ARCHAEOLOGICAL SERVICES WYAS

A165 Reighton Bypass, Reighton North Yorkshire

Excavation, Evaluation and Watching Brief

Part 1: Report

August 2007

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North Yorkshire County Council

A165 Reighton Bypass

Reighton

North Yorkshire

Excavation, Evaluation

and Watching Brief

Part 1: Report

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SUMMARY

This document deals with the archaeological discoveries made during excavations on the route of the proposed A165 Reighton Bypass. Excavation confirmed that the long distance prehistoric earthworks known as the 'Argham Dykes' ran through the excavation area and showed that the parallel ditches had two distinct phases. That these large ditches form a continuation of the 'Argham Dykes' is confirmed, though unfortunately no dating evidence was recovered from the fills associated with the earliest phase, and the postulated Late Bronze Age date for the construction of these remains has not been confirmed. A later phase consisted of a possible Iron Age enclosure and a mid to Late Iron Age roundhouse. Other archaeological remains included pits, post-holes, part of an Iron Age and Romano-British field system, medieval quarry pits, medieval or post-medieval furrows, and a partially revealed ring ditch, possibly the remains of a ploughed-out round barrow. An Iron Age/Romano-British inhumation was discovered during the evaluation phase of the project, and it was expected that more human remains would be present on site; this, however, proved not to be the case though juvenile human remains were recovered from a pit.

Finds from the site consisted predominantly of Iron Age and Romano-British pottery, though Neolithic, Bronze Age and medieval pottery were also recovered, along with relatively small amounts of flint, animal bone and shell. The only significant copper-alloy find was a Romano-British 'loop fastener'. Radiocarbon dates, where they appear in the text, are expressed as calibrated years BC or AD and at 2 sigma (95% confidence).

1 Introduction

1.1 Project Background

Archaeological Services WYAS were commissioned by Golder Associates (UK) Ltd on behalf of North Yorkshire County Council to carry out the excavation of two areas (Areas A and B); the stripping and mapping of a further area (Area C); the evaluation by trial trenching (Area D); the survey and photographic building recording of two pillboxes (Area E); and a watching brief on selected areas during the main topsoil strip (Areas F1-7). Subsequent to the stripping and mapping, excavation was carried out on Area C (Figs 2 and 3).

The main archaeological works took place between 6 February and 7 April 2006, with the watching brief taking place between 13 July and 16 October 2006. All work was done in accordance with a specification prepared by Paul Wheelhouse of Golder Associates (UK) Ltd (2006), a Project Design prepared by ASWYAS (2006a), recognised guidelines and professional standards (e.g. IFA 1994a; 1994b; 1995), and Industry best practice.

This document reports on the archaeological remains found on excavations on the route of the A165 Reighton Bypass. This report is not concerned with the previous evaluation on the site, though previous assessments have formed part of the research for this document and where relevant, previous work is referenced in the text.

This document is accompanied by, and should be read in conjunction with, relevant illustrations and tables which appear in the Appendices.

1.2 General Location

The village of Reighton lies on the western edge of the North Yorkshire Wolds (Fig. 1), on gently undulating land, with the ground falling steeply towards the coast approximately 3km to the east. The proposed route of the bypass passes to the north-west, west and south of the village of Reighton, 4.5km to the south-east of Filey, North Yorkshire (NGR 513000 475590 to 512000 476700, Figs 1 and 2). The proposed scheme involves the construction of a new 10m wide road with a 1m hard verge, to the west of Reighton joining the A165 at two points; Sands Lane 1.7km to the north of the village and 0.9km to the south near ‘The Dotterel’ public house. Roundabouts are to be constructed at both points.

1.3 Soils and Geology

The soils of the area consist of:

- Burlingham 2 Association, described as 'Deep fine loamy soils with slowly permeable subsoils and slight seasonal waterlogging. Some well drained fine and coarse loamy soils' (SSEW 1983, 572o)
- Hunstanton Association, described as 'Deep well drained often reddish fine and coarse loamy soils. Some similar calcareous soils over chalk' (SSEW 1983, 571r)
- Wick 1 Association, described as 'Deep well drained coarse loamy and sandy soils, locally over gravel…Slight risk of water erosion' (SSEW 1983, 541r)

The Drift geology (BGS 2006) of the area consists of:

- Glacial sand and gravel
- Undifferentiated river terrace deposits
- Glacial till

The Solid geology (BGS 2006) of the area consists of:

- Lower Cretaceous chalk including red chalk
- Jurassic Amptill and Kimmeridge clay

1.4 Location of Archaeological Works

Area A was located at the junction of the Bridlington Road (A165) and the Grindale Road, to the south of 'The Dotterel' public house (Fig. 3). Area B was located on the west side of the Hunmanby Road (B1229) where it meets the Grindale Road, and to the west of 'The Dotterel' public house (Fig. 3). Area C was located at the junction of the Reighton Road (A165) and the Speeton Road (B1229), to the east of 'The Dotterel' public house. These areas were generally flat and lay at *c.*122m AOD

Trial Trenches

The two trial-trenches (D1 and D2) each measuring 40m by 2m were located on the east side of the Hunmanby Road (B1229), to the north-east of Whyncrest (NGR 512340 475680). The area slopes gradually from south to north and lies at *c.*108m AOD (Fig. 4).

Pillboxes

The two prefabricated reinforced concrete Second World War pillboxes (Area E) were both towards the southern end of the proposed A165 Reighton Bypass (Fig. 5). One was within and the other was adjacent to the road corridor just off the A165 Moor Road (Pillbox 1 at NGR 512031 476504 and Pillbox 2 at NGR 511993 476598).

Watching Brief Areas

The watching brief areas (Areas F1-7) were defined prior to main excavation works (Fig. 2)

Prior to the main archaeological works, a series of test pits at points along the proposed route of the bypass were excavated in the presence of an archaeologist, their locations are listed in Table 1.1 below.

Table 1.1. Location of Test Pits

Test pit	NGR
TP 1	511961 476744
TP 2	511973 476702
TP 3	511991 476646
TP 4	512015 476604
TP 5	512016 476561
TP 6	512396 475575
TP 7	512375 475625
TP 8	512357 475672
TP 9	512334 475712

2 Archaeological Background

Much of the following has been taken from a 'Desk-Top Assessment' prepared as part of an 'Updated Stage 2 Cultural Heritage Assessment' (BHWB Ltd 2003).

2.1 Mesolithic (*c.* 8500 – 3500 BC)

Hunter-gatherer groups were active in this area of Yorkshire during this period; although the transitory nature of human activity and intensive agricultural activity in later periods means that that evidence is very rare. The most likely surviving artefacts are flints which have been recovered from upland areas and along the 'Great Wold Valley' (BHWB Ltd 2003; Manby *et al.* 2003). The Mesolithic site of Star Carr, 7 miles to the north-west has not only produced flint artefacts but also wood, bone and horn. Environmental evidence from Willow Garth, 8km to the south of Reighton, suggests periods of forest clearing and regeneration, probably to encourage wild game or staple food sources such as hazel (Stoertz 1997). No remains dating to this period have been identified in the immediate vicinity of the route of the proposed road.

2.2 Neolithic (*c.* 3500 – 2000 BC)

Upland areas such as the Yorkshire Wolds were increasingly populated during this period with the exploitation of domesticated cattle and grain crops allowing increased population densities. This period also saw the construction of large communal burial mounds and other ritual sites such as four cursus monuments and a standing stone at Rudston (BHWB Ltd 2003; Manby *et al.* 2003), which suggests an increase in social organisation and sophistication. No remains dating to this period have been identified in the immediate vicinity of the route of the proposed road.

2.3 Bronze Age (*c.* 2000 – 700 BC)

The Land clearance and cultivation which had begun on a significant scale during the Neolithic period increased during this period in the region, as did social and economic complexity. Cultural differences started to become more marked with differences in material culture being part of cultural, regional or tribal expression. Over time a more stratified social order appears to have developed, with individual burial practices superseding the communal ones of the preceding period. In 1978 a possible round barrow and trackway were observed as cropmarks 1.3km to the north of the site, and a possible

barrow group was recorded 1km to the north of the main excavation areas, though there is a suggestion that these may be the remains of a medieval mill (see medieval section below).

It is believed that long distance linear earthworks originated during this period (Dent 1983a; Stoertz 1997). The 'Argham Dykes' which run between Reighton and Rudston may be an example of such an earthwork. Climatic deterioration from about 1200 BC and increased population pressure on the available land may have led to social and economic stress. Defended settlements, for example Thwing, 6 miles to the south-west of Reighton, and Greenlands near Low Claythorpe, are more common from this period (Stoertz 1997, 46), though unenclosed settlements persist, indicating local variations between areas of conflict and stability.

2.4 Iron Age (*c.* 700 BC – AD 43)

Populations generally increased during this period, with a proliferation of settlements of small rectilinear enclosures containing one or a small number of buildings. Some settlements appear to have been connected by trackways while others are separated by open ground and seem highly independent. Characteristic of the Wolds are 'ladder' settlements, with enclosures arranged along the sides of a trackway or ditch; in some cases these form major complexes extending over 1.5km or more, often showing evidence of expansion and contraction over time. Examples of such complexes include Wetwang and Garton Slacks, to the north of Rudston and near Burton Fleming (Stoertz 1997). Some of these settlements were occupied for a considerable length of time, and some exhibit continuity into the Romano-British period (e.g. Bishop 1999; Mackey 2003, 119; Fenton-Thomas 2005, 69).

Characteristic burial practices in this area during this period are localised groups of square barrows occasionally containing a cart or chariot. There is a concentration of such barrows along the Great Wold valley (Stoertz 1997). Some are associated with settlement complexes while others are more isolated and are within rectilinear enclosures. A small square barrow cemetery was recorded south and south-east of Caddy Barf Farm, about 2km south-east of Reighton, and at Rudston 5km to the south-west. A chariot burial was also discovered during the digging of a clay pit near Hunmanby railway station in 1907 (Sheppard 1907).

A long distance, prehistoric earthwork running north-east to south-west truncates part of the main excavation (Area B). This earthwork runs between Rudston and Reighton for approximately 8km, but is ploughed out along much of its course. Some sections of bank do survive, such as near Bridlington gate, Rudston, where the banks survive up to 2m high and are up to 10m wide; this earthwork is known as the 'Argham Dykes' (Stoertz 1997).

2.5 Romano-British (AD 43 – 450)

The Romano-British period is characterised by increased social and economic sophistication, nucleation of settlements, improvements in infrastructure and communications, and distinctive and homogeneous material culture. Although some areas were highly Romanised, many settlements remained resolutely indigenous in character and this is reflected in the material culture. Numerous field system and settlement sites have been identified from aerial photographs demonstrating a probable high population density for this period (Dent 1983a, 35; Spratt 1993, 155; Fenton-Thomas 2005, 75).

2.6 Early medieval (450 - 1066)

The economic and social decline associated with this period affected North Yorkshire as much as other parts of Britain. Politically the region was unstable. Scandinavian raids in the latter part of this period also took their toll on the economic and political stability of the area. Place-name evidence has often been used to indicate likely settlement distributions and ethnic grouping for this period, for example: villages with suffixes such as –ham (homestead or village) –ton (farmstead, enclosure or manor) and –wic (dwelling, dairy or village) may be Anglo-Saxon in origin, while elements such as –by (farmstead), –thwaite (clearing or meadow), or –booth (shelter) indicate Scandinavian influence (Whynne-Hammond 1992; Gelling 1978).

The name Reighton incorporates the –ton element, with the first element stemming from the Old English rigg- meaning strip (Whynne-Hammond 1992), probably a reference to the ridge on which Reighton stands.

Archaeological evidence for activity during this period is uncommon, though this may be due more to a lack of excavation rather than a lack of activity which is attested by place name evidence.

2.7 Medieval (1066 -1540)

Following the Norman Conquest, administrative hierarchies and subdivisions were put in place and lasted until they were replaced by the civil parish system in the 19th century. This part of Yorkshire was divided up into a number of wapentakes, which were divided into parishes and townships. The proposed road runs through the historic townships of Reighton and Hunmanby, the boundary between them is the Reighton Gill, then further inland it follows field boundaries across Wan Dale and then continues along part of the Argham Dykes (BHWB Ltd 2003).

Reighton is mentioned in the Domesday Book, with land belonging to the King, then later the Counts of Aumale and then the Salvin family. Other land in the area was part of Berenger de Todni's manor of Buckton, this land was later tenanted until 1403 by the Argham family who were major landholders in the region. The Archbishop of York held some lands in the area of Reighton, though it appears to have been split up, later becoming part of the Jordan estate (Faull and Stinson 1986; BHWB Ltd 2003).

Reighton is known as Rycton in the Domesday Book and is later alternatively referred to as Ryhtuna and Rigthona (Smith 1937).

Cropmarks observed from aerial photographs seem to indicate the presence of a holloway along with earthworks which may be associated with a medieval mill, possibly mistaken for barrows (see also Bronze Age section above), and a possible medieval or later ditched trackway 500m to the north-west of the main excavation areas. St Peter's Church at Reighton has 12th-century origins, though was heavily restored between 1897 and 1905 (BHWB Ltd 2003).

2.8 Post-medieval (1540-1850)

This period is characterised by an increasing sophistication in rural society and economy. As the period went on, land ownership became more centralised, even before the enclosure acts, so that by the turn of the 19th century there were only two significant landholders in the area; the Stricklands and the Osbaldestons.

In 1674 Reighton is recorded as having 38 households, most of which were small one-hearth cottages (Allison 1974). The villages had two distinct settlement foci, one at the lower village around St Helen's Lane and one at the higher end to the south-east of the

church. The 1820 Enclosure map shows that Reighton Hall was constructed over medieval crofts and tofts, which to some extent survive as visible earthworks to the north and south-west of the village. This twin settlement focus may reflect land ownership patterns during the late medieval and early post-medieval periods.

A windmill is recorded at Reighton in 1713 and there was small-scale chalk and gravel quarrying during this period. The Dotterel public house was built in the early 1820s (Allison 1974).

2.9 Modern (1850 – present)

In 1847 a railway opened from Bridlington to Scarborough with stations at Filey and Hunmanby bringing an influx of people into the area. Tourism flourished in the area particularly from the beginning of the 20th century and is still an important element in the local economy. During the Second World War, and in common with much of the coast, defences were constructed at strategic points to defend against the expected German invasion, and from the beginning of the war until February 1942 more than 20,000 pillboxes were constructed, two of which survived along the proposed route of the bypass.

2.10 Summary of Previous Archaeological work

A Desk-Based Assessment which identified thirteen sites of archaeological importance within a study area (Clarke 1991) was subsequently incorporated into an Environmental Appraisal and Landscape Report (RPS Cloustan 1993). Lancaster University Archaeology Unit carried out a programme of archaeological fieldwalking, earthwork survey and geophysical survey in 1993 (Quartermaine 1994). Ten years later an Updated Stage 2 Cultural Heritage Assessment Report incorporated the results of earlier work and identified 45 archaeological sites within a study area of which seven were affected by the proposed road scheme (BHWB Ltd 2003). Further geophysical surveys were carried out during April 2003 in the area of 'The Dotterel' public house identifying anomalies consistent with prehistoric or Romano-British activity (GeoQuest Associates 2003). These anomalies appear to represent the continuation of the long distance linear earthworks know as the 'Argham Dykes', a ditched enclosure, and several elements of a possible field system. These anomalies were the primary focus of the trial trenching programme carried out between 22 March and 8 April 2004. This confirmed the presence

of prehistoric and Romano-British remains, including the identification of ditches corresponding to the projected course of a Bronze or Iron Age long distance earthwork and possible tribal boundary known as the 'Argham Dykes' (ASWYAS 2004b). An inhumation of likely Iron Age date was also discovered.

3 Aims and Methods

3.1 General Objectives

The general objectives of the detailed excavations in Areas A and B were extended to Area C and were:

- to establish the presence/absence of all archaeological remains within the excavated area;
- to determine the extent, condition, function, relationships, character, quality of survival, importance and date of all archaeological remains present, and;
- to provide information that will allow a full understanding of the significance of the archaeological record retrieved from the site to be made.

3.2 Specific Objectives

The specific objectives were to identify and record in plan and in section all archaeological features within the excavated areas and to recover an adequate sample of the deposits and related artefactual and ecofactual materials to allow the determination of:

- the chronology of the site, its components and detailed phases;
- the inter-relationships between the various components of the site;
- the function of the various components of the site, and;
- the potential co-existence or succession of sites in the immediate vicinity.

The objective of the pre-construction strip and record (Area C) and the strip and record during construction (Areas F1-F7) was:

- to identify in plan and gather sufficient information, through sampling and testing, to establish the extent, date and function of any archaeological remains that exist within the selected areas.

The objectives of the sample excavations in Area D (via trial trenching) were to:

- confirm the results of the previous geophysical and fieldwalking surveys, and to test for the presence of any archaeological deposits or features associated with the geophysical anomalies and/or fieldwalking finds;
- identify, as far as possible given the constraints of the trenching proposals, any archaeological deposits or features within the various fieldwork areas not identified by any previous stages of investigations;
- determine the date, nature, depth and stratigraphic complexity of any archaeological features and deposits within the various fieldwork areas, and;
- assist in determining the scope, cost and duration of any further excavation works that might be required to mitigate against the proposed road improvement proposals.

The objective of the photographic building recording and rapid survey (Area E) was to create an archive record, via photography, of a specified historical feature prior to its removal by the route scheme and to record its position and height in relation to OS digital mapping.

3.3 Methodology

The methodology employed on all stages of the project is exhaustively detailed elsewhere (Appendix 5; Wheelhouse 2006; ASWYAS 2004a, ASWYAS 2006a; ASWYAS 2006b; ASWYAS 2007) and is summarised below.

Excavation

The limits of each excavation area (excluding Areas F1-F7) were accurately laid out using digital data supplied by Golder Associates (UK) Ltd. All trial trenches and the larger excavation areas were opened and the topsoil and any recent overburden removed, using a 360˚ mechanical excavator fitted with a wide, toothless ditching bucket, down to the first significant archaeological horizon or natural subsoil, under direct archaeological supervision at all times. Spoil was routinely scanned for artefacts during machine excavation (including the use of a metal detector). All remains were surveyed to produce a pre-excavation plan to aid early comprehension of the site and the planning of the

location and excavation of sections across archaeological features. A sufficient sample of all archaeological features and deposits was excavated in an archaeologically controlled and stratigraphic manner in order to understand the full stratigraphic sequence, down to naturally occurring deposits.

Argham Dykes

It was agreed with the County Archaeologist to remove the first metre of deposits in the two large ditches believed to represent part of the Argham Dykes in Area B, by the careful use of a mechanical excavator. This allowed more extensive investigation by hand of the basal fills of the ditches to be carried out in an attempt to recover datable artefacts and/or samples suitable for radiometric determinations.

3.4 Recording

A full written, drawn and photographic record was made of all material revealed during the course of the excavations and these records have been indexed, ordered, quantified and checked for internal consistency. All artefacts recovered and retained from the excavations have been packed with appropriate materials and are stored in conditions that ensure minimal deterioration takes place. Written and drawn records are supplemented by photographs. General photographs and 35mm colour slides of the site were taken before, during and after excavation. Digital images were taken to supplement the site photographic archive. The ASWYAS unique project code is RBY, the ASWYAS number issued to the project is 2885.

3.5 Finds Recovery Strategy

A finds recovery and conservation strategy was discussed with Scarborough Museum (the recipient museum). This strategy followed relevant guidelines (Watkinson 1987; Society of Museum Archaeologists 1993; United Kingdom Institute for Conservation 2001). Any recording, marking and storage materials are of archival quality, and recording systems are compatible with the recipient museum. All bulk finds were washed and marked with indelible ink in a manner agreed with Scarborough Museum and were appropriately bagged, boxed and catalogued.

3.6 Environmental Sampling Strategy

Deposits were sampled for the retrieval and assessment of the potential for analysis of biological remains. A strategy for the recovery and sampling of environmental remains from the site was agreed and followed relevant guidelines (Association for Environmental Archaeology 1995; English Heritage 2002).

3.7 Watching Brief (Areas F1-7)

Seven areas were selected for archaeological monitoring (F1-7) by Golder Associates Ltd. All possible archaeological features were investigated during the machine excavation of the road corridor and appropriate written, drawn and photographic records were made. All identified archaeological features and all finds were tied to the national grid using a handheld GPS and measured from convenient points such as field boundaries and related to chainage where possible.

The stripping was undertaken by the use of a Komatsu D65 Bulldozer, and a 360˚ machine fitted with a toothed bucket. Monitoring of the groundworks took place intermittently between 13 July and 16 October 2006.

3.8 Watching Brief (Test pits)

The positions of the test pits were established by a surveyor working for Balfour Beatty and then excavated using a JCB under the direction of a Balfour Beatty employee. The test pits were excavated to a maximum of 3.2m below ground level for geotechnical purposes.

The fieldwork was carried out on the 9 February 2006. Originally ten test pit locations were planned, though one was abandoned due to problems of access.

3.9 Stratigraphic Analysis

A matrix of contexts was prepared for each site using the written, drawn and photographic records. This matrix was checked and updated in light of finds and scientific dating. The stratigraphic relationships and dating information were used to subdivide the matrix into phases. As far as possible, undated features are phased by a comparison of the form and a consideration of the spatial patterning of those features that can be securely dated. The function of remains is, where possible, further inferred

through consideration of the nature of associated artefacts and ecofacts, and by comparisons with features and structures of similar form recorded on other sites in the region.

3.10 Specialist Analysis

All specialists were provided with copies of the project design, the interim report and plans complete with group and context numbers. A full list of specialists is provided in the Acknowledgements (Section 8) of this report. All specialists were required to sign a contract and to conform to recognised standards (IFA 1999).

3.11 Archive

A site archive has been prepared in accordance with accepted national and regional guidelines (United Kingdom Institute for Conservation 1990; 2001; Museums and Galleries Commission 1992; English Heritage 1991; Society of Museum Archaeologists 1993; 1995). The final archive includes the following:

- a project summary;
- copies of the project design, Interim Report, Updated Project Design and Final Report;
- an archive guide (an introduction to the archive stating its principle and layout);
- an index to the contents of the archive, and;
- the complete site archive including all records, data, reports, produced during excavation, post-excavation, finds processing, conservation, and analysis, as well as the complete material archive.

Table 3.1. Archive Quantification

File no.	Description	Quantity
1	Context register	17
1	Context cards	392
1	Group sheets	25
1	Trench sheet	2
2	Environmental samples register	5
1	Drawing register	8
2	Drawings	143
Loose Plans	Large drawing sheets	30

4 Results

4.1 Summary of Results

Areas A, B and C (Fig. 3)

Archaeological remains consisted of two large parallel ditches, large pits, post-holes and a series of linear ditches forming a possible enclosure within which were the remains of two partially revealed putative ring gullies. A number of other ditches forming a possible field system were also recorded.

Because of the quite large gaps between Areas A, B and C, it is difficult to establish a chronology unifying the three areas, not least because of the apparent differences in character between them.

Medieval activity on site was confined to some large quarry pits in Area B and possibly plough marks in Area C.

Table 4.1. Quantification of archaeological remains in Area A, B and C

	Totals
Area	6,977m²
No. of ditches	21
Total ditch length	769m
Post holes	26
Pits	30
Ring gullies	2
Plough marks	11
Length of plough marks	74m

Area D (Fig. 4)

Two trial trenches each measuring 40m by 2m were excavated in Area D. They were positioned in order to investigate a curving anomaly identified by a geophysical survey and to test the area for archaeological features associated with a flint scatter identified during field walking in 1993 (Wheelhouse 2006). The geophysical anomaly appeared to be a land drain as no other archaeological features were observed within the trenches.

Area E

Two prefabricated, reinforced concrete Second World War pillboxes were recorded in Area E (Figs. 2, 5 and 21, Plates 13 to 16).

Areas F1 – F7

Archaeological Visibility

Excavation was by bulldozer and removal of the spoil by heavy dumper trucks which caused very deep rutting. The weather was often wet during the fieldwork and reduced the visibility of potential archaeological remains. ASWYAS were not always informed by the contractor that groundwork was commencing and consequently monitoring sometimes took place retrospectively after the ground had been tracked over a number of times.

Area F1 (Figs 2 and 5)

This area measured approximately 500m by 40m orientated in a north-west to south-east direction. It stretched across a field which sloped down towards a valley floor and rose to both south-east and north-west. This field contained Pillbox 1 (see above).

The excavations removed the topsoil which was between 0.30 and 0.40m deep; this went straight down onto natural reddish-brown clay with chalk inclusions and deposits of boulder clay. No archaeological remains were observed in this area and no finds were recovered.

Area F2 (Figs 2 and 4)

This area measured 220m by 46m orientated in a north-east to south-west direction. This area was located at the top of a hill with ground sloping up to it from the south. This field contained trial trenches D1 and D2.

The excavations removed the topsoil which was about 0.30m deep and directly above natural deposits of yellowish-brown clay with abundant rounded chalk fragments.

The excavation of this area was not monitored archaeologically. It was clear that it had been stripped several days before the archaeologist was requested to attend site as the soil

was clearly compacted and rutted by heavy traffic. This compaction meant that visibility of potential archaeological remains was negligible. The southern end of the area was also heavily disturbed, and up to 6m of soil had been removed, without an archaeologist in attendance.

A large pit (5002) was discovered which evidently had contained a large pot. The pit was about 0.50m deep and 0.50m wide and cut into the natural subsoil. The pit appeared to have been cut to fit the pot exactly. There was a very thin clay deposit lining the pit (5001) between the pot and the cut (0.01-0.03m thick). This deposit had an impression of the pot it had contained. The pot which had lain in the pit was removed by an amateur archaeologist who had trespassed on the site and excavated it without properly recording it. The pot was eventually recovered along with a small sample of the soil it contained. No other archaeological remains were encountered in this area.

Area F3 (Fig. 2)

This area measured 320m by 40m in a north-west to south-east direction. The area stretched from the south side of St Helen's Lane to the car park of Reighton Nursery.

The excavations removed the topsoil which was between 0.40 and 0.50m deep. In the southern area near the road leading to Mount Pleasant Farm the topsoil overlay redeposited soil up to 2.0m thick. Below the topsoil and made ground was yellowish-brown clay-with-chalk natural.

Only one possible ditch was observed to the west of Mount Pleasant Farm buildings. This was recorded using a handheld GPS and located relative to convenient boundaries.

ASWYAS was not afforded the opportunity to monitor the southern stretch of the road leading from Mount Pleasant Farm to the car park of Reighton Nursery.

Area F4 (Figs 2 and 6)

Located adjacent to the Hunmanby Road, south-west of the Dotterel Public House, Area F4 measured 180m long and 20m wide and was orientated in a north-west to south-east direction.

The removal of topsoil and subsoil revealed the presence of two ditches and a large sub-

circular feature. Both features were recorded using a handheld GPS and located relative to convenient boundaries.

Located central to Area F4, a north-east to south-west orientated ditch (5004) which measured approximately 0.90m in width was exposed for a length of 16m. At about 7m west of this ditch, a large quarry pit (5005) measuring about 9m in width and 6m in length was also partially exposed.

Crossing the site on a south-east to north-west alignment and located *circa* 8m west of the quarry pit, a large ditch (5006) measuring about 1.80m in width and 78m in length was observed. Running parallel to this ditch and located 6m north, a modern 'water main' was also exposed.

Due to the advance road work in Area F4, ASWYAS was not afforded the opportunity to investigate these features.

Area F5 (Figs 2 and 3)

This area measured 70m by 40m, forming a triangular shape following the curve of the proposed roundabout at the southern end of the proposed road corridor.

Part of the central area of the roundabout was not excavated, as it was built up to form the roundabout's central island.

The excavations removed the topsoil and subsoil between 0.40 and 0.70m in depth over natural chalk bedrock.

Two ditches which appeared to be the continuation of ditches recorded during the main excavations in this area (Groups 6 and 8) were encountered. Both ditches terminated within the area monitored and may have formed an entrance way with the other ditches. No finds were recovered.

Area F6

This area measured 140m by 30m and formed an irregular shape following the curve of the proposed roundabout. Area F6 was located at the southern end of the road corridor.

Most of this formed the roundabout and so was not excavated. The only area which was

monitored was the south-west end of F6.

The excavations removed the topsoil and subsoil (same contexts as main excavations) which combined were *c.*0.40-0.50m deep. These deposits were located on top of natural chalk bedrock.

This area contained two small ditches which appeared to be the continuation of ditches recorded during the main excavations (Groups 3 and 4). Both ditches continued onto the Grindale Road but were not observed in Area F5, so presumably terminated within this area. No finds were recovered.

Area F7

This area measured 40m by 10m, forming a triangular shape following the curve of the proposed road at the southern end of the road corridor.

The topsoil was thin in this area; between 0.10 and 0.20m thick with subsoil also between 0.10 and 0.20m thick directly above natural chalk bedrock. ASWYAS was not afforded the opportunity to monitor the actual excavation and stripping of this area. A possible pit was recorded in the section of a pipe trench through this area and may be part of the group of pits recorded during the main excavations (Area A).

Test Pits

No archaeological remains were encountered in any of the geotechnical test pits excavated along the proposed route of the A165 Reighton Bypass and no finds were recovered.

Table 4.2. Summary of observations from test pits*

Test Pit	Chainage	Dimensions	Max Depth	Topsoil thickness	Subsoil thickness	Natural geology
1	CH100	2.4×0.6	1.7	0.40	0.30	Brown-red boulder clay
2	CH150	2.3×0.6	1.5	0.30	0.20	Red boulder clay
3	CH200	2.6×0.6	3.3	0.30	0.60	Red boulder clay
4	CH250	2.6×0.6	2.8	0.30	0.30	Red boulder clay
5	CH300	2.5×0.6	2.6	0.30	0.35	Brown-blue Boulder clay
6	CH1350	2.8×0.6	3.2	0.30	0.45	Brown Boulder clay
7	CH1300	2.5×0.6	3.0	0.30	0.40	Red-brown Boulder clay
8	CH1250	3.0×0.6	3.0	0.25	0.25	Brown boulder clay
9	CH1200	2.8×0.6	3.0	0.30	0.30	Red boulder clay

*All dimensions are in metres

4.2 Phased Development of the Site

Introduction

The results presented below follow a proposed phasing scheme worked out on the basis of a thorough examination of the stratigraphic data and the pottery evidence. The site has been divided into five principal period phases; in some instances stratigraphically indeterminate archaeological remains have been grouped in the same phase for purposes of explanation and because they are indistinguishable on the basis of the pottery data. As a consequence of the results of scientific dating and further analysis of the pottery, the phasing has been refined with a number of sub-phases being allocated.

- Phase 1 describes archaeological features which pre-date the main occupation of the site (Phases 2 and 3) and are defined as pre-Late Iron Age. This does not mean, however, that they are considered to be contemporaneous, or even necessarily close in date to each other;
- Phase 2 is divided into three sub-phases, describing the development of the site during the Late Iron Age. This is on the basis of there being no Roman wheel-turned pottery recovered from these contexts, though it is accepted that this is a crude differentiation and that coarse ware fabrics continued well into the Romano-British period and that some archaeological features may have been in use, or have been a part of the site for a long duration. The stratigraphic progression of the site appears to support the scheme as it is presented;
- Phase 3 is divided into two sub-phases, describing a Romano-British field system and a number of pits;
- Phase 4 describes medieval and post-medieval remains defined on the basis of pottery dates and feature morphology. This consists of large medieval quarry pits and a number of furrows. The furrows have been removed from the phase and detailed plans as they obscure more significant archaeological features, though they are shown in the Assessment Report (ASWYAS 2007, figs 3 and 18);
- Phase 5 describes second world war pillboxes surveyed and photographically recorded prior to demolition, and;

- In addition to the above phasing, there are a number of archaeological remains which did not contain any datable finds, had no stratigraphic relationship with datable remains and could not otherwise be associated with other dated archaeological features; these are described as 'undated' and consist of a partly-revealed ring gully, a linear ditch or gully and a number of pits.

Table 4.3. Archaeological Remains Allocated to Phase

Phase	Interpretation	Context/Groups (G)
1	Pre-Late Iron Age: this phase consists of an east-west boundary ditch, the first phase of the 'Argham Dykes', a ring ditch, a small gully and a number of pits.	G14, G17, G19, G22, G23, G25, 1124, 1136, 1377, 1379, 1385, 1387, 1389, 1391, 1393, 1395, 1396, 1398, 1400,
2a	First phase of the Late Iron Age period: this phase consists of the second phase of the 'Argham Dykes', and a curvilinear ditch.	G15, G18, G24,
2b	Second phase of the Late Iron Age period: this phase consists of an enclosure ditch and several pits and post-holes.	G13, , 1107, 1221, 1225, 1227, 1235, 1240, 1245, 1247, 1255, 1265, 1272, 1275, 1279, 1281, , 1307, 1329, 1351, 1355,
2c	Final phase of the Late Iron Age period: this consists of a second phase of the enclosure ditch, field enclosure ditches, and few pits.	G7, G8, G9, G10, G12, 1046, 1109, 1112, 1318, 1319, 1369, 1371,
3a	First phase of the Romano-British period: this consists of a Romano-British field system, and a number of large pits.	G1, G3, G6, G11, G26, G27, 1002, 1217, 1229, 1269, 1283, 1285, 1289, 1297, 1299, 1034, 1291, 1217
3b	Second phase of the Romano-British period: this consists of Romano-British field system ditches.	G4, G5, 1311,
4	Medieval and later: this phase consists of plough marks and three large quarry pits	G20, G21, 1083, 1087, 1093, 5002,
5	Modern WW2 Pill boxes.	Pillboxes one and two
Undated	This consists of undated discrete features such as post-holes and pits not associated with other remains.	G2, G16, 1032, 1036, 1038, 1040, 1048, 1050, 1066, 1068, 1070, 1215, 1263, 1267, 1277, 1293, 1303, 1333, 1339, 1343, 1345, 1347, 1359, 1381, 1383, 5004, 5005, 5006,

4.3 Radiocarbon Dating

The following table presents the results of five (calibrated) radiocarbon dates (see also Appendix 4 and 5). Sample 1247 was substituted for 1159, due to a lack of collagen in the latter. Human remains from pit (0111) are from the evaluation phase. All except No. 1 are from contexts which also contained pottery.

Table 4.4. Radiocarbon dates

No.	Feature type	Material	Date	Pottery dates	Phase
1	Grave (0111)	Human bone	10 BC – AD 140 (Beta 225777)	None	3b
2	Ring ditch (G23)	Carbonised seed	410-360 BC and 290 -240 BC (Beta 225781)	Iron Age	1
3	Pit 1296	Human bone	150- 140 BC and 110 BC – AD 60 (Beta 225780)	Iron Age / Romano-British pottery	3a
4	Ditch recut (1197, G24)	Cattle tibia	200 BC to AD 0 (SUERC 13326)	Iron Age	2a
5	Ditch (1242, G5)	Cattle jaw	50 – 220 AD (SUERC 13325)	Iron Age / Romano-British	3b

4.4 Phase 1: Pre- Late Iron Age Remains

This phase consists of the earliest phase of the 'Argham Dykes', considered to be of probable Bronze Age or early Iron Age date (see Discussion), ring gully G23 in Area C, which is radiocarbon dated to 410 to 360 (cal) BC and 290 to 240 (cal) BC (Beta 225781, Appendix 4), ditch G14 and gully G17.

'Argham Dykes' G19 and G25 (Figs 12 and 17; Plates 8, 9 and 10)

These parallel ditches are orientated on a south-west to north-east direction, and run from the site for about 8km (Stoertz 1997, map 2). They are located at the north-west end of Area B (Fig. 12). Both ditches were exposed for a length of 21m, and a sample of each ditch of about 8m long, 5m wide and 2.50m deep, was excavated. The only find from the fills of either ditch was a single rodent tooth from 1176; this was almost certainly from a burrowing animal and is therefore probably intrusive.

Excavation revealed that the 'Argham Dykes' had two distinct phases. The earliest phase consisted of a large ditch with a V-shaped profile. That these large ditches form a continuation of the 'Argham Dykes' is certain, though unfortunately no dating evidence was recovered from the fills associated with this phase. Consequently, the postulated Late Bronze Age date has not been confirmed, though there are stratigraphic reasons for assigning these ditches to this period (see Discussion). The later phase of this earthwork is described below (Ditches G18 and G24).

Table 4.5. Ditches G19 and G25

Context	Group	Description	Dimensions
1177	19	North-east to south-west V-shaped profile linear cut filled by a reddish-brown silty clay (secondary fill, 1175) and a grey brown sandy silt (primary fill, 1176)	W. 2.50 D. 1.54
1200	25	North-east to south-west V-shaped profile linear cut filled by two deposits; a dark grey brown clay silt (secondary fill, 1198) and a dark brown sandy silt (primary fill, 1199)	W. 2.30 D. 1.20

Gully G17 (Fig. 12)

Located at the north-western end of Area B, and running into the eastern Argham Dyke (G19), gully G17 appeared to have been truncated by the later phase of the Argham Dyke (G18). Aligned on a north-west to south-east direction, and measuring 8m in length, 1.69m in width and 0.12m in depth, this gully appeared to be a very shallow curvilinear feature with a U-shaped profile, filled by a single deposit from which no finds were recovered. It is possible that the gully drained into the eastern Argham Dyke ditch, while it was still open, to improve local drainage using the deep ditch as a convenient sump.

Ditch G14 (Figs 12 and 16)

Located in Area B, ditch G14 crossed the site in a south-east to north-west direction, where it ran into a ditch of the Argham Dykes (G19). Exposed for a length of 115m, and aligned south-east to north-west, ditch G14 had a V-shaped profile, measuring 3m in width and about 1.20m in depth. Some fragmented animal bones were recovered from a tertiary deposit (1163). This appeared to be a substantial ditch which ran into the eastern 'Argham Dyke' ditch (G 19). It is possible that this ditch used the Argham Dyke ditch as a convenient boundary to form an enclosure, though the course of this could not be traced due to the limitations of the excavation area.

Table 4.6. Ditch G14

Context	Group	Description	Dimensions
1122	14	South-east to north-west ditch same as 1207 filled by a pale brown silty clay deposit (1120) and a brown silty clay deposit (1121)	W. 1.45 D. 0.62
1130	14	South-east to north-west V-shaped profile linear ditch filled by a mid-brown silty clay deposit (1129)	W. 2.60 D. 0.86
1158	14	South-east to north-west U-shaped profile of linear ditch filled by three deposits; a dark brown silty clay (tertiary fill, 1155), a mid brown sandy clay (secondary fill, 1156) and a red brown sandy clay (primary fill, 1157)	W. 3.10 D. 1.45

Context	Group	Description	Dimensions
1167	14	South-east to north-west U-shaped profile of linear ditch filled by four deposits: a light greyish-brown sandy silt (tertiary fill, 1163), a dark grey brown sandy silt (secondary fill 1164), a dark orange and a dark brown sandy silt (primary fills, 1165 and 1166)	W. 4.14 D. 1.20
1193	14	South-east to north-west V-shaped profile of linear ditch filled by two deposits; a mid-orange brown silty clay (secondary fill. 1191) and a dark orange brown silty clay (primary fill, 1192)	W. 3.83 D. 1.52
1207	14	South-east to north-west V-shaped profile of linear ditch filled by four deposits; an orange brown clay silt (fourth fill, 1203), a brown silty clay (tertiary fill, 1204), a dark brown silty clay (secondary fill, 1205) and a brown silty clay (primary fill, 1206)	W. 2.85 D. 1.42

Ring ditch G23 (Figs 18 and 20, Plates 3 and 4)

Located in Area C, this partially revealed penannular ditch or gully was exposed for a length of 22m; the ditch G23 had a U-shaped profile with a concave base, measuring 0.80m in width and 0.20m in depth. A substantial amount of Iron Age pottery (86 sherds) and animal bone was recovered from this ring ditch. Although only half the ditch was within the excavation area, it does appear to be the remains of a roundhouse; though there was no clearly defined internal structure and no hearth was recorded. There was, however, evidence of an entrance to the east, despite this part of the ring ditch being heavily truncated by later features. This ditch is radiocarbon dated to 410 to 360 (cal) BC and 290 to 240 (cal) BC (Beta 225781, Appendix 4).

Table 4.7. Ditch G23

Context	Group	Description	Dimensions
1337	23	Shallow U-shaped profile of a curvilinear ditch filled by a dark orange brown silty clay deposit (1336, same as 1364)	W. 0.69 D. 0.10
1365	23	Shallow U-shaped profile of a curvilinear ditch filled by a dark orange brown silty clay deposit (1364 same as 1366)	W. 0.81 D. 0.19
1367	23	Shallow U-shaped profile of a curvilinear ditch filled by a dark orange brown silty clay deposit (1366 same as 1372)	W. 0.81 D. 0.19
1373	23	Shallow U-shaped profile of a curvilinear ditch filled by a single dark orange brown silty clay deposit (1372 same as 1336)	W. 1.12 D. 0.39

Pit 1124 (Fig. 12)

Sub-circular feature located alongside the northern edge of ditch G14, measuring 0.60m in length, 0.70m in width and 0.45m in depth, and filled by a single brown silty clay deposit (1123) from which no finds were recovered. An isolated pit, that may have

contained a large post, may be related to ditch G14 due to the similarity of both deposits (1120 and 1123).

Pit 1136 (Fig. 12)

A sub-circular feature with a U-shaped profile and an irregular base measuring 1.70m long, 0.75m wide and 0.35m deep, was filled by a single very sterile red brown sandy clay deposit (1135) from which no finds were recovered. Due to the nature of the fill 1135 and the feature's uneven profile, it is possible that this was a tree bole truncated by ditch G13.

Pits and Post-Holes Associated with Ditch G 23 (Fig. 18)

Seven sub-circular discrete post-holes and a small pit (G22) were found within ring ditch G23. One pit (1377) and a single post-hole (1379) were located along the north-eastern edge of Area C, and appeared to have been truncated by a ring ditch (G23). Fragments of Iron Age pottery and animal bones were recovered from these features. Some of the pits and post-holes internal to the ring ditch may have been structural features; other remains are assigned to this phase on the basis of associated pottery, though it is not clear whether they formed part of the putative roundhouse, as only a portion of it was revealed by the excavation.

Table 4.8. Post-holes and pits within Ditch G23

Context	Area	Description	Dimensions
1377	C	Sub-circular U-shaped profile pit filled by three deposits; a mid-orange brown clay silt (tertiary fill, 1374) a mid-grey brown clay silt (secondary fill, 1375) and an orange brown clay silt (primary fill, 1376)	L. 1.92 W. 1.80 D. 0.69
1379	C	Sub-circular U-shaped profile pit filled by a dark grey brown clay silt deposit (1378)	L. 0.50 W. 0.46 D. 0.23
1385	C	Sub-circular U-shaped profile post-hole filled by a dark orange brown silty clay deposit (1384)	L. 0.40 W. 0.37 D. 0.19
1391	C	Sub-circular U-shaped profile post-hole filled by a dark orange brown silty clay deposit (1390)	L. 0.49 W. 0.30 D. 0.19
1393	C	Sub-circular U-shaped profile post-hole filled by a dark brown sandy silt deposit (1392)	L. 1.10 W. 1.00 D. 0.50
1395	C	Sub-circular U-shaped profile post-hole filled by a dark orange brown silty clay deposit (1394)	L. 0.18 W. 0.18 D. 0.18
1396	C	Sub-circular U-shaped profile post-hole filled by a dark grey brown clay silt deposit (1401)	L. 0.41 W. 0.40

Context	Area	Description	Dimensions
			D. 0.43
1398	C	Sub-circular U-shaped profile pit filled by a brown sandy clay deposit (1397)	L. 0.18 W. 0.18 D. 0.18
1400	C	Sub-circular U-shaped profile post-hole filled by a dark orange brown silty clay deposit (1399)	L. 0.83 W. 0.72 D. 0.30
1387/G22	C	Sub-circular U-shaped profile pit filled by a dark grey brown silty clay deposit (1386)	L. 0.59 W. 0.50 D. 0.09
1389/G22	C	Sub-circular U-shaped profile pit filled by a dark grey brown silty clay deposit (1388)	L. 0.54 W. 0.50 D. 0.06

4.5 Phase 2. Late Iron Age

The second phase is subdivided into three sub-phases; sub-phase 2a comprises the recutting of the 'Argham Dykes' (G18 and G24), and a ditch or gully (G15); sub-phase 2b, an enclosure ditch (G12 and G13) and several pits and post-holes; sub-phase 2c, the possible field system ditches (G12, 1318, 1319, 1369, 1371, G7, G8 and G9), and a number of pits and post-holes.

Sub-phase 2a

This phase saw the recutting of the Argham dykes and a curvilinear ditch.

The 'Argham Dykes' G18 and G24 (Figs 12 and 17; Plates 8, 9 and 10)

The ditch recuts G18 and G24 both had a V-shaped profile with a concave base. The ditches measured an average of 4.50m in width, and 1.60m in depth. The primary fill of recut G18 produced a substantial amount of fragmented Iron Age pottery and animal bones, while recut G24 produced a sherd of Iron Age pottery and some animal bone. The primary fill of the recut Argham Dyke ditches has been radiocarbon dated to 200 cal. BC to cal. AD 0 (SUERC 13326, Appendix 4) and may have been related to the settlement or land use of the area (see discussion).

Table 4.9. Ditches G18 and G24

Context	Group	Description	Dimensions
1119	18	Linear cut partially excavated in order to test the relationship between the east to west ditch 1122 and the north-east to south-west ditch 1402. Filled by two deposits: a dark reddish-brown silty clay (1117, same as 1170) and a brown silty clay (1118, same as 1171)	W. 1.30 D. 0.45
1402	18	South-west to north-east V-shaped profile ditch, recut of ditch 1177, and filled by five deposits: a mid-greyish brown silty sand (fifth fill, 1170), a mid-reddish brown sandy clay silt (fourth fill, 1171), a mid-yellow brown sandy silt clay (tertiary fill, 1172), a dark reddish-brown silty clay (secondary fill, 1173) and a dark greyish-brown silty clay (primary fill, 1174)	W. 5.22 D. 1.66
1403	24	South-west to north-east V-shaped profile ditch, recut of ditch 1200, and filled by four deposits; a mid-greyish brown silty sand (fourth fill, 1194), a mid-reddish-brown sandy clay silt (tertiary fill, 1195), a mid-yellow brown sandy silt clay (secondary fill, 1196) and a dark greyish-brown silty clay (primary fill, 1197)	W. 4.25 D. 1.60

Ditch G15 (Figs 12 and 16)

Located towards the north-west end of Area B, this curvilinear feature was orientated in a north-west to south-east direction. This ditch or gully had a U-shaped profile with a concave base measuring 15m in length, 1.28m in width and 0.70m in depth. No finds were recovered. This feature was possibly a drainage ditch, or a ditch using part of the eastern Argham Dyke recut as part of an enclosure.

Table 4.10. Ditch G15

Context	Group	Description	Dimensions
1179	15	East to west, U-shaped profile of a curvilinear ditch filled by a single mid-orange brown sandy silt deposit (1178)	W. 1.16 D. 0.66
1202	15	East to west, U-shaped profile of a curvilinear ditch filled by a single mid-orange brown sandy silt deposit (1201)	W. 1.40 D. 0.80

Sub-phase 2b

This phase consists of an enclosure ditch (G13), and a number of pits and post-holes.

Ditch G13 (Figs 12 and 16)

This feature was located in Area B, where it ran from the north-eastern baulk in a south-westerly direction for about 20m, before turning south-east where it ran for about 95m then ran into the south-eastern excavation limit. The ditch had a U-shaped profile and measured 2.28m in width and 0.72m in depth. A substantial amount of pottery, dating to the Late Iron Age, and a large amount of fragmented animal bones were recovered.

Table 4.11. Ditch G13

Context	Group	Description	Dimensions
1128	13	South-east to north-west ditch with a U-shaped profile, recut of ditch 1130, filled by a light brown silty clay deposit (1127)	W. 2.12 D. 0.37
1162	13	South-east to north-west ditch with a U-shaped profile, recut of ditch 1167, filled by a dark grey brown sandy silt deposit (1161)	W. 3.26 D. 0.70
1183	13	North-east to south-west ditch with a U-shaped profile, cuts ditch 1179, filled by a mid orange brown sandy silt deposit (1182)	W. 1.64 D. 1.00
1190	13	South-east to north-west ditch with a U-shaped profile, recut of ditch 1193, filled by three deposits; a mid-orange brown silty clay (tertiary fill, 1187), a dark orange brown silty clay (secondary fill, 1188) and a dark orange greyish-brown silty clay	W. 1.33 D. 0.76
1241	13	South-east to north-west ditch with a U-shaped profile, recut of ditch 1158, filled by a dark brown sandy silt deposit (1154)	W. 3.07 D. 0.81

Sub-phase 2b; Pits and Post-holes (Figs 7, 9, 10, 12, 18 and 19; Plate 1)

Fourteen sub-rectangular and sub-oval pits with U-shaped profiles were assigned to this phase. They measured between 0.52 and 2.20m long, 0.39 and 1.36m wide, and 0.12 and 0.85m deep. Five sub-circular post-holes were also assigned to this phase and measured between 0.25 and 0.59m long, 0.25 and 0.56m wide, and 0.05 and 0.55m deep. The majority were recorded in Area A. There appeared to be no structural relationship between these features, though their full extent was not revealed (see Discussion).

Table 4.12: Phase 2b Pits and Post-Holes

Context	Area	Description	Dimensions
1107	B	Large sub-circular U-shaped profile pit filled by a dark grey brown sandy silt deposit (1106)	L. 1.00 W. 0.91 D. 0.47
1221	A	Sub-rectangular U-shaped profile pit with three fills: a dark brown silty clay (1218), a set of packing and padding sandstones (1219) and a dark brown silty clay (1220)	L. 1.11 W. 0.90 D. 0.36
1225	A	Large sub-circular V-shaped profile post-hole filled by three deposits; a mid-grey brown sandy silt (1222) a light brown sandy silt (1223) and a dark reddish-brown clay (1224)	L. 0.59 W. 0.56 D. 0.55
1227	A	Sub-circular U-shaped profile pit filled by a light grey brown sandy silt deposit (1226)	L. 1.36 W. 0.52 D. 0.42
1235	A	Elliptical U-shaped profile pit filled by a dark orange brown silty clay deposit (1234)	L. 0.88 W. 0.61 D. 0.45
1240	A	Sub-rectangular U-shaped profile post-hole filled by a dark orange brown silty clay deposit (1238)	L. 0.25 W. 0.25 D. 0.17
1245	A	Sub-rectangular U-shaped profile pit filled by a dark	L. 1.00

Context	Area	Description	Dimensions
		brown silty clay deposit (1244)	W. 0.39 D. 0.43
1247	A	Large V-shaped profile pit filled by a light orange brown silty clay deposit (1246)	L. 1.20 W. 0.65 D. 0.58
1255	A	Large V-shaped profile post-hole filled by a light brown sandy silt deposit (1254)	L. 0.56 W. 0.50 D. 0.55
1265	A	Very shallow U-shaped profile post-hole filled by a very dark brown sandy silt (1264)	L. 0.43 W. 0.31 D. 0.05
1272	A	Sub-circular U-shaped profile pit filled by two deposits: a brown clay silt (1270) and a dark brown clay silt (1271)	L. 2.10 W. 1.20 D. 0.51
1275	A	Sub-rectangular U-shaped profile pit filled by a dark greyish-brown clay silt deposit (1274)	L. 1.48 W. 1.20 D. 0.63
1279	A	Sub-rectangular U-shaped profile pit filled by a dark olive brown silty clay deposit (1278)	L. 0.89 W. 0.80 D. 0.12
1281	A	Sub-rectangular U-shaped profile pit filled by a dark olive brown silty clay deposit (1280)	L. 1.56 W. 1.03 D. 0.14
1291	A	Sub-circular U-shaped profile pit filled by a dark grey brown clay silt deposit (1290)	L. 1.36 W. 1.20 D. 0.21
1307	C	Sub-circular U-shaped profile pit filled by a dark orange brown silty clay deposit (1306)	L. 0.60 W. 0.59 D. 0.29
1329	C	Sub-circular U-shaped profile pit filled by five deposits: a dark grey clay silt (1324), a mid-grey silty clay (1325), a mixed dark orange grey chalk clay (1326), a mixed dark brown clay chalk (1327) and a dark grey clay silt (1328)	L. 1.33 W. 1.00 D. 0.85
1351	C	Sub-circular U-shaped profile pit filled by three deposits: a mid-grey sandy silt (1348), an orange brown sandy silt (1349) and a black sandy silt (1350)	L. 1.34 W. 1.00 D. 0.63
1355	C	Sub-circular U-shaped profile post-hole filled by a dark grey brown sandy silt deposit (1354)	L. 0.42 W. 0.38 D. 0.18

Sub-phase 2c

This sub-phase represents the second phase of the putative enclosure ditch (G12, 1318, 1319, 1369 and 1371) and three pits. The southern part of the enclosure was defined by ditches G13 and G12, with ditch 1318 and 1369 forming the eastern limit and northern limits respectively.

Ditch G12 (Figs 12 and 16; Plate 7)

This ditch was a recut of ditch G13 in Area B, where it ran from the north-eastern baulk in a south-westerly direction for about 17m, before turning south-east where it ran for about 80m before turning north and running into the northern limit of excavation. This

ditch had a U-shaped profile with a concave base, was about 1.71m wide and 0.60m deep, and was truncated by two medieval quarry pits (phase 4). Animal bones and several fragments of Late Iron Age pottery were recovered. This ditch formed a recut of an earlier possible enclosure.

Table 4.13. Ditch G12

Context	Group	Description	Dimensions
1100	12	North-east to south-west ditch with a U-shaped profile filled by two deposits; a dark orange brown sandy silt (fill, 1098) and an orange brown sandy silt (primary fill, 1099)	W. 0.70 D. 0.45
1153	12	South-east to north-west ditch with a U-shaped profile filled by three deposits; a dark brown silty clay (tertiary fill, 1150), a mid-brown silty clay (fill 1151) and a dark brown silty sand (primary fill, 1152)	W. 2.55 D. 0.50
1181	12	A north-east to south-west ditch with a U-shaped profile filled by a single dark grey brown sandy silt fill (1180)	W. 2.94 D. 0.56
1186	12	South-east to north-west ditch with a V-shaped profile filled by two deposits; a very dark brown clay silt (fill, 1184) and a dark yellowish-brown silty clay (primary fill, 1185)	W. 2.38 D. 0.90

Ditch 1318 (Fig. 18)

This ditch had a V-shaped profile with a flat base, and was located in the south-east corner of Area C. It was exposed for a length of 6m, orientated north to south and was 1.75m wide and 0.88m deep. Filled by two deposits, the secondary fill appeared to be a brown clay mixed with small chalk fragments (1316), overlaying a dark brown silty clay deposit (1317). Late Iron Age pottery and a few fragments of animal bones were recovered from the secondary fill. This ditch is possibly the remains of the eastern arm of an enclosure running through Areas B and C.

Ditch 1369 (Figs 18 and 20)

Aligned in an east to west direction, and located at the north end of Area C, this ditch was exposed for a length of about 10m. Filled by a single brown clay silt deposit (1368) and mixed with small chalk fragments, this ditch had a V-shaped profile with a narrow base, measuring 1.70m in width and 0.48m in depth. Animal bones and a few fragments of Iron Age pottery were recovered. This ditch was possibly the remains of the northern arm of an enclosure passing through Areas B and C.

Ditch 1371 (Fig. 18)

Running north-east to south-west, this feature appeared to be contemporary with ditch 1369. The ditch had a V-shaped profile with a narrow base, filled by a single brown clay silt deposit (1370) identical to fill 1368. Measuring 1.35m wide and 0.43 deep, ditch 1371 was exposed for an approximate length of 7.50m. A few sherds of Romano-British pottery and some animal bones were recovered.

Ditch G7 (Figs 12, 13 and 14; Plate 5)

This ditch ran adjacent to ditch G8 on a north-west to south-east orientation for 30m, and was between 0.61 and 0.95m wide and 0.27 and 0.40m deep and it had a V-shaped profile with a narrow base. Fragments of Iron Age pottery and animal bones were recovered, and a button and loop fastener (see Section 5.10) was recovered by metal detector (SF 1, 1029). This ditch recut ditch G8 along part of its length. Although only partially revealed by the excavation area, ditches G7, G8 and G9 are likely to be part of a wider field system.

Table 4.14. Ditch G7

Context	Group	Description	Dimensions
1004	7	South-east to north-west boundary ditch with a U-shaped profile, recut of ditch 1006 and filled by a single dark olive brown clay silt deposit (1005)	W. 0.80 D. 0.35
1030	7	South-east to north-west boundary ditch with a V-shaped profile, recut of ditch 1026 and filled by a single mid-brown clay silt deposit (1029)	W. 0.95 D. 0.40
1053	7	North-east to south-west boundary ditch with a V-shaped profile, filled by a single mid-brown clay silt deposit (1054)	W. 0.80 D. 0.27
1060	7	South-east to north-west boundary ditch with a V-shaped profile, recut of ditch 1062, filled by a single mid-brown clay silt deposit (1054)	W. 0.61 D. 0.32

Ditch G8 (Figs 12, 13, 14 and 15)

Ditch G8 had a V-shaped profile with a flat base measuring about 1.30m in width and 0.50m in depth. Orientated north-west to south-east it turned southwards before reaching the east baulk of Area B. Several fragments of animal bones and Iron Age pottery were recovered from its fill. Together with other ditches (see also G7 and G9) this may have formed part of a wider field system.

Table 4.15. Ditch G8

Context	Group	Description	Dimensions
1006	8	North-west to south-east boundary ditch with a V-shaped profile, filled by a single orange brown clay silt deposit (1007)	W. 0.60 D. 0.38
1014	8	North-west to south-east boundary ditch with a V-shaped profile, filled by three deposits: a mid-reddish brown clay silt (tertiary fill, 1011), a mid-brown clay silt (secondary fill, 1012) and a dark grey clay silt (primary fill, 1013)	W. 1.25 D. 0.63
1026	8	North-west to south-east boundary ditch with a U-shaped profile, filled by a single dark olive brown clay silt deposit (1025)	W. 1.10 D. 0.50
1051	8	North-east to south-west to east west boundary ditch with a U-shaped profile, filled by a single dark olive brown clay silt deposit (1052)	W. 1.60 D. 0.50
1062	8	North-west to south-east boundary ditch with a U-shaped profile, filled by a single mid-reddish brown clay silt deposit (1061)	W. 1.30 D. 0.38
1078	8	North to south boundary ditch with a V-shaped profile, filled by a single mid-brown clay silt deposit (1077)	W. 1.50 D. 0.50

Ditch G9 (Figs 12 and 15)

This ditch was orientated north-east to south-west and exposed for a length of 12m with a 2m causeway. The ditch had a U-shaped profile and measured 0.60m in width and 0.17m in depth. A single sherd of Iron Age pottery was recovered. It was possibly part of a field system.

Table 4.16 Ditch G9

Context	Group	Description	Dimensions
1064	9	North-west to south-east ditch with a U-shaped profile, filled by a single dark brown clay silt deposit (1063)	W. 0.40 D. 0.27
1095	9	North-west to south-east ditch with a U-shaped profile, filled by a single dark brown clay silt deposit (1094)	W. 0.89 D. 0.15
1097	9	North-west to south-east ditch with a U-shaped profile, filled by a single dark brown clay silt deposit (1096)	W. 0.48 D. 0.08

Ditch 1319 (Fig. 18)

On an east to west alignment, ditch 1319 was exposed for a length of only 1.50m, before disappearing into the eastern baulk of Area C. This ditch had a V-shaped profile with a flat base, and was 1.00m wide and 0.50m in deep; it was filled by a single brown clay silt deposit (1404), from which no finds were recovered. This ditch may be part of a wider

field system.

Pits (Fig. 12, and Plate 1)

Three sub-rectangular and sub-oval pits with U-shaped profiles were found within Area B. They showed no structural relationship with each other.

Table 4.17. Phase 2c Pits

Context	Area	Description	Dimensions
1046	B	Large sub-circular U-shaped profile pit filled by a reddish-brown silty clay deposit (1045)	L. 1.60 W. 0.64 D. 0.37
1109	B	Sub-circular U-shaped profile pit filled by a light brown grey sandy silt deposit (1108)	L. 1.00 W. 0.35 D. 0.40
1112	B	Large sub-circular U-shaped profile pit filled by an orange brown sandy silt deposit (1111)	L. 1.11 W. 1.00 D. 0.42

4.6 Phase 3. Romano-British

Phase 3 was divided into two sub-phases comprising two sets of field systems and a number of pits and post-holes.

Phase 3a

This phase consisted of field ditches G1, G3, G11, G26 and G27, a possible post-hole and eight pits.

Ditch G1 (Figs 7, 8 and 9)

This ditch was exposed for a length of 40m, had a U-shaped profile and was between 0.60 and 1.45m wide, and 0.16 and 0.62m deep. It ran south-west to north-east for about 20m before turning north-west where it was truncated by ditch G4. Fragments of Romano-British pottery were recovered from the primary fill (1148). This ditch formed part of the north-east corner of an enclosed field, where it was then later truncated by ditch G4.

Table 4.18. Ditch G1

Context	Group	Description	Dimensions
1145	1	North-east to south-west ditch with a U-shaped profile, filled by a single dark orange brown sandy silt deposit (1144)	W. 0.60 D. 0.16
1149	1	North-east to south-west ditch with a U-shaped profile, filled by three deposits: a mid-red brown sandy silt (tertiary fill, 1146), a brown clay (secondary fill, 1147) and a dark grey brown clay silty sand (primary fill, 1148)	W. 1.45 D. 0.62
1233	1	South-east to north-west ditch with a U-shaped profile, filled by a single mid-grey brown clay silty sand deposit (1232)	W. 0.60 D. 0.20
1249	1	South-east to north-west ditch with a U-shaped profile, filled by a single mixed dark brown sandy silt deposit (1248)	W. 1.10 D. 0.35

Ditch G3 (Figs 7 and 8)

Orientated south-east to north-west, 4m to the south and running parallel to ditches G1 and G4, this ditch was exposed for about 20m before terminating 4m west of ditch G1. It had a U-shaped profile and a fragment of Romano-British pottery was recovered from its fill (1210). This ditch may have formed a dog-legged entrance with ditch G1.

Table 4.19. Ditch G3

Context	Group	Description	Dimensions
1211	3	West butt end of a south-east to north-west ditch with a U-shaped profile, filled by a single light orange brown silty clay deposit (1210)	W. 0.40 D. 0.11
1213	3	South-east to north-west ditch with a U-shaped profile, filled by a single light orange brown silty clay deposit (1212)	W. 0.72 D. 0.25

Ditch G6 (Figs 12, 13, 14 and 15; Plate 2)

This ditch ran north-west to south-east for a distance of about 70m before turning south-west for about 7m. This ditch had a U-shaped profile measuring 1.45m in width and 0.61m in depth, and followed the same alignment as ditch G8. A substantial quantity of animal bones and a large amount of Iron Age and Romano-British pottery was recovered from both the primary and secondary fills of the ditch. This ditch appears to be a recutting of an earlier field system ditch, and may be evidence of continuity into the Romano-British period (see Discussion).

Table 4.20. Ditch G6

Context	Group	Description	Dimensions
1010	6	South-east to north-west ditch with a U-shaped profile, filled by two deposits; a dark reddish-brown silty clay (secondary fill,1008) and a dark brown silty clay (primary fill, 1009)	W. 0.75 D. 0.23
1019	6	South-east to north-west ditch with a U-shaped profile, filled by two deposits; a brown clay silt (secondary fill, 1024) and a dark brown clay silt (primary fill, 1023)	W. 1.80 D. 0.71
1022	6	South-west north-east ditch with a V-shaped profile, filled by two deposits; a mid-brown sandy clay (secondary fill,1020) and a mixed mid-brown sandy clay (primary fill, 1021)	W. 1.70 D. 0.87
1028	6	South-east to north-west ditch with a U-shaped profile, filled by a single mid-olive brown clay silt deposit (1027)	W. 1.81 D. 0.60
1042	6	North-west to south-east ditch with a U-shaped profile, filled by a single dark reddish brown silty clay deposit (1041)	W. 0.90 D. 0.42
1055	6	South-east to north-west ditch with a U-shaped profile, filled by a single mid-olive brown clay silt deposit (1056)	W. 0.60 D. 0.64
1058	6	North-west-south-east ditch with a U-shaped profile, filled by a single dark reddish-brown silty clay deposit (1057)	L. 0.80 W. 1.20 D. 0.37
1076	6	North to south ditch with a V-shaped profile, filled by a single mid-brown sandy clay deposit (1075)	W. 1.45 D. 0.50

Ditch G11 (Fig.12)

Located on the eastern side of Area B, this ditch is L-shaped in plan but was only revealed for a distance of 16m. This ditch ran on a north to south direction for a distance of about 8m, truncating ditches G13 and G14, before turning east beyond the excavation limits. Iron Age and Romano-British pottery and a few fragments of animal bone were recovered from its fills. Ditch G11 could be part of a wider field system.

Table 4.21. Ditch G11

Context	Group	Description	Dimensions
1105	11	North to south ditch with a U-shaped profile, filled by two deposits: a light orange brown sandy silt (secondary fill, 1103) and a brown grey sandy silt (primary fill, 1104)	W. 1.05 D. 0.50
1126	11	North-west to south-east ditch with a U-shaped profile, filled by a single dark olive brown silty clay deposit (1125)	W. 1.00 D. 0.45

Ditch G26 (Figs 18 and 19b)

Ditch G26 was orientated north-east to south-west, ran through the centre of Area C and was exposed for a total length of 9.30m. This ditch appears to truncate the entrance of an earlier ring gully. No finds were recovered from its fill. This ditch (along with ditch G27)

could be part of a wider Romano-British field system.

Table 4.22 Ditch G26

Context	Group	Description	Dimensions
1323	26	North-east to south-west ditch with a U-shaped profile, filled by a single dark brown silt clay deposit (1322)	W. 0.68 D. 0.20
1341	26	North-east to south-west ditch with a U-shaped profile, filled by a single dark brown silt clay deposit (1340)	W. 1.00 D. 0.45

Ditch G27 (Figs 18 and 19)

Running through the centre of Area C on a northeast to southwest orientation, this ditch was exposed for a total length of 9.40m, was 0.98m wide and 0.28m deep. A single fragment of Romano-British pottery was recovered. This ditch (along with ditch G26) could be part of a wider Romano-British field system recorded in other areas. The 1.70m causeway between the ditches G26 and G27 could be an entrance.

Table 4.23. Ditch G27

Context	Group	Description	Dimensions
1313	27	North-east to south-west ditch with a U-shaped profile, filled by a single dark brown silty clay deposits (1312)	W. 0.92 D. 0.29
1321	27	North-east to south-west ditch with a U-shaped profile, filled by a single dark brown silty clay deposits (1320)	W. 0.74 D. 0.16

Pits (Figs 7, 9, 10, 11, 12 and 13)

Eight pits assigned to this phase were enclosed by ditches G4 and G5. Two other pits, one found against the western edge of Area A, and the second found truncating ditch G7 were also recorded. All these pits had U-shaped profiles with flat bases and measured between 0.67 and 2.72m in length, 0.54 and 1.48m in width, and 0.16 and 0.86m in depth. All these pits contained fragmented animal bones and sherds of Iron Age and Romano-British pottery, three of them also contained degraded Romano-British metalwork, including a fragment of copper-alloy sheet (SF. 7, 1033), a nail shank (SF. 6, 1290) and a joiner's dog (SF. 10, 1216). One pit contained a fragment of quernstone (1282). During the excavation of these pits and post-holes no direct evidence was recovered which might determine their function (though see Discussion).

Table 4.24. Phase 3a Pits

Context	Area	Description	Dimensions
1002	B	Large sub-circular U-shaped profile pit filled by a dark	L. 1.48

Context	Area	Description	Dimensions
		brown sandy clay silt deposit (1003)	W. 0.67 D. 0.25
1034	A	Shallow elliptical U-shaped profile pit filled by a dark brown silty clay deposit (1033)	L. 0.90 W. 0.54 D. 0.30
1217	A	Sub-rectangular U-shaped profile pit filled by a dark orange brown sandy silt clay deposit (1216)	L. 0.90 W. 0.81 D. 0.26
1229	A	North to south orientated oval U-shaped profile pit filled by a dark greyish-brown clay silt deposit (1228)	L. 1.81 W. 1.14 D. 0.58
1269	A	Sub-rectangular U-shaped profile pit filled by a mixed dark brown silty clay deposit (1268)	L. 1.42 W. 0.84 D. 0.40
1283	A	Large sub-circular U-shaped profile pit filled by a single dark reddish-brown silty clay deposit (1282)	L. 2.72 W. 1.05 D. 0.86
1285	A	Large sub-circular U-shaped profile pit with irregular base filled by a single mixed dark orange grey brown sandy silt deposit (1284)	L. 2.49 W. 1.20 D. 0.86
1289	A	Large oval U-shaped profile pit filled by a single dark olive brown silty clay deposit (1288)	L. 1.00 W. 0.80 D. 0.16
1291	A	Circular pit (50% excavated) filled by dark grey brown clay silt (1290)	L. 1.36 W. 1.20 D. 0.21
1297	A	Sub-circular U-shaped profile pit filled by a single dark reddish-brown silty clay deposit (1296)	L. 1.11 W. 0.90 D. 0.36

Phase 3b

This phase consists of field systems ditches G4, G5 and 1311.

Ditch G4 (Figs 7, 8 and 9)

Revealed for a length of 46m, ditch G4 crossed Area A on a south-east to north-west orientation. A second segment of this ditch running in a north-east to south-west direction was also revealed for the length of 8m. A substantial quantity of animal bones and a large amount of Iron Age and Romano-British pottery were recovered from the secondary fill (1141). Bisecting Area A, ditch G4 appears to be part of a wider Romano-British field system (see also ditch G5).

Table 4.25. Ditch G4

Context	Group	Description	Dimensions
1140	4	South-east to north-west ditch with a U-shaped profile, filled by two deposits: a single light brown silty clay (secondary fill, 1141) and a dark brown silty clay (primary fill, 1139)	W. 0.98 D. 0.45
1160	4	South-east to north-west ditch with a U-shaped profile, filled by a single mid-brown grey clay silty sand deposit	W. 0.69 D. 0.32

		(1159)	
1231	4	South-east to north-west ditch with a U-shaped profile, filled by a single mid-reddish brown clay silty sand deposit (1230)	W. 0.70 D. 0.46
1251	4	North-north-east to south-south-west ditch with a U-shaped profile, filled by a single dark brown sandy silt deposit (1250)	W. 0.77 D. 0.40
1253	4	North-north-east to south-south-west ditch with a U-shaped profile, filled by a single dark brown sandy silt deposit (1252)	W. 1.10 D. 0.35

Ditch G5 (Figs 7, 8 and 9)

Orientated north-east to south-west, this ditch was exposed for a length of 10m, was 0.63m wide and 0.30m deep and had a U-shaped profile. This ditch was radiocarbon dated to 50 – 220 cal. AD (SUERC 13325, Appendix 4), a date supported by the Romano-British pottery also recovered from the fills of this ditch. This ditch may be a continuation of ditch G4, allowing a causeway of about 4m between them.

Table 4.26. Ditch G5

Context	Group	Description	Dimensions
1237	5	North-north-east to south-south-west ditch with a V-shaped profile, filled by a single dark orange brown silty clay deposit (1236)	W. 0.75 D. 0.23
1243	5	North-north-east to south-south-west ditch with a V-shaped profile, filled by a single dark brown silty clay deposit (1242)	W. 0.56 D. 0.40
1257	5	North-north-east to south-south-west ditch with a V-shaped profile, filled by a single mid-orange brown silty clay deposit (1256)	W. 1.10 D. 0.35

Ditch 1299 (Fig. 18)

Aligned in a north-east to south-west direction, and located at the central part of Area C, this ditch was exposed for a length of about 5m. Filled by a single dark brown silty clay deposit with small chalk fragments (1298), this ditch had a U-shaped profile with a concaved base, measuring 0.80m in width and 0.17m in depth. A fragment of Romano-British pottery was recovered from the fill. This ditch was possibly part of a wider Romano-British field system.

4.7 Phase 4: Medieval and Later

This phase comprised three large quarry pits in Area B (1083, 1087, and 1093), and several furrows (G20, and G21) located in Area A.

Quarry Pit, 1083 (Fig. 12; Plate 11)

Pit 1083, was a sub-square shape in plan and a had a U-shaped profile with a flat base, measuring about 3m in length, 2.50m in width and 0.90m in depth. Four fragments of medieval pottery were recovered during the excavation of an upper fill (1079). No other datable artefacts were found within other fills.

Quarry Pit 1087 (Figs. 12 and 17)

Only partially exposed for a length of 7m, pit 1087 was a sub-oval shape in plan, had vertical sides and a flat base. It was situated at the north-east end of Area B, and measured 8.40m in width and 1.40m in depth. No finds were recovered, though this feature probably dates to a broadly similar period as the medieval quarry pit also recorded in this area (1083).

Quarry Pit 1093 (Figs 12; 17, Plate 12)

Pit 1093 lay about 7m west of pit 1083, and was sub-oval in plan with vertical sides and a flat base. It measured 12.50m in length, 6.40m in width and about 1.50m in depth. Fragments of animal bone and medieval pot were recovered from the upper fill (1088); it is likely that it dates broadly to the same period as 1083 and 1087.

Furrows G20 and G21

A number of furrows orientated north-west to south-east (G20) and north-east to south-west (G21) were recorded in Area C. They measured between 0.35 and 1.39 m wide and 0.09 and 0.29m deep. A few sherds of Late Iron Age pottery were found within the furrows, however, considering the shallow depth of the topsoil and the density of the Iron Age features buried beneath, these finds can only be considered as redeposited material due to plough activity (see Discussion).

Pit 5002 (Fig. 4; Plates 23 and 24)

Located alongside the north edge of Area F2, pit 5002 appeared to have a circular shape in plan, with vertical edges and flat base measuring 0.50m in diameter and about 0.50m in depth. The remains of a large medieval vessel were recovered from the pit. The excavation of this pit and the removal of the vessel were undertaken during the soil

stripping and watching brief phase of the project by an amateur without professional archaeological supervision. As a result, most of the soil it had contained was lost, however, pottery impressions in the clay of the pit seemed to indicate the pit had been dug in order to deposit the vessel.

4.8 Modern Remains

World War Two Pillboxes (Figs 5 and 21; Plates 13, 14, 15 and 16)

Two pillboxes, both orientated north-west to south-east were recorded at the northern end of the proposed new A165 Bypass. They have been identified as Type FW3/26 or the 'Stent' after the company that produced the prefabricated components (Wikipedia 2007). These pillboxes date to World War Two but with only 192 surviving examples in the country (ADS 2007), they are rare (see Discussion). Each pillbox was square in plan with each wall 3m long, 2m high and 0.50m thick. There was an embrasure in all four walls 0.70m wide and 0.25m high, including next to the entrance, which was in the southern wall in both pillboxes and which measured 0.50m in width and 2.00m in height. Both pillboxes were almost entirely intact and in good condition at the time of the recording.

4.9 Undated remains

Ditch G2 (Figs 7 and 8)

This ditch terminated near ditch G1 and was orientated in a south-east to north-west direction. It had a U-shaped profile and was revealed for a length of 17m, measuring an average 0.63m in width and 0.16m in depth. It is possible that ditch G2 could have been part of one of the field system phases; it appears to be avoided by ditch G1 or respects this ditch, however, ditch G2 has not been dated.

Table 4.32: Ditch G2

Context	Group	Description	Dimensions
1138	2	South-east to north-west ditch with a U-shaped profile, filled by a single dark orange brown sandy silt deposit (1137)	W. 0.75 D. 0.20
1143	2	South-east to north-west ditch with a U-shaped profile, filled by a single dark orange brown sandy silt deposit (1142)	W. 0.40 D. 0.18
1209	2	South-east to north-west ditch with a U-shaped profile, filled by a single mid-dark brown silty clay deposit (1208)	W. 0.73 D. 0.10

Ring ditch G16 (Figs 12 and 15)

Fully excavated for a length of 10m, ditch G16 had a shallow U-shaped profile with a concave base, measuring 1.50m wide and 0.27m deep. As only a short length of the ditch was revealed during the course of the excavation, and in the total absence of datable material, the full nature and date of this feature are unknown (though see Discussion).

Table 4.33. Ditch G16

Context	Group	Description	Dimensions
1072	16	Shallow U-shaped profile of a curvilinear ditch filled by a single mid-brown grey silt clay deposit (1071)	W. 1.84 D. 0.29
1074	16	Shallow U-shaped profile of a curvilinear ditch filled by a single mid brown grey silt clay deposit (1073)	W. 1.84 D. 0.29

Pit 1359 (Fig. 18)

A north to south orientated sub-rectangular pit located inside the possible entrance of a ring ditch (G23). The ditch had a U-shaped profile with a concave base, measuring 0.95m in width and 0.18m in depth and was filled by a single mid-orange brown silty clay deposit (1358). This feature may have been a structural element of a possible roundhouse (see ditch G23).

Watching Brief Area F4 Remains (Fig. 6)

The monitoring of the topsoil stripping within the limits of corridor-segment F4 revealed the presence of one large sub-circular and two linear features. It was impossible during the course of the watching brief to fully investigate these features, however, a description of their fills and their dimensions were taken and their locations recorded. No finds were recovered from any of these remains.

Table 4.34. Ditches 5004, 5006 and pit 5005

Context	Area	Description	Dimensions
5004	F4	A north-east to south-west aligned linear feature filled by a dark brown silty clay deposit (not excavated)	L. 12.0 W. 0.90 D. –N A
5005	F4	Large sub-circular feature (quarry pit?) filled by a dark brown silty clay deposit (not excavated)	L. 7.70 W. 6.10 D. –N A
5006	F4	An east to west aligned linear feature filled by a dark brown silty clay deposit (nor excavated)	L. 80.0 W. 1.70 D. –N A

Pits and Post-holes (Fig. 12)

Six circular, or sub-circular pits with U-shaped profiles were recorded along with fifteen sub-circular post-holes, all are undated. These pits and post-holes were recorded across the whole site, though the majority were concentrated in Areas B and C. They had no evident structural connection with each other or with any other remains.

Table 4.35. Undated Pits and Post-holes

Context	Area	Description	Dimensions
1032	B	Sub-circular U-shaped profile pit filled by a dark orange brown silty clay deposit (1031)	L. 0.96 W. 0.52 D. 0.17
1036	B	Sub-circular U-shaped profile pit filled by an orange brown silty clay deposit (1035)	L. 0.50 W. 0.40 D. 0.09
1038	B	Sub-circular U-shaped profile pit filled by a dark orange brown silty clay deposit (1037	L. 0.86 W. 0.45 D. 0.17
1040	B	Sub-circular U-shaped profile pit filled by a reddish-brown silty clay deposit (1039)	L. 0.72 W. 0.25 D. 0.11
1048	B	Large sub-circular U-shaped profile pit filled by a single reddish-brown silty clay deposit (1049)	L. 1.55 W. 0.60 D. 0.20
1050	B	Sub-circular U-shaped profile pit filled by a reddish-brown silty clay deposit (1049)	L. 0.52 W. 0.36 D. 0.23
1066	B	Sub-circular U-shaped profile pit filled by a brown grey sandy silt deposit (1065)	L. 0.84 W. 0.46 D. 0.21
1068	B	Sub-circular U-shaped profile post-hole filled by a light grey clay silt deposit (1067)	L. 0.25 W. 0.23 D. 0.09
1070	B	Sub-circular V-shaped profile post-hole filled by a light grey clay silt deposit (1069)	L. 0.30 W. 0.22 D. 0.33
1215	A	Sub-circular U-shaped profile post-hole filled by a light orange brown silty clay deposit (1214)	L. 0.41 W. 0.40 D. 0.16
1263	A	Circular U-shaped profile pit filled by a dark orange brown silty clay deposit (1262)	L. 1.10 W. 1.02 D. 0.17
1267	A	Sub-circular U-shaped profile post-hole filled by a dark orange brown silty sand deposit (1266)	L. 0.60 W. 0.56 D. 0.14
1277	A	Sub-circular U-shaped profile post-hole filled by a dark orange brown silty clay deposit (1276)	Dia. 0.40 D. 0.14
1293	A	Sub-circular U-shaped profile post-hole filled by a dark brown clay silt deposit (1292)	L. 0.90 W. 0.65 D. 0.15
1303	C	Sub-circular U-shaped profile post-hole filled by a dark greyish-brown silty clay deposit (1302)	L. 0.60 W. 0.58 D. 0.09
1333	C	Sub-circular U-shaped profile post-hole filled by a dark orange brown silty clay deposit (1332)	Dia. 0.35 D. 0.24
1339	C	Sub-circular U-shaped profile post-hole filled by a dark brown silty clay deposit (1338)	L. 0.56 W. 0.50

Context	Area	Description	Dimensions
			D. 0.23
1343	C	Sub-circular U-shaped profile post-hole filled by a dark brown silty clay deposit (1342)	L. 0.46 W. 0.45 D. 0.14
1345	C	Sub-circular U-shaped profile post-hole filled by a mid-orange brown sandy silt deposit (1344)	Dia. 0.45 D. 0.32
1347	C	Sub-circular V'-shaped profile post-hole filled by a mid-orange grey sandy silt deposit (1346)	L. 0.40 W. 0.20 D. 0.18
1381	C	Sub-circular U-shaped profile post-hole filled by a dark orange brown silty clay deposit (1380)	L. 1.60 W. 0.60 D. 0.39
1383	C	Sub-circular U-shaped profile post-hole filled by a dark brown silty clay deposit (1382)	Dia. 0.30 D. 0.12

5 Finds

All finds illustrations referenced in the text appear in Part 2, Appendix 3.

5.1 Neolithic and Bronze Age Pottery

by Carol Allen

Quantification

A total of nine sherds of earlier prehistoric pottery were recovered. Eight sherds weighing 43g were found in Area C and one sherd weighing 14g in Area A, as detailed in Table 5.1.1 below. Parts of two vessels are represented and both are illustrated (Fig. 22).

Table 5.1.1: Neolithic and Bronze Age Pottery

Area - Context	Sherds (No.)	Weight (g)	Abrasion Level	Fabric type
C – (1366)	8 body	43	very abraded – all surfaces worn	LICV/ROSM
A – (1282)	1 body	14	moderately abraded – 25-50% of original surfaces worn	LIMC/QURF
Total	**9**	**57**		

Methodology

The pottery has been recorded according to the guidelines of the Prehistoric Ceramics Research Group (PCRG 1997). In addition, this report conforms to the standards and guidance of the IFA (2001). The fabric type and the abrasion level of the sherds are given and the part of the pot remaining is recorded.

Fabrics

The sherds were examined by use of a x2 binocular microscope in order to allow the fabric types to be summarised. Two fabric types were seen both showing voids, angular, rounded and elongated. Fabric 1 (LIMC/QURF) was seen in the sherd from context 1282, Area A (LI=limestone or chalk, QU=quartz). This contained a moderate quantity (M=10-19%) of poorly sorted and sub-rounded and angular voids of low sphericity and coarse size (C=1.00–3.00mm). There is also a rare amount (R=under 3%) of well sorted and rounded quartz of high sphericity of fine size (F=<0.25mm).

Fabric 2 (LICV/ROSM) was seen in sherds from context 1366, Area C (RO=rock identified without thin section). This included a common quantity (C=20-30%) of similar voids of very coarse size (V>3.00mm) and a sparse amount (S=3-9%) of medium (M=0.25-1.00mm) to fine rounded pieces of black rock. Fabrics of vessels are known to change through time even at the same location, as traditions varied with pottery type (Allen and Hopkins 2000, fig. 8).

Other Neolithic and Bronze Age pottery sherds from a nearby site at Reighton showed similar fabric types. Analysis by thin section showed that these were likely to have been made from local boulder clay which contained a mixture of rocks derived from the chalk and erratics of Scottish and Scandinavian origin (Kent 1980, 120). The voids may have held chalk or calcite (Vince 2006) and the fine black shiny pieces are likely to be basic igneous rock.

Types

Middle Neolithic Peterborough Ware

The single sherd from context 1282 (Area A) appears to be a body sherd of a Peterborough or impressed ware vessel (Fig. 22; No. 1). The sherd has a vague abraded impression over the outer surface. This sherd may be from a vessel of Mortlake style which often had impressions over the body made with a stick or small bone. There is no rim or body form to enable a closer identification to be made.

Similar pottery has been found recently at The Willows site at Reighton (Allen 2006) where forms were seen to be similar to Peterborough ware seen elsewhere in Eastern Yorkshire, for example at Carnaby Top (Manby 1975;1988; Manby *et al.* 2003, 55). Dating of material associated with middle Neolithic Peterborough or impressed wares confirms that all types were in use by 3000 BC (Gibson and Kinnes 1997). Dates for Mortlake types span 3600 to 2300 BC (Gibson 2002, 80), although this is based on a few dates and more precise dating would assist with better knowledge of this type of pottery.

Early Bronze Age Collared Urn

The sherds from context 1366 are very abraded and only one retains some of the original surface. The form and colour suggest that these came from an early Bronze Age Collared

Urn, some from the collar (Fig. 22, No. 2). It is not possible to see whether this was originally decorated.

Pottery of this type is found all though the region (Longworth 1984) and sherds from an undecorated collar of a Collared Urn have recently been found at Ferrybridge in Yorkshire (Allen 2004). At Gnipe Howe in Yorkshire parts of a similar Collared Urn were found close to a pit in a disturbed barrow. Associated charcoal gave a radiocarbon date of 1880-1660 cal BC (3440+90 BP, HAR-4933: Brewster and Finney 1995, 66, fig. 31, no. 3). Collared Urns are thought to have emerged about 2000 BC and to have been mainly in use during the period 1800 to 1700 BC (Needham 1996, 131-3).

Context

Peterborough Ware

A sherd from context 1282 was found in a large pit (1283) in Area A (Phase 3a). Other finds in the pit included a quernstone, animal bone, and a large number of Iron Age and Romano-British sherds at all levels. This moderately abraded sherd is therefore likely to be material which has been unearthed and redeposited in this pit during later ploughing. It does however indicate that there was activity in this area in the middle Neolithic period. Often such pottery was placed in pits (Thomas 1999, 64-5) and this sherd is likely to have been disturbed from such a pit which originally lay near to this location.

Collared Urn

Sherds from 1366 were found in the cut of a curvilinear ditch in Area C (1367, Phase 1). This is considered to be a ring gully of an Iron Age roundhouse. Animal bone and Iron Age pottery were also found in this ditch. The Collared Urn sherds are very abraded and are likely to have been disturbed and swept into this gully during later agricultural activity. This suggests that there may have been a barrow or pit of the Early Bronze Age period nearby which had been disturbed. The pot is most likely to have been placed originally with a cremation burial.

5.2 Iron Age and Romano-British Handmade Pottery

by Chris Cumberpatch

Introduction

The assemblage consists of a total of 2236 sherds of pottery weighing 24,819 grams representing a maximum of 2144 vessels (Table 5.2.1); including a small number of sherds of possible earlier prehistoric date (see Section 5.1). The full data are summarised in Appendix 2. The preparation of this report followed an assessment report compiled by P. Didsbury (2006) and as far as possible has conformed to the principles established in that report, together with the principles laid down by the Prehistoric Ceramics Research Group (PCRG 1997).

Table 5.2.1: Quantification of Handmade Pottery

Fabric group	Number	Weight	Estimated (maximum) number of vessels
H Type	12	26	12
H1	1,381	15,433	1,339
H1 type	33	335	32
H2	564	6618	544
H2 type	61	664	39
H4	183	1718	176
H4 type	1	19	1
Other	1	6	1
Total	**2,236**	**24,819**	**2,144**

Fabric groups

Following earlier work on the later prehistoric pottery of eastern Yorkshire by Rigby (1980; 1986), Didsbury proposed that two principle fabric groups exist within the assemblage with an additional sub-category covering material characterised by a highly vesicular character. It should be noted that these are fabric *groups* rather than fabric *types* in that there is a significant degree of variation between vessels in terms of the density and size of the inclusions, even while the types of inclusions do seem to be mutually exclusive and to represent a real difference within the pottery assemblage as a whole.

Fabric Group H1

Didsbury described fabric Group H1 in the following terms:

> 'The fabric contains ill-sorted crushed calcite or calcite and chalk, usually in moderate or abundant amounts. Size of inclusions varies from <1mm to >5mm.'

Closer examination of the sherds indicates that the density of the inclusions maybe described as 'very common' to 'abundant' (30% - 40%) and moderately to poorly sorted (PCRG 1997, appendices 3 and 4). Angularity is a strong feature of the individual calcite grains (Section 5.6 and PCRG 1997), particularly in the case of the larger grains. Smaller grains may be sub-angular to angular in shape, but all grains may be characterised as of low sphericity. Grain sizes vary considerably both within and between sherds with an upper limit of 2mm being exceeded relatively rarely (although occasional grains of 3mm, 4mm and even 5mm were noted). Below this the range of grain sizes was wide and varied considerably between sherds. Although calcite was the commonest and most prominent inclusion, smaller quantities of finer quartz grains were also noted. These were generally less than 1mm in size and were rare to sparse (2% - 3%) in terms of their density. Larger grains were present but were rare (1% - 2%).

While the present author concurs with Didsbury's division of the assemblage into two principal fabric groups (plus the vesicular H4 group), closer examination of the material has allowed the distinction of two possible sub-groups within the wider H1 group. The first of these may be described as having a coarse, dull orange to grey coloured body containing larger coarser grit, often leached to give vesicular surfaces or, in some cases, an entirely vesicular character. This sub-type overlaps with H4 described below. This group is the commoner of the two and examples may be found throughout the assemblage.

The second sub-type has a much more finely textured body, generally black throughout and containing fine and abundant angular grit, still mainly calcite and sometimes leached and vesicular but often not, giving a distinctive black finish with prominent white grit visible in cross-section and often with a pimply textured surface. Examples may be seen in context 1148.

This description of these two sub-types should not be taken as indicating any significant degree of regularity or homogeneity within the assemblage, rather they should be considered as distinctive points on a continuum within which the density, size and, to a lesser extent, shape of the inclusions varies considerably, hence the use of the term fabric groups rather than fabric types in the traditional sense.

Fabric Group H4

Fabric Group H4 covers those vessels and sherds which have suffered significant leaching, to the extent that they appear partially or completely vesicular in nature. There can be little doubt that these represent H1 fabrics which, for unknown reasons, have been exposed to a greater concentration of soil acids than have other sherds. A small group of nine sherds from context 1366 (context Group 23) were identified by Didsbury as having contained organic temper and were assigned the code H4OT. This material is discussed elsewhere (Section 5.1).

Fabric groups H1 and H4 would seem to be the counterpart of Rigby's Fabric 2 (1980) and possibly her 'Vesicular wares' (1986), the latter equating to Fabric H4 and resulting from similar exposure to acidic ground water. The condition of the sherds described by Rigby in the case of the Heslerton pottery (1986, 145) was somewhat worse than that encountered at Reighton as over 95% of the Heslerton material consisted of vesicular wares, while the proportion at Reighton was a little over 8% (Table 5.2.1).

Excavations at The Willows, Reighton produced a small assemblage of later Iron Age and Roman pottery in which vesicular wares constituted some 73% of the total by sherd number (Darling 2006). No examples of non-vesicular calcite gritted fabrics were noted, suggesting that the material discussed in the present report is in relatively good condition and has suffered less from the actions of acidic ground water when compared to the pottery from other sites.

The H1/H4 material would also seem to be related to Monaghan's calcite-gritted ware (fabric Group K) as defined at York (1997, 907-11) and to Knapton ware (Perrin 1990, fig. 126, nos 1425-7) which was in use throughout the Roman period and increased in importance in York after *c*. 280AD.

Fabric Group H2

Didsbury has described fabric Group H2 in the following terms:

> 'The fabric contains moderate to abundant angular non-soluble stone temper. This is predominantly quartz, sometimes derived from sandstones, but crushed igneous rock fragments also occur. Coarseness grades are very variable, the finer examples being best described as 'sandy' or 'coarse sandy', the medium

> grades as 'gritty', and the coarser having large angular inclusions in a similar size range to those of the calcareously tempered wares.'

Closer examination of H2 sherds suggested that the densities of between 25% and 30% (common to very common; PCRG 1997, appendix 3) were normal with quartz grains within the 1mm – 2mm size range. Occasional larger quartz grains were present in many, if not the majority of sherds and grains of up to 6mm were present in rare cases. Biotite was also relatively common and although particularly prominent in the more coarsely tempered sherds, was also present in the finer, sandy textured sherds. As with the H1 sherds, the sorting of the inclusions was moderate to poor (PCRG 1997, appendix 4) and the grains tended to be angular to sub-angular in shape. The biotite flakes were an exception to this by virtue of their platy, laminated character.

Didsbury has linked this fabric group with Rigby's Erratic Tempered wares (ETW), as defined at Heslerton (Rigby 1986, 145). As elsewhere, this fabric group forms the smaller component of the entire Reighton assemblage with the H1/H4 group predominating. Other aspects of the relationship between the two fabrics are discussed in greater detail below. The H2/ETW wares seem generally to form the smaller component in assemblages excavated to date. At the nearby site of The Willows, only one sherd was identified (from a ploughsoil context; Darling 2006), while at Heslerton ETW and another minor fabric (flint tempered ware) together constituted less than 5% of the total. That the H2 Group forms a more substantial component of the present assemblage is of interest, though whether it is the result of chance factors or relates to a real difference (chronological, social or functional) between the sites is at present unclear.

As Didsbury noted, variability within the fabric groups is a characteristic of both the H1/H4 and H2 groups and this pertains to both fabric and form. Vessel form will be discussed further below, but some aspects of the variability in fabric are worthy of comment.

Context 1033 produced a range of H2 types, including a number of sherds (described as 'H2 type' in Appendix 2) which contained hyper-abundant (40 – 50%) quartz grit. These exceptionally coarse sherds also contained a significant amount of highly visible biotite with the large gold-coloured flakes easily visible with the naked eye on the surfaces of the sherd. Another group of H2 types from this context also included both quartz and biotite and had a distinctive friable character. Prominent large biotite flakes were also

noted elsewhere, including in sherds from a large vessel in context 1282. This may well be considered to be a distinctive variant within the larger H2 Group. Other sherds in context 1033 were finer in texture and somewhat harder and more robust in character, but also contained abundant quartz grit although not the prominent biotite.

Examples of the finer H2 wares were noted in contexts 1021 and 1236. Although these were characterised as containing much finer quartz grains (generally up to 1mm), larger grains were also present, albeit in much smaller quantities than in the coarser sherds. It is the lower density of such grains and the presence of the finer grains in significant quantities which gives these sherds their sandy character, distinguishing them from the 'gritty' textured coarser vessels.

Contexts 1003 and 1005 each produced a very fine H2 sherd with similar characteristics; very fine in texture with smooth surfaces and buff internal margins. The sherds did not join, but given the variability seen elsewhere, the similarity between them is striking. Smoothed surfaces, at times amounting to a burnished finish were noted regularly on sherds falling into the finer H2 groups, although whether this was a deliberate attempt to copy Romano-British Black Burnished wares is unclear.

Evans has suggested that there may be a geographical factor in the distribution of wares with different types of tempering and has noted in particular the distinction between the predominant use of calcite within east Yorkshire and dolerite in the Tees Valley (1995, 50, fig. 5.2). The evidence from Reighton must be seen within this broader regional tradition although it would not seem to account for the distinction within the assemblage between the H1/H4 and H2 fabric groups defined here.

Petrology and ICPS analysis

A total of ten sherds were submitted for petrological and chemical analysis. The details of the sherds selected are summarised in Table 5.2.2. The report by Alan Vince forms Section 5.6 of this report and the implications of the results are included in the following discussion.

Table 5.2.2: Samples Submitted for Petrological and Chemical Analysis

Feature	Context	Fabric	Sample no.	Notes
1160	1159	H2	V4052	Finer, sandy textured type
1283	1282	H2	V4046	Coarse sandy texture, densely tempered
1245	1244	H2	V4044	Fine temper
1140	1141	H1	V4048	Finer variant with sparser inclusions
1076	1075	H1	V4049	
1190	1189	H1	V4045	
1022	1020	H2 type	V4047	Very fine sandy textured ware
1329	1324	H1	V4050	
1329	1324	H2	V4054	Hard, dense, black version of H2
1337	1336	H4	V4051	Highly vesicular; probably H1

Vessel typology

The majority of vessels appeared to be jar forms with a limited number which might be described as bowls although the absence of vessel profiles makes positive identification difficult. As with the fabrics, variety in vessel form throughout the assemblage as a whole appeared to be a significant factor. In relation to this, it is of considerable interest to note that the greatest degree of similarity between rims from different vessels was within individual features. Whether this relates to chronology, to vessel function and the location of different activities, or to some aspect of social practice encompassed in the term 'ritual' is at present unclear.

Rims

While there appear to be a number of groups of similar rim shapes, often occurring in the same feature, the assemblage as a whole does not exhibit anything approaching uniformity in terms of the range of shapes. This reflects Mackey's characterisation of Iron Age pottery in East Yorkshire generally:

> 'Pottery from the second half of the 1st millennium BC consists mainly of plain shapeless jars, ranging in size from huge storage vessels to drinking cups. Attempts to subdivide this large group by their more subtle form and rim variations could be a fruitless exercise. Given that production of this type of pottery is likely to be a widespread cottage industry, such differences might simply represent the 'signatures' of different potters or variations in a single potter's product over a short period of time (2003, 120).'

Whether this variability is related to chronology or to some other factor is thus unclear and further investigation of this aspect of later Bronze Age, Iron Age and Roman period wares would clearly be advantageous. Such an investigation is, however, beyond the scope of the present report. In the interim, it is worth noting the characteristics of the discrete groups identified within the assemblage, although at present the precise significance of these groups is far from clear, the exception being the vessels forming Rim type 2 which appear to be of Later Bronze Age date (B. Vyner, pers. comm*).* The numbers assigned to the rim type groups below are arbitrary and intended merely as a guide to the assemblage. They have no necessarily wider significance and should not be used as definitive of particular styles or forms without appropriate qualification and discussion.

Rim type 1

Context 1244: a group of seven rim sherds from vessels of different sizes but with a similar form and all in the H2 fabric group (Fig. 23; Nos 1 – 5). The rims are vertical or slightly everted, with pointed caps and a distinctive angle on the external bulge which enhances the appearance of eversion when viewed from the outside. The group also includes an example from context 1296, in fabric H1. Parallels include Corder and Kirk 1932, fig. 30, nos 1, 2, 3, 7 and 8.

Rim type 2

Context 1324: a group of five large, heavy rims with prominent internal bulges (Fig. 23; Nos 6 – 10). They are typically flat topped or bevelled and in profile either straight or slightly everted. One of the vessels appears to have been repaired after a post-firing breakage and has a number of holes drilled through the walls (Fig. 23; No. 6). Parallels include examples from Castle Hill, Scarborough (Challis and Harding 1975, 43; 8).

It has been suggested that this group of rim sherds is significantly earlier than the remainder of the assemblage and may be of Later Bronze Age date (Vyner pers. comm.). This judgement is based upon the shape of the vessels and the existence of parallels from the site of Castle Hill in Scarborough; the fabrics fell into the rather broad range of variation seen throughout the assemblage as a whole, with nothing to distinguish them from other diverse groups described here. If this dating is correct, then the suggestion has a number of implications for our understanding of the chronology of later prehistoric sites

in East Yorkshire and also for our understanding of the organisation of pottery manufacture and distribution during the 1st millennium BC and into the Roman period. It would seem that there was no essential change in the general nature of the fabrics of the majority, if not all, pottery types between the Later Bronze Age and the Roman period and this must be a matter of some concern in the wider context of pottery studies in East and North Yorkshire.

It is of significance in this regard that two of the samples analysed by Vince (Section 5.6: V4050, V4054) were from context 1324, associated with the rims described here. V4050, submitted as an example of fabric Group H1 proved to be one of three examples of a ware type termed FAB1. V4054 was significantly different and defined as FAB7, petrologically similar to FAB 5, an erratic-tempered ware of a type known to have been used in northern England from the Bronze Age to the 1st century AD (Vince, Section 5.6). This fabric was macroscopically very different to that of the rims identified as of possible Late Bronze Age date, being hard, relatively dense and black in colour. It lacked the vesicular character of the rim sherds. The response to these findings has to be, initially at least, a methodological one. In future it would seem that the identification and description of pottery using purely macroscopic examination or low-power microscopy will not be an appropriate or effective method of dealing with such assemblages. Larger and much more comprehensive programmes of petrological and chemical analysis will be required in order to establish the range and nature of variation within the broader H1/H4 and H2 groups (and their analogues as defined by others) before it is possible to identify possible macroscopic characteristics of the different fabrics distinguishable by petrological and chemical means. In attempting to define fabric groups macroscopically and only then seeking to define them petrologically we have perhaps been working in reverse; a better tactic, and one that must be adopted in the future, is to subject much larger groups of material to systematic petrological analysis with the aim of identifying macroscopic analogues for demonstrable microscopic variation if, indeed, this is possible.

In the present context, given that only ten samples of prehistoric pottery were analysed as part of the present project and in the apparent absence of the type of social structure and manufacturing tradition which leads to the survival of pottery suitable for traditional archaeological artefact typologies, there clearly remain many unanswered questions pertaining to this assemblage (and others from the same area) which only further research will elucidate.

Rim type 3

Contexts 1141, 1250 and U/S Area A: a group of ten everted rims with a very distinctive rim form, including a small pointed cap and external beading, slightly overhanging. The majority of such rims are from context 1141 but single examples were also noted from contexts 1250 and U/S Area A (Figs 5.3; 11 – 16). Context 1141 also included a substantial quantity of Roman greyware and it is possible that these sherds could be classified as Knapton ware (K. Leary pers. comm.) although examples occur in both the H1 and H2 fabric groups. Parallels include Challis and Harding 1975, 40-45; Rigby 1980, fig. 27, no. 4, the latter example supporting the suggestion of a late (possibly 3rd century) date for this rim type.

Rim type 4

Context 1174: one or more jars with similar pinched, slightly everted rims and a rough external finish, cf. Challis and Harding 1975, 39; 3. A similar vessel was identified in context 1324 although this rim was slightly less everted than the others (Fig. 23; Nos 17 – 20).

Rim type 5

Contexts 1052, 1316 and 1324: a small group consisting of three simple flat-topped rims, most probably from bowls rather than jars (Fig. 23; Nos 21 – 23).

Rim type 6

Context U/S Area B: a single rim sherd from a thin walled jar (H1/H4) with a small everted rim (Fig. 23; No. 24).

Rim type 7

Contexts 1008, 1185, 1189, 1242 and U/S Area B: a group of sherds with a distinctive square sectioned vertical rim and flat top enhanced with smoothing or burnishing to emphasise the square character of the rim when viewed from the outside (Fig. 23, Nos 25-31). The sherds from contexts 1242 and U/S Area B are heavier and thicker than the

others (e.g. Fig. 23, No. 26). The external appearance of these two vessels is similar; although internally the U/S example has a curved profile while the sherd from context 1185 (Fig. 23, No. 25) is square in cross-section (cf. Challis and Harding 1975, 38, no. 5). No parallels have been traced for the majority of this distinctive rim type.

Rim type 8

Context 1136: two rims of very different sizes but with a similar profile; flat-topped vertical or slightly everted rim and with a distinctive internal angle (Fig. 23; Nos 32 and 33); cf. Challis and Harding 1975, 33, nos 2, 39, no. 7(?).

Rim type 9

Contexts 1148 and 1244: a number of vessels with vertical or slightly everted rims and an impressed line or pair of lines below the rim, externally (Fig. 23, Nos 34 and 35). As decoration is otherwise virtually absent from the assemblage, these sherds are somewhat unusual. A group of rim sherds from context 1021 (possibly two vessels) have a similar profile but lack the incised lines which distinguish those from contexts 1148 and 1244.

Rim type 10

Contexts 1242 and U/S Area B: thick everted rims with pointed caps, parallels include Challis and Harding 1975, 38, no. 1, 36, no. 6 (context 1242; Fig. 23, No. 37) 43, no. 8 (U/S; Fig. 23, No. 38), and Rigby 1980, figs 40 and 136. Rigby suggests that the type may continue into the 4th century AD.

Rim type 11

Context 1248: three vessels with everted rims and a distinctive external bulge all in the H4 fabric, possibly Knapton ware (Fig. 23, Nos 38 and 39). Didsbury has suggested that a parallel may be found in Rigby 1980, figs 40 and 147, but this example seems to lack the internal ‘dished’ profile of the Reighton example. Evans’ distribution map (1995, fig. 5.7) shows a similar style of vessel which he has denoted as type Kv.

Rim type 12

Contexts 1021, 1306 1033 and 1141: everted rims on globular jars with smoothed or

burnished external surfaces (Fig. 23, Nos 40-44). Sherds from contexts 1141 and 1033 were distinguished by their smoothed buff surfaces (internal and external) and in this regard may differ from the other members of this group. Evans' distribution map (1995, fig. 5.7) shows a similar style of vessel which he has denoted as type Kii.

Rim type 13

Contexts 1020, 1021, 1141, 1148, 1252, 1284: a broad group of vessels with short vertical necks with round or flat tops and smooth or burnished surfaces similar to those seen on the everted rim jars (Fig. 23, Nos 45-49). Possible parallels include Challis and Harding 1975, 49, no. 2 (1141), 46, no. 3 (1252), though these are somewhat more everted than the examples from Reighton, and Challis and Harding 1975, 46, no. 1 maybe closer in shape. These vessels may be similar to those defined as Gii by Evans (1995, fig. 5.6) and are widely distributed in north and eastern Yorkshire.

Rim type 14

This group consists of a variety of rim sherds with a flat topped vertical or slightly everted profile showing considerable variation in fabric (both H1 and H2) in terms of the density and size of inclusions and in the form of the vessels. It is difficult to provide anything in the way of a coherent description of these rims, but they appear to come from both barrel-shaped jars, and vessels with somewhat more globular bodies. Examples are shown in Appendix 3, Fig 23, Nos 50-55. In terms of the fabrics, there is a very high degree of variation between individual sherds. Extremely coarse examples (contexts 1033 and 1250) appear similar in shape to sandy textured sherds (contexts 1290, 1271 and 1282) with others that fall more easily into the standard range of H1 fabrics (contexts 1045, 1139, 1228, 1023, 1250, 1141, 1021, 1278, 1274 and U/S Area A). Only two sherds (sandy textured wares from contexts 1228 and 1271) were noted in the H2 fabric group, the remainder were all H1/H4. It has proved difficult to find exact parallels for these sherds as the rims are so simple in shape, but a number of examples from Heslerton appear to be similar (Rigby 1986, fig. 66, K853DS, K38BK, K853AG, K72BU, see also fig. 64). There are considerable similarities between rim types 13 and 14 and the distinction between the two groups should not be over-emphasised.

Rim type 15

Contexts 1141 and 1248: a small group of thick walled vessels with short, pinched vertical rims giving a pointed cap (Fig. 23, Nos 55 and 56). No parallels have been traced for this type of rim.

Individual rims, seemingly without parallels elsewhere in the assemblage were noted in a number of contexts and these must be dealt with individually.

- Context 1033: A flat-topped rim in a very densely quartz tempered H2 fabric with a distinctive 'sandpaper' like surface (Fig. 23, No. 57);
- Context 1141: Similar in shape to the sherd from 1033 described above but slightly more everted and possibly on a more globular-shaped body. Fabric Group H2 (Fig. 23, No. 58);
- Context 1059: A distinctive collared rim, quite unlike anything else from the site with a round top and the collar defined by a broad finger-sized groove forming a neck. Fabric H1 type but including large, sub-angular (6mm) chalk grit (Fig. 23, No. 59);
- Context 1228: A distinctive 'hammerhead' rim, unique in the assemblage (Fig. 23; No. 60) but which resembles an example from Rudston in the H1 fabric (Rigby 1980, figs 31, 38);
- Context 1189: A thick walled sherd in an H2 type fabric with a small but sharply everted rounded rim (Fig. 23; No. 61). A possible parallel may be found in Challis and Harding 1975, figs 47 and 48;
- Context 1189: A thick-walled sherd with a short, round vertical rim similar to, but more rounded than, rim type 15 in fabric H1. The vessel would seem to have been a globular jar with a relatively narrow aperture (Fig. 23, No. 62);
- Context 1248: A short, rounded rim, slightly everted with a clubbed effect externally in Fabric H1 (Fig. 23, No. 63);
- Contexts 1236 and 1240: Two sharply everted rims in a distinctive sandy textured H2 fabric. Both are from thick walled vessels with broad grey cores and buff internal and external margins. The rim shapes differ somewhat in that the sherd

from context 1236 is somewhat more sharply everted and has a 'dished' upper surface (Fig. 23, No. 64). In contrast, the sherd from context 1244 is more smoothly rounded in shape (Fig. 23, No. 65);

- Context 1328: A small rounded rim, abraded and vesicular (H4) and a dull buff-orange colour throughout;
- Context 1330: A broad, flat-topped rim in an oxidised vesicular (H1/H4) fabric. The body widens to form the broad rim but is not everted in the normal sense of the word (Fig. 23, No. 71);
- Context 1394: A broad flat topped rim resembling the example from context 1330, but perhaps somewhat thinner and with a narrower rim. The vesicular (H1/H4) fabric also resembles that from context 1330 (Fig. 23, No. 72);
- Context 1316: A round-topped rim (Fabric H1) which seems to emerge from a slightly wider body, though the sherd is too small for the precise form to be determined (Fig. 23, No. 73), and;
- Context 1368: a flat topped rim, slightly everted with an equally slight ridge internally, similar to, but less pronounced than that seen on rim type 8 (Fig. 23, No. 74, cf. Fig. 23, No. 33).

Bases

All identifiable vessel bases were flat and the only major variation was the presence or absence of a limited degree of splaying or beading on the angle of the base and the body. The absence of complete vessel profiles precluded any linkage between such features and particular rim shapes. Many bases bore signs of wear on the underside although evidence of burning or sooting on the underside of the vessels was rare. Such deposits were commoner on body sherds and rims and occurred both internally and externally.

Handles

Applied or plugged loop handles were noted on vessels from a number of contexts (1141, 1244, 1189 and 1349). Parallels for these sherds include Rigby 1980, figs 30, 28 and 128; Challis and Harding 1975, fig. 51, no. 4. Loop handles such as these do not seem to have been an uncommon feature of later prehistoric vessels and Evans (1995, fig. 5.4) has

provided a distribution map detailing their occurrence in East Yorkshire. Examples occurred in all three fabric groups. The example from context 1244 is shown in Fig. 23, No. 66.

Knobs and lids

Knob or knop-handled lids were noted from contexts 1216 (Fig. 23, No. 67), 1244 (Fig. 23, No. 68) and unstratified (Area A). Didsbury has suggested that these are an indication of the late date of the assemblage, citing an example from the North Manor at Wharram Percy (Didsbury 2004, figs 10 and 90). An additional example, slightly more elaborate than the Reighton examples has been published by Monaghan (1997, fig. 340, no. 3224). The majority of the Reighton knobs are circular in shape, but the example from context 1244 has a distinctly oval form (Fig. 23, No. 70). With the exception of the knobs, only one sherd was identified as part of a lid. This sherd (context 1364) was both heavily abraded and leached but appeared to be part of a lid with a plano-convex cross section and may have been perforated (Fig. 23, No. 69).

Decorated sherds

Decoration was virtually absent from all sherds, the only exceptions to this being impressed lines on the outside of a small number of vessels (e.g. contexts 1244 and U/S (Area A) and 1075). Other lines might be more properly described as incised (context 1148). Limited burnishing, little more than smoothing with a wooden or bone object was noted on sherds from contexts 1141, 1159, 1228 and 1274, but the majority of sherds do not seem to have received this type of treatment on a systematic basis.

Pot discs

The secondary use of sherds of broken pottery as raw material for the manufacture of discs is common on sites widely separated in both space and time. Pot discs are a common feature of Iron Age sites in Europe (J. Collis pers. comm.) and are also found in medieval contexts and somewhat more commonly on sites of 18th and 19th-century date in northern England. Roman grey ware examples have been noted from sites in West Yorkshire including the Holmfield Interchange, Ferrybridge (Evans 2005, fig. 111, no. 63) and Parlington Hollins (Evans 2001a, fig. 116; 69).

The purposes of such discs presumably varied widely and the commonest explanation is that they were used as gaming counters. Other explanations, including their use as weights, seem less convincing given the absence of any standardisation in size. More exotic suggestions, such as their use as missiles for driving birds off crops, remain entirely speculative. A general absence of the systematic reporting of these objects makes comparison between sites difficult. The details of the examples from Reighton are summarised in Table 5.2.3

Table 5.2.3: Principal Characteristics of the Pot Discs

Grp	Cxt	Fabric	No.	Wt.	ENV	Diam max.	Diam min.	Notes
1	1248	H1	1	6	1	33.6	27.6	Pot disc
1	1248	H1	1	3	1	23.3	21.4	Pot disc
4	1141	H2	1	12	1	33.5	N/A	Pot disc or potsherd with one rounded edge?
5	1236	H1	1	7	1	35.8	N/A	Broken
5	1236	H1	1	3	1	N/A	N/A	Fragmentary
5	1236	H2	1	79	1	79.2	66	Large pot disc
6	1020	H1	1	6	1	32	26	One edge broken
6	1021	H1	1	9	1	38.2	N/A	Broken
6	1023	H1	1	3	1	21.5	N/A	
13	1127	H1	1	14	1	44	37.5	One edge broken
18	1174	H1	1	5	1	25.9	20.3	
18	1174	H1	1	2	1	21	18.3	
N/A	1324	H1	1	86	1	76.7	58.3	Large irregular pot disc; rough pitted vesicular surface ext
N/A	1324	H4	1	14	1	N/A	N/A	Highly vesicular; possible pot disc fragment
N/A	1324	H4	1	3	1	N/A	N/A	Highly vesicular; possible pot disc fragment
N/A	1324	H4	1	5	1	N/A	N/A	Highly vesicular; possible pot disc fragment

Chronology

As discussed above in the context of the sherds of later Bronze Age date from context 1324, the problems of assigning the handmade pottery to a specific date range are considerable. Writers dealing with comparable material from other sites have noted the extremely long duration of local fabric traditions, a characteristic that recalls the long use of shell-bearing clays in Lincolnshire and Northamptonshire. Rigby's Vesicular wares appear to span the period between the 9th century BC and the end of the Roman period (Rigby 1986, 145) while her Erratic Tempered wares seem to have slightly shorter lifespans, but still one which covers the Iron Age and Roman periods. Vince (Section 5.6) has noted that other authors have suggested a Bronze Age to Iron Age span for the Erratic Tempered wares and has suggested that they too may have continued in use into the Roman period. Rigby's earlier work on the assemblage from Rudston Roman villa (1980,

92-3) supports this broad date range with her Fabric 2 (calcite tempered wares) continuing from the late Iron Age and through the Roman period, with changes in form rather than fabric over time. Evans has suggested that the major change in local ceramic use comes at the end of the 2nd century with the decline of locally manufactured wares and the rise of more centralised production of Knapton and Huntcliff-type wares (Evans 1995, 61, 65). As noted above, calcite gritted wares in York do not seem to have been used by the military population (although it was in common use in the surrounding area) and such wares only become significant after *c*. 280AD, persisting in use into the 4th century AD (Monaghan 1997, 908).

In considering the typological aspects of the Reighton assemblage, Didsbury noted that:

> 'As far as the Iron Age vessel forms are concerned, the assemblage … is dominated by rim forms which Challis and Harding (1975, 91-99) regard as characterising their 'La Tène III' in eastern Yorkshire. Prominent among these are varieties of jar with upright flat-topped rims. Where enough of the vessel survives to enable valid comparison with published vessels … the best parallels would seem to be with sites occupied in *c.* the second and first centuries BC and the first century AD, such as Levisham Moor, Faxfleet 'A', Costa Beck, Langton Villa (Corder and Kirk 1932) and Wharram Percy North Manor (Didsbury 2004). A number of handled jars of the type known from Thornton le Dale, Levisham Moor Enclosure 'A' and Rillington (Challis and Harding 1975, fig. 51, no. 4, fig. 49, no. 5, and fig. 37, no. 5) tend to suggest a particularly late Pre-Roman Iron Age element in the assemblage, as might a number of knop-handled lids, *cf.* an example from Wharram Percy North Manor (Didsbury 2004, fig. 104; 90). It should also be borne in mind that handmade vessels in the Iron Age tradition tend to constitute the majority of material on non-nucleated rural sites in the region through much of the second century. Post-Conquest material within this continuum is virtually impossible to recognize on fabric grounds, and, while a Romano-British date can sometimes be suggested by vessel form, there is nothing in the present site assemblage which allows this to be postulated with any degree of certainty (Didsbury 2007).'

This conclusion remains valid for the majority of the pottery with the exception of the rim sherds from context 1324 which, it would seem, are somewhat earlier in date.

Mackey's conclusions regarding the problems of dating pottery from the second half of the 1st millennium BC and throughout the Roman period (2003, 120-21) remain entirely valid and can be extended back into the earlier 1st millennium BC. There is no suggestion in any of the reports published to date that there is a chronological distinction to be made between the two principal fabric groups, H1/H4 and H2, although it is probable that some of the distinctions which might be made on the basis of scientific analysis will have chronological implications. It is not possible, on the basis of the data available here, to determine what the chronologically significant variations will be.

Discussion

Distribution of the pottery on the site

A number of authors have drawn attention to the non-random distribution of material culture on Iron Age and early Roman sites in Britain. The most well known of these is Hill's work on pits on sites in southern England (Hill 1995), Hingley has looked at the distribution of currency bars more widely (1990) while Chadwick has identified what he refers to as 'placed deposits' on sites in north Nottinghamshire and southern Yorkshire (pers. comm.). In view of this it was decided that it would be worth exploring aspects of the distribution of the pottery across the site. Such analysis will only make sense when it is applied across a number of contemporary (or broadly contemporary sites) but such inter-site comparison is beyond the scope of this report and so the following suggestions are intended to raise issues which might be addressed more fully in the future. All the graphs discussed in the following sections use the estimated (maximum) number of vessel figure (ENV) as the basis for the quantification. Absolute vessel numbers and the weight of sherds are presented in Appendix 2 and the data form part of the site archive in order that it may be re-examined in a research context in the future.

The distribution of the pottery was examined according to the context groups defined elsewhere in the report, and to phase where possible. A small number of these (Groups 9, 11, 14, 20 and 21) produced such low numbers of sherds that it was not deemed possible to rely upon them as a source of comparative data. They are discussed together below. The first part of the discussion focuses on those groups which produced larger quantities of material (context groups 1, 4, 5, 6, 7, 8, 12, 13, 18 and 23).

The details of the Romano-British pottery from the site are discussed in detail in Section 5.3, but the fact that it appears that wares in the native tradition (which may, on the evidence presented here, have extended back into the later Bronze Age) continued in use into the later Roman period, alongside wheel-thrown wares, is one of considerable significance in understanding the relationship of material culture to wider aspects of society and social practice. A full discussion of this subject, one central to our understanding of Romano-British society and the process of 'Romanisation' (Meadows 1997), is beyond the scope of this report but it is necessary to make some attempt to bring the two bodies of data together in order to assess any chronological implications as well as to outline areas with which future work on this and comparable assemblages might be concerned. A more detailed consideration of the wheel-thrown Romano-British wares can be found in Section 5.3; this section will focus on the handmade wares.

Context Group 1 (Phase 3a)

Group 1 contexts consisted of boundary ditches running north-south (1149) and east to west (1233 and 1249). In both cases Fabric H1 was predominant (Appendix 2 and Fig. 5.2a) with very small quantities of H2 and other wares. Group 1 produced one of the highest proportions of wheel-thrown pottery from the site (78% of the total) dating to the first half of the 3rd century AD (Section 5.3). Whether this implies that the handmade vessels from this group are equally late is unclear, but must be considered as a possibility. Examples are shown in Appendix 3, Fig. 23, Nos 23, 34, 38, 39 and 63.

Context Group 4 (Phase 3b)

The pottery from the Group 4 contexts; an east-west gully and boundary ditch (1140, 1160 and 1231) and a pit (1281) was evenly split between types H1 and H2, but included a significant group of H4 which, if added to the H1 total, would make this type the commonest within the group (Appendix 2 and Fig. 5.2a). There did not seem to be any significant distinctions between the individual contexts making up this group in terms of the representation of the different fabric groups. Wheel-thrown pottery from this context group indicates a date in the early 2nd century, but it also included rim sherds similar to 3rd century examples identified by Rigby (1980, fig. 27, no. 4, cf. Fig. 23, Nos 12, 13, 14, 15 and 16). Other illustrated sherds include Fig. 23, Nos 40 and 44 which form part of rim type 12 with parallels amongst Evans' type Kii (as discussed above). Other examples

from this context group are shown in Appendix 3, Fig. 23, Nos 48, 55, 56 and 58.

Context Group 5 (Phase 3b)

Like Group 1, the Group 5 contexts consisted of a series of boundary ditches running east-west (1251) and north-south (1237, 1243 and 1253). In contrast with Group 1, both principal fabric groups were present, with H1 the more numerous, reflecting the pattern seen across the site as a whole (Appendix 2 and Fig. 5.2a, cf. Table 5.2.1). This apparent distinction is perhaps not as significant as it might seem given the evidence of a cross-context join between contexts 1141 and 1251 which would suggest that these features were open at the same time. In contrast to other features in which rim sherds with a similar form appeared to occur together, those from Group 5 were diverse in character (cf. Fig. 23, Nos 37, 45, 53 and 64). The significance of this observation, if any, is unclear.

Context Group 6 (Phase 3a)

Group 6 contexts consisted of a further series of boundary ditches (east to west; 1010, 1019 and 1028, south-west to north-east; 1022 and north-south; 1076). As the graph shows (Fig. 5.2a, cf. Appendix 2), fabric Group H1 was the most numerous, forming approximately three-quarters of the handmade wares. This proportion does not appear to vary to any significant degree between the different ditches and is broadly similar to the general representation of the two fabric groups across the site as a whole. H4 formed a negligible proportion of the total, suggesting that ground conditions were generally favourable for the preservation of the calcareous inclusions. Context Group 6 produced some of the latest wheel-thrown wares on the site, dating to the first half of the 3rd century AD, forming 50% of the total (Section 5.3). It may be that the handmade vessels are equally late, but there is little to indicate this in the range of diagnostic sherds. The majority of rims from the context group were undistinguished flat-topped types, but three of the more distinctive examples; short vertical rims, apparently on globular, jar-like vessels, are illustrated (Fig. 23, Nos 41, 42 and 47).

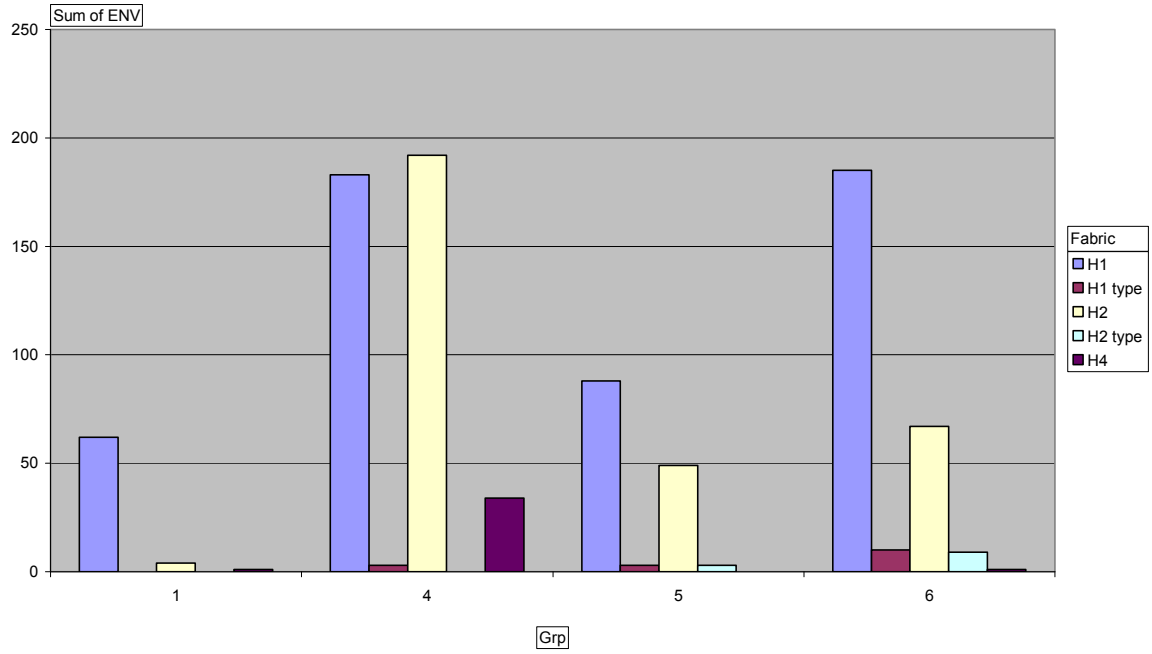

Figure 5.2a: Pottery from Groups 1, 4, 5 and 6 (Phases 3a and 3b)

Context groups 7 and 8 (Phase 2c)

Context Groups 7 and 8 both produced small pottery assemblages (Appendix 2 and Fig. 5.2b) from further boundary ditches. The general profile of both groups was similar with fabric Group H1 predominant alongside smaller quantities of H2 and H2 type. As noted above, a similar pattern can be seen in Groups 1, 5 and 6. As with context Group 5 the rims appeared to be diverse in character. Context 1059 (Group 7) produced an entirely unique rim (Fig. 23; No. 59), seemingly without parallel on the site or elsewhere. Two rims from Group 8 (Fig. 23; Nos 21 and 31) included a simple flat-topped example (Fig. 23, No. 21) and a member of the distinctive rim type 7 group (Fig. 23, No. 31). Neither group produced any wheel-thrown pottery, a possible, but not entirely reliable, indication of a pre-Conquest date for these features.

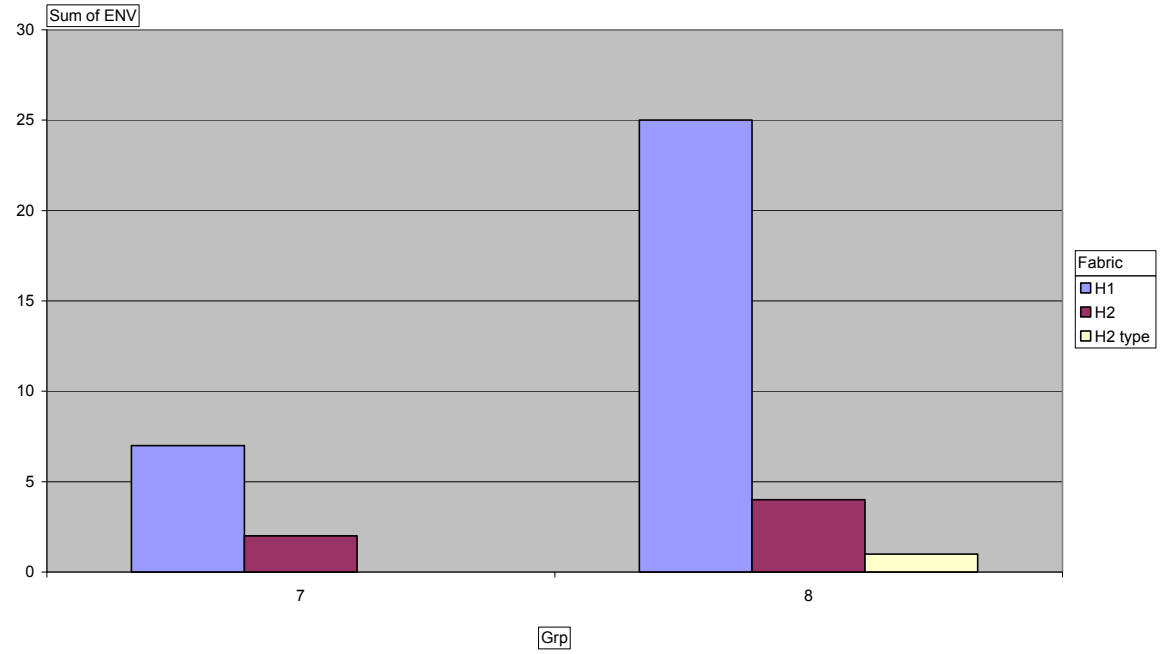

Figure 5.2b: Pottery from Groups 7 and 8 (Phase 2c)

Context Group 12 (Phase 2c)

Two features were included in Group 12; a north-south gully (1100) and the recut east to west boundary ditch (1186) which, as 1190 forms Group 13. Both of the Group 12 features were dominated by fabric Group H1, the only exceptions being a number of small irregular lumps of fired clay (classified as H type) and a single heavily abraded sherd of Group H2, both from the recut of the east-west ditch (Fig. 5.2c). Only two diagnostic sherds were recovered from Group 12, one of which was a simple flat-topped rim, smoothed internally and externally. A more distinctive sherd is shown in Appendix 3, Fig. 23, No. 25. It forms part of the rim type 7 group. Wheel-thrown pottery was absent from this group.

Context Group 13 (Phase 2b)

The pattern seen in Group 12 is repeated in the earlier phase of the east to west ditch 1190 and in the small group of pottery from 1128, the recut of an earlier ditch, 1130. The latter group is extremely small and little reliance can be placed on it, but that from 1190 includes a sizeable assemblage (Appendix 2 and Fig. 5.2c) and the virtual absence of sherds of H2 is notable. The rim sherds from this context group (specifically context 1189) included the normal range of flat-topped types, but also a substantial proportion of

those forming rim type 7 (Fig. 23, Nos 22, 28, 29 and 30) as well as two unclassifiable rim sherds shown in Fig. 2, Nos 61 and 62. The group also included fragments of three loop handled jars. Wheel-thrown pottery was absent from the group.

Context Group 18 (Argham Dykes recut, Phase 2a)

The small group from Argham Dykes consisted entirely of sherds from fabric group H1 (Appendix 2 and Fig. 5.2c), including three small everted jar rims (Fig. 23, Nos 17-19), the majority of the examples of rim type 4 and two pot discs (Table 5.2.3). Wheel-thrown pottery was absent from the group.

Context Group 23 (Phase 1)

As with Group 18, Group 23 was dominated by fabric Group H1 with a smaller component of H4 (Appendix 2 and Fig. 5.2c), most probably indicating a variation in ground conditions rather than any significant difference in any other factor. This is of interest in that Group 23 represents the material from the ditches surrounding a roundhouse, but there is little in the nature of the material to distinguish it from the fills of the boundary ditches in Groups 1, 12 and 13. Other ditch fills, however, contained greater quantities of Group H2 sherds. The two rim sherds from Group 23 were similar to each other and rather different to rims from other contexts. For this reason they constitute the entirety of rim type Group 8 (Fig. 23, Nos 32 and 33). The remaining illustrated sherd from this group is a fragment of a lid with a perforation (Fig. 23, Nos 69).

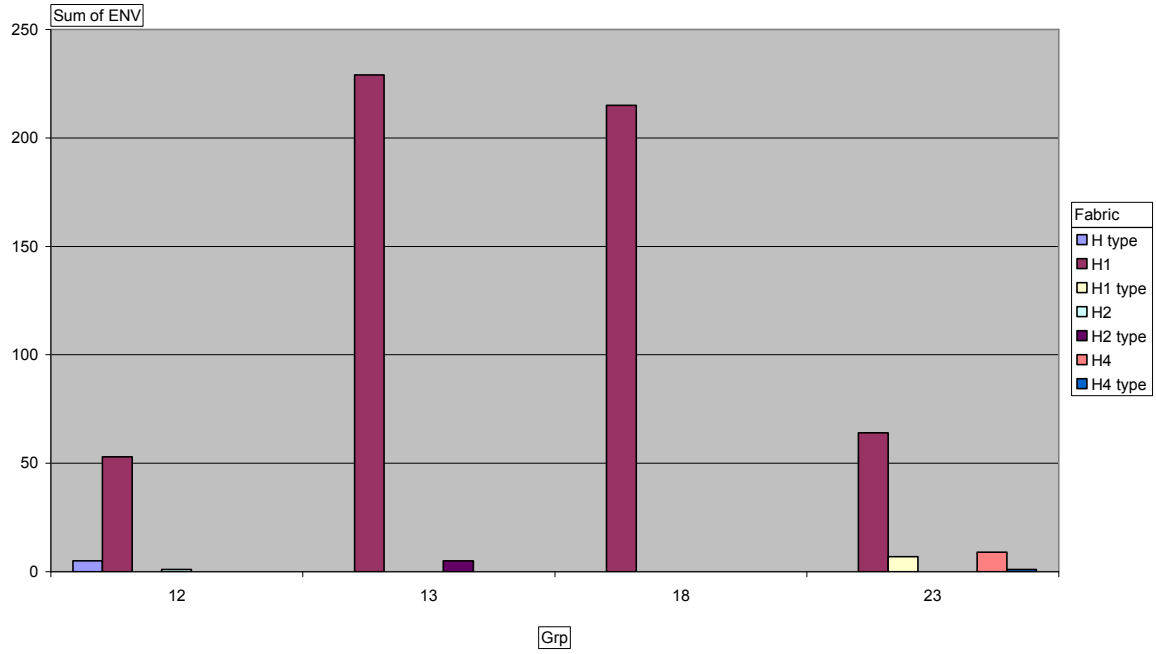

Fig. 5.2c: Pottery from Groups 12 (Phase 2c), 13 (Phase 2b), 18 (Phase 2a) and 23 (Phase 1)

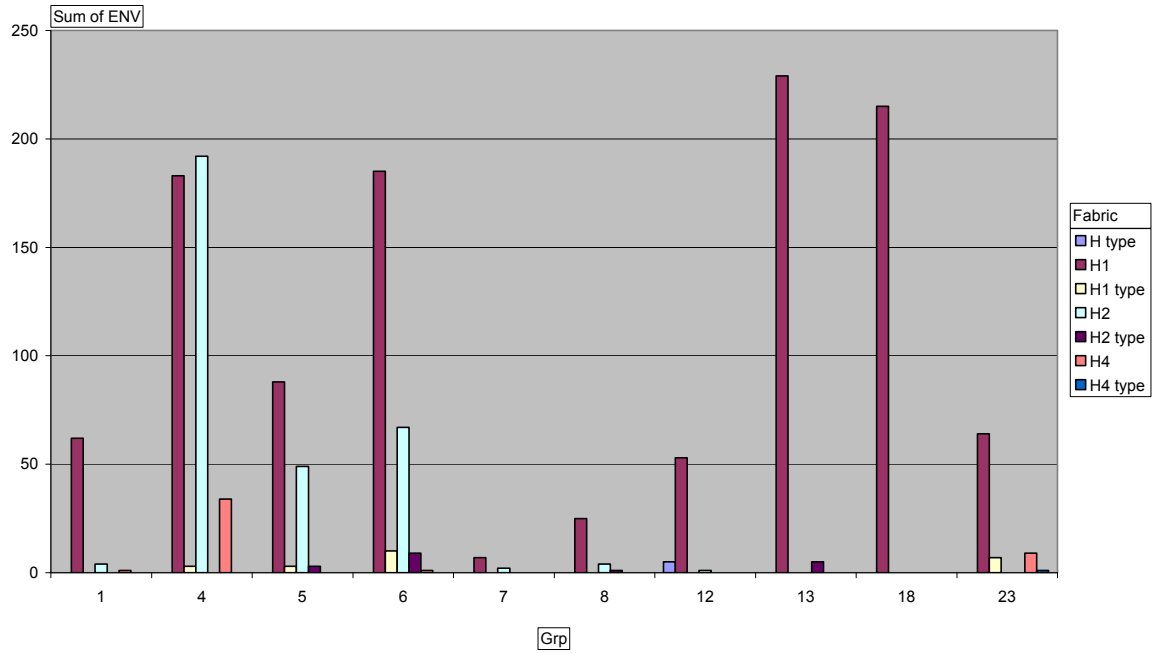

Fig. 5.2d: Comparison of Pottery Assemblages from Phase 3c (Group 1), Phase 3b (Groups 4 and 5), Phase 3a (Group 6), Phase 2c (Groups 7, 8 and 12), Phase 2b (Group 13), Phase 2a (Group 18) and Phase 1 (Group 23).

Figure 5.2d shows the representation of the different fabric groups across the context groups and phases described above. For the sake of clarity the smaller context groups have been omitted, as noted above.

Figure 5.2d indicates that the distribution of fabric groups across the context groups is not even. While H1 occurs in every group, H2 is concentrated in context groups 4, 5 and 6 with much smaller quantities in groups 1, 7 and 8. Although it could be argued that this mirrors the distribution of wheel-thrown wares which are present in all three groups, the very small proportion of H2 in context Group 1 would seem to cast some doubt upon this suggestion. Again, however, the unknown influence of a number of variable factors on the composition of the assemblages from individual features and feature groups precludes the drawing of significant conclusions from the data. Fabric Group H4 occurs principally in context groups 4 and 23, perhaps indicating that the fills of these features were somewhat more acidic than those of the others.

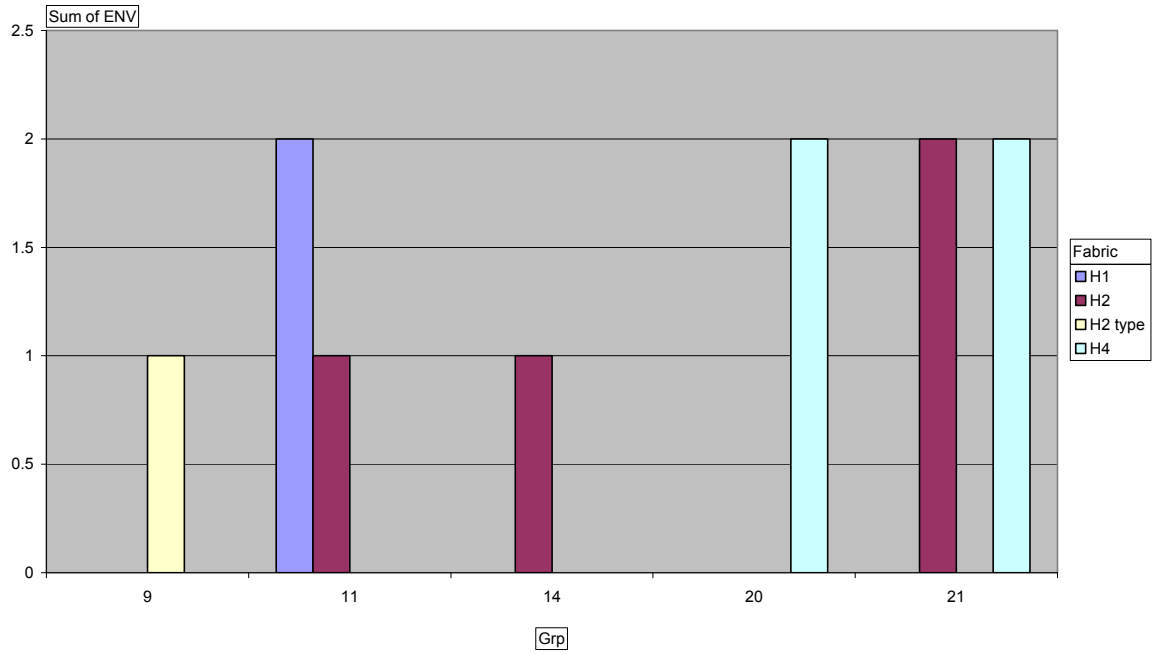

Fig. 5.2e: Comparison of Pottery Assemblages from Groups 9 (Phase 2), 11 (Phase 3), 14 (Phase 1), 20 and 21 (Phase 4)

Figure 5.2e shows the very small quantities of pottery from groups 9, 11, 14, 20 and 21. While parallels could be drawn with the distinctions evident in the larger groups and shown in Appendix 3, this would be hazardous, given the low numbers of sherds involved. As noted elsewhere (Section 5.3), quantities of wheel-thrown pottery from

these groups were also low, so no chronological or other conclusions can be drawn from the data.

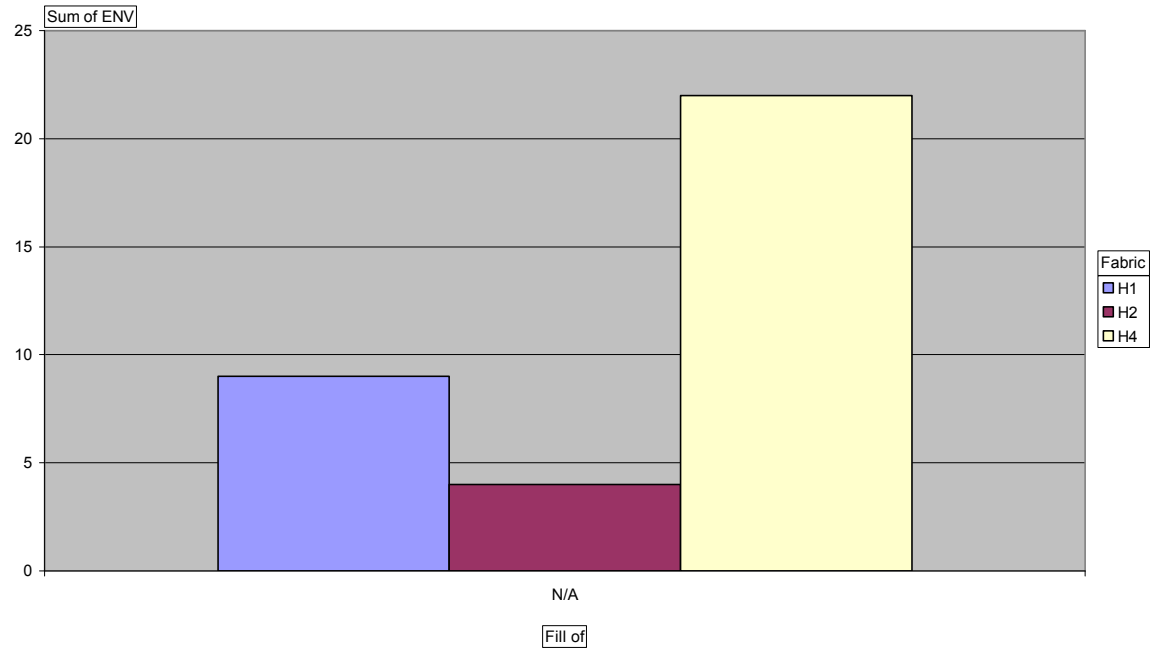

Fig. 5.2f: Unstratified and Unassigned Pottery

Pottery unassigned to context groups

A significant part of the assemblage was from features not assigned to any specific context group (Appendix 2 and Figs. 5.2g-h). A variety of types of feature are subsumed in this broad category and, overall, H1 and H2 wares appear to be almost equal in quantity, at odds with the general picture for the site as a whole where H1 outnumbered H2. If the H4 is added to the H1 group, the combined Group H1/H4 exceeds H2 but this does not lessen the impression of a rather different distribution of fabric groups to that seen across the site as a whole.

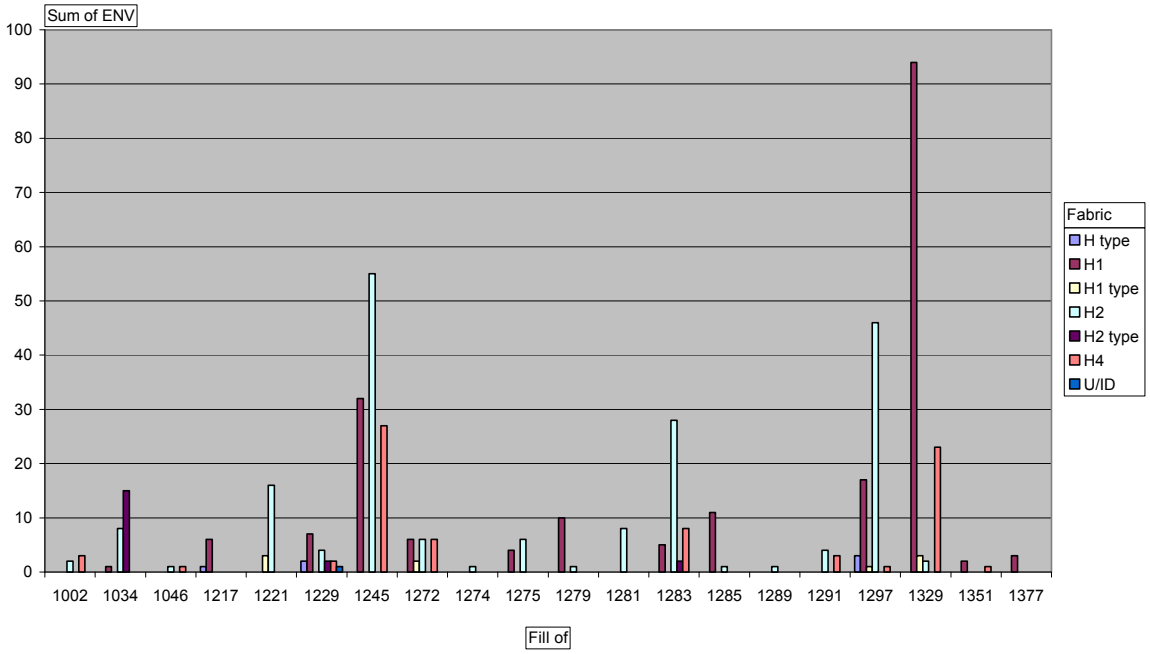

Fig. 5.2g: Pottery from Pits Unassigned to Groups

The majority of features which produced pottery but which were not assigned to specific context groups were pits (context numbers 1002, 1034, 1046, 1217, 1221, 1229, 1245, 1272, 1274, 1275, 1279, 1281, 1283, 1285, 1289, 1291, 1297, 1329, 1351 and 1377). The representation of fabric groups in these features is shown in Fig. 5.2g. Many of the pits produced only small quantities of pottery but the assemblages from 1034, 1221, 1245, 1283, 1297 and 1329 were all of a larger size. The assemblages from pits 1034, 1221, 1283 and 1297 all produced significant quantities of sherds of fabric Group H2 (and H2 type in the case of 1034). In contrast, pit 1329 was dominated by fabric groups H1 and H4 with H2 forming only an insignificant proportion of the total. It has been suggested (Vyner, pers comm.) that the vessels from this feature, at least as represented by the rim sherds (Fig 23, Nos 6-10, 20 and 23) are of Late Bronze Age date and the analysis of two of the sherds from this feature (Section 5.6; sample numbers V4050 and V4054) indicates that the H2 sherd (V4054) is in fact a distinct type, similar to a sample of the H2 ware from context 1282, the fill of pit 1283. As noted elsewhere, these observations require further investigation and underline the importance of programmes of scientific analysis as part of standard practice in the reporting of pottery from sites such as Reighton throughout eastern and northern Yorkshire.

Pits 1285 and 1289 contained very little handmade pottery but produced wheel-thrown vessels dating to the later 2nd to mid 3rd centuries. Given that other groups of pottery

with a similar or later date range included significant quantities of handmade wares (e.g. context groups 1 and 6), it may be that this is a reflection of some aspect of the use or deposition of the pottery, rather than an indication that wares in the local tradition were being displaced by wheel-thrown wares.

Pit 1283 produced a wide variety of wheel-thrown ware and this was accompanied by a relatively small quantity of handmade pottery, mainly of H1 type. In contrast, Pit 1245 produced very little wheel-thrown pottery but a larger quantity of handmade in all three principal fabric groups. The absence of obvious patterning in the distribution of ware types across the site remains one of the characteristics of this site (and others of a comparable type) and has yet to be explained. An outline of the type of work required to resolve these problems is provided in the conclusion.

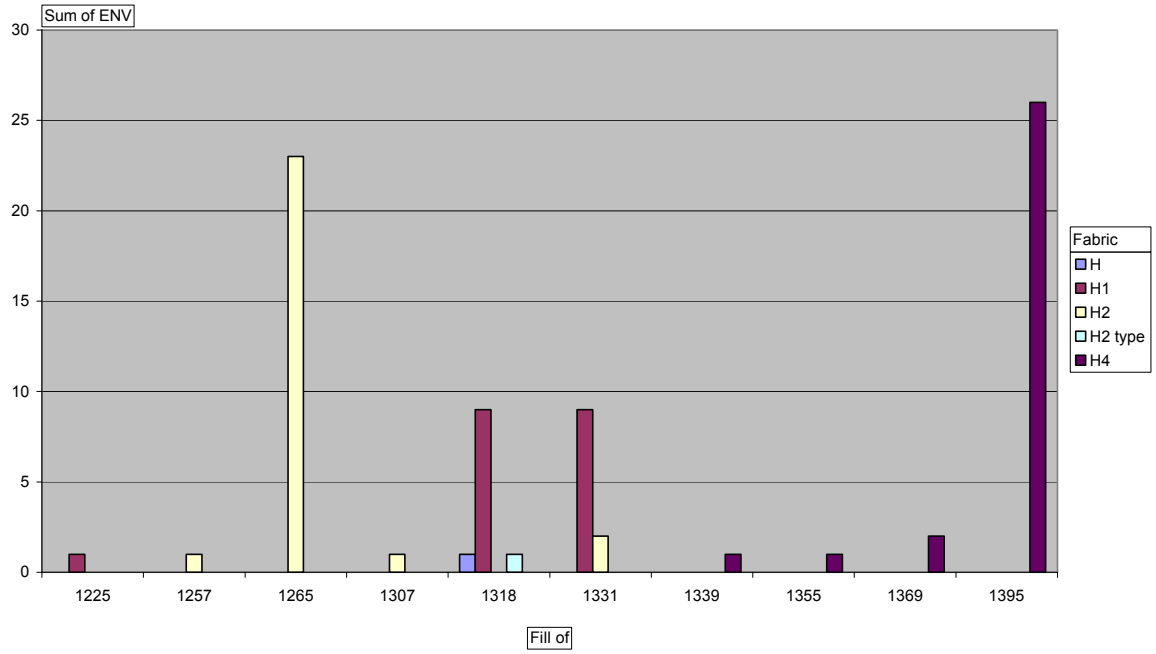

Fig. 5.2h: Pottery from Non-pit Features Unassigned to Groups

Other features included post-holes, tree boles and unassigned ditches (contexts 1225, 1257, 1265, 1307, 1318, 1331, 1339, 1355, 1369 and 1395). Here H1 was predominant in features 1225, 1318 and 1331 while fabric Group H2 was predominant in 1257, 1265 and 1307 (Fig. 5.2h). Fabric Group H4 was the commonest type in four features (1339, 1355, 1369 and 1395) possibly an indication of acidic ground conditions in these features differentially affecting pottery belonging to fabric Group H1.

A number of sherds came from unstratified deposits (U/S) unassigned to specific features and details of this material can be found in Appendix 2 and Fig. 5.2f. It included a number of individual items of interest which are illustrated in Appendix 3, Fig. 23, Nos 11, 24, 26 and 34.

Conclusions

During the preparation of this report a number of issues pertaining to the later prehistoric and Roman periods in East Yorkshire have become apparent. A number of these echo the opinions of other writers concerned with the area and have been set out elsewhere (e.g. Mackey 2003) but others pertain to the pottery specifically and are worth stating:

- No obvious evidence of placed or structured deposits was identified, but in part this could be because the nature of the evidence for such structuring is more complex than a simple focus on pottery will identify. A broader approach to the deposition of a variety of types of material culture and other items including animal bone may be required in order to identify patterning in deposition and discard. As with other suggestions made in this report, the consequence of this is the development of appropriate methodology in order to address such questions;
- Comprehensive programmes of petrological and chemical analysis should be integral to future reports on pottery assemblages of this date and type. Given the problems inherent in typological studies alone (discussed here and also by Mackey (2003), a more broadly based approach combining a number of techniques must be considered, not only as a research priority but also as a fundamental requirement of any report on such assemblages. In retrospect, the number of samples analysed for this report (Section 5.6) was perhaps too small to allow the full complexity of the assemblage to be understood, although the results were sufficient to indicate the inadequacy of both typology and the macroscopic examination of the vessel fabrics as ways of understanding the assemblage;
- A focus on the organisation of production and circulation as a framework for the description of the pottery industry and of the interpretation of pottery data may be a useful method of proceeding, rather than concentrating on traditional vessel typologies and fabric characterisation alone. We may need to make our assumptions more explicit before the character of the pottery can be understood in its own right, rather than simply as an unexamined background to, and source of information pertaining to, chronology

and settlement dynamics. Mackey's suggestion that production was organised as a 'cottage industry' (cited above) may be accurate, but it is worth noting that similar suggestions in respect of early Anglo-Saxon pottery have been found wanting (Blinkhorn 1997). In the light of this, the formulation of new approaches may be required (See Conclusion)

5.3 Romano-British Pottery

by R. S. Leary

Introduction

An archive catalogue was compiled for all the pottery according to the standard laid down by the Study Group for Romano-British Pottery (Darling 2004). Pottery was recorded detailing specific fabrics and forms, decorative treatment, condition, cross-joins/same vessel and was quantified by sherd count, weight and rim percentage values, giving estimated vessel equivalents. All the pottery from the site was catalogued in the archive and the stratified pottery was examined in order to date the features. Key groups are illustrated and catalogued and pottery not illustrated is summarised. National fabric collection codes (Tomber and Dore 1998) are included where possible.

For the purposes of this report the term Romano-British is being used to refer to wheel-thrown pottery made using the technology brought by the Romans to Britain and used to make pottery in new forms and fabrics to meet the needs of Romans living in Britain and of people with a variety of backgrounds living in Britain during the Roman period and generally referred to as Romano-British people. For most of the Roman period the occupants of the Reighton settlement continued to use handmade pottery of the same types as they had used before the Romans arrived but supplemented it with Romano-British pottery from time to time as they were able or saw fit. Although this handmade pottery is dealt with in Section 5.2, it is included here in the analysis of the pottery vessels and wares being used during the Roman period on the site.

Fabric descriptions

The fabric of the pottery was first examined by eye and sorted into fabric groups on the basis of colour, hardness, feel, fracture, inclusions and manufacturing technique. A

sample of the sherds was further examined under an x30 binocular microscope to verify these divisions. The size of the sample was as large as was felt necessary for each fabric group. A sample of sherds were submitted to Alan Vince for more detailed characterisation, the results of which form Section 5.6 of this report.

Glossary

Colour: narrative description only

Hardness: after Peacock 1977

- Soft: can be scratched by finger nail
- Hard: can be scratched with penknife blade
- Very hard: cannot be scratched

Feel: tactile qualities

- Smooth: no irregularities
- Rough: irregularities can be felt
- Sandy: grains can be felt across the surface
- Leathery: smoothed surface like polished leather
- Soapy: smooth feel like soap

Fracture: visual texture of fresh break, after Orton 1980.

- Smooth: flat or slightly curved with no visible irregularities
- Irregular: medium, fairly widely spaced irregularities
- Finely irregular: small, fairly closely spaced irregularities
- Laminar: stepped effect
- Hackly: large and generally angular irregularities

Inclusions:

- Type: after Peacock 1977
- Frequency: indicated on a 4-point scale - abundant, moderate, sparse and rare where abundant is a break packed with an inclusion and rare is a break with only one or two of an inclusion.

Sorting: after Orton 1980

Shape: angular - convex shape, sharp corners

- Sub-angular: convex shape, rounded corners
- Rounded: convex shape no corners
- Platey: flat

Size: sub-visible - only just visible at x30 and too small to measure

- Fine: 0.1-0.25mm
- Medium: 0.25-0.5
- Coarse: 0.5-1mm
- very coarse: > 1mm

The Fabrics

B: Black-burnished ware

BB1T: black throughout. Hard with hackly fracture and smooth feel. Abundant, well-sorted, medium, sub-rounded quartz and sandstone and rare, very coarse sub-rounded quartz. Surface has abundant medium mica making it glisten in the light.

BB2T: dark grey/black with buff margins. Moderate, fine, well-sorted, sub-rounded quartz and sparse coarse sub-rounded quartz, copying BB2. 1288

M: mortaria

Mancetter-Hartshill, Warwickshire

Fine-textured, cream fabric, varying from softish to very hard, sometimes with pink core; self-coloured or with a self-coloured slip. Inclusions usually moderate, smallish, transparent and translucent white and pinkish quartz with sparse opaque orange-brown and rarely blackish fragments; rarely white clay pellets (or re-fired pottery). The range in fabric is in fact, quite wide, from that with virtually no inclusions to fabrics with a fair quantity and fabrics with hard, ill-sorted black inclusions. The trituration grit after AD130-140 consisted of hard red-brown and/or hard blackish material (probably re-fired pottery fragments), with only very rare quartz fragments. Tomber and Dore 1998, MAH WH.

O: oxidised wares

OAB1 orange. Hard and sandy feel. Irregular, fracture. Moderate, well-sorted, medium, sub-rounded quartz.

GR: grey wares

GRA1: medium grey, hard, fairly smooth with finely irregular fracture. Moderate, fine, well-sorted, sub-rounded quartz, sparse. medium, sub-rounded quartz and rare, coarse, rounded iron oxides and medium, rounded white, calcareous inclusions, 1288.

GRA2: dark grey with buff core. Fairly soft, slightly sandy feel. Finely irregular fracture. Moderate well-sorted, fine, sub-rounded quartz and rare medium rounded white calcareous inclusions. This fabric is virtually the same as GRA1 but for surface colour and hardness, 1232.

GRA3: pale grey, hard, smooth with fairly smooth fracture. Sparse, medium, sub-rounded quartz, 1008.

GRB1: dark grey with grey core and buff margins. Fairly hard, smooth with irregular fracture. Sparse-moderate, medium/fine, sub-rounded quartz, fairly well sorted and rare, ill-sorted fine to coarse, rounded grey/black inclusions, 1141 reeded-rim bowl.

GRB2: grey with grey core and buff margins. Hard, sandy feel and irregular fracture. Moderate, well-sorted, medium, sub-rounded quartz with rare white medium rounded calcareous inclusions. Similar to R1 but harder and slightly coarser, 1282.

GRB3: medium grey, hard, sandy feel, irregular fracture. Moderate, medium, sub-rounded quartz and rare, coarse, rounded grey inclusions, 1023.

GRB4: dark grey surface with grey core and buff margins. Hard with smooth feel and smooth fracture apart from sparse inclusions. Sparse, well-sorted, medium, sub-rounded quartz, 1020.

GRB5: medium grey with pale buff/white margins and grey core. Hard, smooth feel and irregular fracture. Moderate, well-sorted, medium, sub-angular quartz and sparse, coarse, rounded iron oxides and white round inclusions, 1284.

Chronology

Just over 300 sherds of Romano-British coarse pottery (4654g.) were recovered with an average sherd weight of 14g. The earliest identifiable Romano-British coarse pottery type present is a reeded rim bowl from context 1141 secondary fill of 1140 Group 4 (Phase 3b, No. 5) and perhaps a second example from context 1139 primary fill of 1140 (Phase 3b). At York and in the Midlands and Yorkshire generally this type dates to the late 1st to early 2nd century (Gillam 1970, no. 217, AD 110-130) although at Malton, Bidwell and Croom (1997, 101) extend this date range into the Antonine period. A date in the early 2nd century would agree with the dating suggested for this specific form elsewhere. One mortarium was found (No. 18), from pit 1229 (Phase 3a), and this dates to the mid 2nd century. These vessels indicate a very low usage of Romano-British types in the 2nd century (see below) and this can be paralleled even at more Romanised sites like Rudston villa. In a group which is given a *terminus post quem* of AD 150 by samian ware from beneath building 2 (Rigby 1980, 47) there were only three samian vessels (a cup and two bowl/dishes), a mid 2nd century mortarium and a grey ware sherd. Rigby notes that around 10% of the pottery is wheel-thrown in groups of 2nd century date (1980, 50). The overall composition of the group indicates Romano-British pottery types were acquired mainly in the late 2nd to 3rd centuries, perhaps intermittently, since the quantities are small. Very little 4th-century pottery is present and the absence of proto-Huntcliff and Huntcliff wares suggest that occupation may have not lasted into the 4th century or that

the focus of pottery deposition moved elsewhere. The latest vessel is the Crambeck ware large jar from context 1021 primary fill 1022 Group 6, Phase 3a (No. 8), which must be dated after AD 270, the date favoured for the spread of Crambeck ware across the region. This vessel certainly shows some activity nearby but it may be that the nature of that activity had changed and cooking pots were no longer being discarded within the excavated area.

The dating of the wares and vessel types

The Romano-British vessels present are in types made at kiln groups such as Norton (Hayes and Whitely 1950, types 2, 4 and 10), dated from the late 2nd century *c.* AD 270 by Swan (2002, fig. 17) and Holme-on-Spalding Moor (abbreviated to HOSM hereafter, Corder 1930, figs. 13 and 14; Halkon and Millett 1999), dated from *c.* AD 220/30 to the late 3rd century and into the early 4th century by Swan (2002, fig. 16, no. 63). The fabrics are difficult to assign to a kiln group since although some fabrics seem characteristic of one industry (Tomber and Dore 1998, 158 HSM RE), similar fabrics were made at all the potteries and certain attributions may be spurious (Monaghan 1997, 900-901). The fabrics were compared with samples from both kiln groups. The most common reduced fabric on the site, GRA1, did not compare well with any of the kiln fabric samples and it is suggested that this fabric may precede the main period of activity at these kiln groups, perhaps in the late 2nd early/mid 3rd centuries. The vessel types included BB2 type bead rim dishes of the late 2nd to early/mid 3rd centuries (No. 19), a lid-seated jar of Antonine type (No. 17) and a wide-mouthed jar (No. 9). This last vessel contrasts with the heavy rimmed jars from Norton and HOSM and compares well with 3rd-century types at Lincoln (Darling 1999, fig. 37, nos 374-7). Fabric GRA2 was similar to a sherd from the HOSM group and none of the vessel forms in this fabric was diagnostic. Fabric GRA3 compared well with a fabric from Norton. Most of the sherds in this group came from a large jar in the primary fill of ditch 1010 Group 6 (Phase 3a). The vessels in fabric GRB1, two reeded-rim bowls (No. 5), suggest an early date in the early 2nd century. Fabric GRB2 was coarser than the aforementioned fabrics and was used to make a BB2 type dish and a splayed base which had a surface crack across the bottom. This base was poorly made and may well be of local manufacture. The majority of the sherds in fabric GRB3 came from a large jar (No. 6) with loop handles and wavy line decoration which was similar in fabric and form to samples from Norton. Two carinated beakers, also in this fabric, were of a type dating to the early to mid-3rd century (No. 2).

Fabric GRB4 compared with samples from HOSM. The forms, a wide-mouthed jar with sharply everted rim and a lipped dish (Nos 10 and 11), are not incompatible with this source and fragment of several other wide-mouthed jars were identified in this fabric. Fabric GRB5 was rare and may be a variant of GRB3. It was used to make a lipped rim dish, common in the 2nd to 3rd centuries although still present in the 4th century. GRB6 was represented by one sherd only, the rim of a large jar (No. 8). This fabric compared closely to samples from the Crambeck kilns. Fabric GRB7, a gritty dark grey ware from a large jar with acute lattice burnish (No. 13) is close to one of the HOSM samples. Three black-burnished ware dishes were present, one a BB1 copy and two BB2 copies (two different fabrics). BB1 and BB2 copies are common at York in ceramic period 3b (AD 225-280) in fabrics similar to these fabrics but from unknown sources.

The characteristics of the Romano-British reduced wares suggested that they came from a variety of local sources which may have included Norton and HOSM as well as other as yet unexcavated kiln groups. The fabrics which were diagnostic and the forms confirm a date range in the late 2nd to mid-3rd centuries. The absence of vessels such as the developed bead and flange bowls and the generally low numbers of dark faced grey fabrics suggest most of the Romano-British wares date to around the mid-3rd century or earlier before these types flourished.

The dating of the context groups

The Romano-British pottery came from the primary fills of groups 1 and 6 (Phase 3a) and 4 and 5 (Phase 3b), undifferentiated fills of groups 3 and 11 (Phase 3a) and a scatter of pits and post-holes. The sherds from probably two reeded-rim bowls from the primary and secondary fills of 1140 Group 4 indicate a date in the early 2nd century for this feature. A single GRA1 everted rim sherd from primary fill 1160 Group 4 is not closely datable but compares well with the neckless everted rim jar forms of this period (Monaghan 1997, type JA). Undiagnostic greyware bodysherds came from the primary fill of 1230.

The pottery from the primary fill of ditch 1149 (Group 1, Phase 3a) included much of a GRA1 dish and sherds from at least two carinated beakers, one with oblique burnished line decoration (Nos 1 and 2), came from primary fill 1249 (Group 1). A date range in the early 3rd century would agree with the parallels suggested for these forms. A basal sherd

from ditch 1251 (Group 5, Phase 3b) joined a dish from ditch 1149 (Group 1). A sherd in a BB1 type fabric also came from the primary fill of ditch 1149 and implies a date after AD 120 when BB1 began to be distributed in the North. One GRA2 sherd from this fill bore a group of incised markings which may represent some sort of post-firing graffito.

One GRA1 bodysherd came from the primary fill of 1211 (Group 3, Phase 3a) and although not closely datable, is likely to predate the mid 3rd century.

A small number of grey ware sherds (GRA1 and GRB1) came from the primary fill ditch 1251 (Group 5, Phase 3b) and these included two sherds of samian, a decorated piece and a stamped basal sherd, probably of late 2nd to mid-3rd-century date, this ditch post-dated pit 1245 which contained a sherd from a jar of Antonine type. In addition a basal sherd from the primary fill of ditch 1251 adjoined a late 2nd to mid 3rd century pie-dish from the primary fill of ditch 1249 (Group 1, Phase 3a).

Some 203 sherds of Romano-British pottery came from Group 6 (Phase 3a), principally from 1010, 1019 and 1022. The total sherd count is inflated by the presence of two vessels in 1010 and 1019 broken in antiquity. These comprised a large GRA3 jar from primary fill 1008 in 1010 (No. 14) and a loop handled jar (No. 6) in primary fill 1023 in 1019. A large part of these two vessels were present. The jar from 1010 had decorative zones of grouped chevron lines and lattice burnish similar to vessels from the Throlam kilns while that from 1023 was similar to vessels from Norton. These vessels typologically predate the large Crambeck jars with countersunk handles common in the later fill of the Dalton Parlours well group (Sumpter 1990, 239) and that from 1010 compares better with the HOSM vessels from the primary fill of that well for which a date in the second half of the 3rd century is suggested (Sumpter 1990, fig. 145, nos 77 and 76). The loop handled vessel from 1023 may be of slightly earlier date (Swan 2002, fig. 17; 219). A similar vessel from the Malton excavations came from phase 4D dated from the Antonine period to the second quarter of the 3rd century and was in a Norton-type fabric (Bidwell and Croom 1997, fig. 25, no. 110). Fragments from wide-mouthed jars with everted rims occurred in the primary fills of this ditch (Nos 9 and 10; 1008 in fabrics GRB4 and GRB5, 1019 in GRB1 and 1022 in GRA1 and GRB4). These lacked the heavy out-turned rims of Norton type 6 and many of the Throlam jars (Corder 1930, fig. 11) but can be paralleled by some of the lighter vessels from Throlam (Corder 1930, fig. 11, nos 27-8). Undecorated wide mouthed jars like these were present in phase 4d

(Antonine-second quarter of the 3rd century at Malton, Bidwell and Croom 1997, figs 25, nos 121-2) and at York the so-called Throlam type bowl (Monaghan 1997, 1007; type BT1) is generally found in period 3b-4b, from around AD 225 onwards but less common in the late 4th century. Close dating of this type evades us but the fabrics used which includes HOSM types, may indicate that this ditch was open and curated rather later than Groups 1, 4 and 5. The presence of a Crambeck rim sherd from a Crambeck type 3 large jar (No. 8) of late 3rd to 4th-century date from the primary fill 1021 of ditch 1022 confirms this dating.

The primary fill (1126) of Group 11 (Phase 3a) contained four GRA1 sherds, probably all from the same vessel, a jar with a short everted rim and burnished oblique lines on the girth (No. 15). This compares with the large jars made at Throlam although the fabric is unlike the fabric typical of that kiln group. A date in the 3rd century would be appropriate but precise dating is not possible.

Four sherds from a BB2TB bead rim dish (No. 16) came from the primary fill of ditch 1371 and dates to the late 2nd to mid-3rd centuries.

Romano-British pottery came from nine pits: 1217, 1229, 1269, 1283, 1285, 1289 and 1297 (Phase 3a) 1245 and 1279 (Phase 2b). Pits 1217 and 1229 contained single sherds from a samian bowl and a Mancetter-Hartshill mortarium respectively. The mortarium belongs to the mid-2nd century. The grits are only slightly worn and the flange edge is scorched as is not uncommon for mortaria from all categories of Romano-British settlements. A samian sherd was found with H1 bodysherds and part of an H1 knobbed lid. Calcite gritted knobbed lids are known from Late Iron Age contexts at Wharram Percy (see Section 5.2) but are also present in Roman contexts both at rural sites such as the late 1st century ditches at Langton (Corder and Kirk 1932, fig. 7, no. 45) and also at urban centres such as York (Monaghan 1997, 340, 3224) and the *vicus* at Malton (Bidwell and Croom 1997 fig. 38, nos 447-8). Calcite-gritted ware lids with knobs were present at Knapton (Corder and Kirk 1932, fig. 30 nos 11-14). These include well finished knobs and lids with perforations interpreted as steam holes (see sherd 1364, Section 5.2). There is therefore no reason to suppose that the handmade bodysherds and lid were not contemporary with the samian sherd belonging to the 2nd century. Pit 1229 also contained handmade H1 and H2 jars with flat-topped and everted rims. The pottery from pit 1245 comprised predominantly H2 and H4 handmade jars with flat-top everted

rims and included a knobbed lid fragment and a loop handle and some H1 bodysherds. A single grey ware sherd (No. 17) from a jar similar to Roxby type A, an Antonine form, suggests a date range similar to that for pits 1217 and 1229. Pit 1269 contained only two undiagnostic GRB1 sherds and pit 1279 contained a BB2 type sherd giving a date after AD 140. The group from pit 1283 contained rather more grey ware sherds including a bead-rim dish of the late 2nd to mid-3rd century (No. 21), a small rather crudely made splayed base (No. 22) and the neck of a narrow necked jar with burnished wavy line decoration (No. 23) is likely to date to the second half of the 3rd century or early 4th century. The handmade vessels are in long lived forms but include a jar in a calcite gritted fabric which includes large mica flakes. At Rudston, Rigby found just such a fabric used to make a handmade jar dated to mid-1st century or earlier (1980, 50, no. 36). Sherds in this fabric were also found in a 2nd-century group (Rigby 1980, 71, no. 211). This pit appears to contain pottery of disparate date ranges and may represent material deposited during some sort of cleaning up of the area in the late 3rd or early 4th centuries. The pottery from pit 1285 was predominantly wheel-thrown, with one H1 scrap. Sherds of fabric GRA2 and GRB5 were present and these included an everted rim and the neck of a narrow-mouthed jar, perhaps from one of the large loop-handled type of vessel. Precise dating is not possible but a 3rd-century date is likely. Pit 1289 contained Romano-British pottery only, namely sherds from two bead rim dishes of late 2nd or mid-3rd-century type (Nos 19 and 20) and a GRA1 body sherd from a closed vessel. An undiagnostic GRB2 sherd came from pit 1297.

Spatial analysis, functional groups and site status

The Romano-British pottery is concentrated in pits 1283 and 1289 and in Group 6 (Phase 3a). Group 3 (Phase 3a) yielded only one sherd but another small concentration came from the enclosures formed by Groups 4 and 5 (Phase 3b). Study of the vessel types distributed across the site did not reveal any distinct patterns relating to function. The greatest variety of vessel types came from Group 6 but this may partly relate to its long life extending to the end of the 3rd century or early 4th century. This later date is also reflected in the smaller amount of handmade ceramics from this feature. The presence of large proportions of vessels in Group 6 ditch could relate to intentional deposits, such as structured deposits. These vessels were both large jars/pitcher type vessels but as only parts of each vessel were recovered they may simply be rubbish deposits.

Table 5.3.1: Quantification of Romano-British Pottery

Phase	Group/ feature	No. of sherds	Weight of sherds
3a	G1	21	379.3
	G3	1	67.8
	G6	202	2371.9
	G11	4	96.3
	1217	1	10.2
	1229	1	136.5
	1269	2	16.2
	1283	18	259.4
	1285	15	154.8
	1289	12	333.7
	1297	3	59.9
Sub-total		**280**	**3886**
3b	G4	19	304.3
	G5	16	266.8
Sub-total		**35**	**571.1**
2b	1245	1	11.1
	1279	1	1.8
Sub-total		**2**	**12.9**
2c	1371	4	126.9
Un-phased	Unstrat	5	57
Total		**326**	**4653.9**

Analysis of the vessel types and wares from the site disclosed a normal pattern for a rural site in North-east Yorkshire. The group is heavily dominated by jars and these were mostly handmade types of native form (Fig. 5.3a). Bowls were scarce though dishes accounted for over 10%. The only other common form was the large jar type, often with looped handles. This latter form undeniably functioned as a water container as is clearly demonstrated by its frequent presence in wells (see at Rudston and Dalton Parlours, Rigby 1980; Sumpter 1990). In terms of the wares reaching the site, a similar picture emerges with an overwhelming proportion of locally handmade vessels, perhaps manufactured nearby, and small amounts of wheel-thrown vessels in Romano-British forms obtained from a variety of sources in North-east Yorkshire, along with small amounts of wares from outside the region such as a Mancetter-Hartshill mortarium and samian table ware.

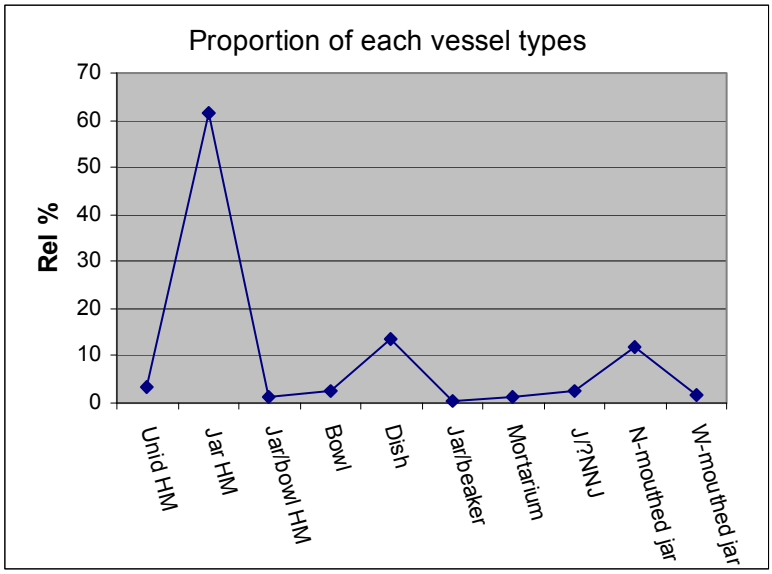

Figure 5.3a: Proportion of Vessel Types

The pattern of exchange indicates almost complete ceramic self sufficiency (Figs 5.3b and 5.3e). The acquisition of any wheel-thrown pottery is of interest and the types selected may disclose preferences among the inhabitants which relate to eating habits and acculturation. The proportion of bowls/dishes is very low compared to patterns on rural sites in the Midlands and the south of Britain. Evans has demonstrated that at the small town of Shiptonthorpe, East Yorkshire, an essentially rural pattern is found (2001b, 29-30) and if the groups which include Romano-British pottery at Reighton are compared to late 2nd century groups at Shiptonthorpe and other rural sites in East Yorkshire, it can be clearly seen that the proportion of bowls and dishes is not defining a small town/rural site divide, except in the case of Hawling Road (Fig. 5.3c). It is noticeable, however, that the narrow-necked jar category is more numerous on the rural sites. This group is predominantly made up of the looped handle large jar category (Throlam, Monaghan 1997, figs 14-15; Norton type 4 and Crambeck type 3). If other town and *vicus* groups are examined, the rural assemblages are not markedly different. In fact Beadlam villa in the early 4th century has more tablewares than the town sites. It is noticeable that the number in the Reighton narrow-mouthed jar group is high when compared with the late groups from different kinds of sites with the exception of the well group from Rudston. This may point to a functional bias in the Reighton assemblage relating to water carrying.

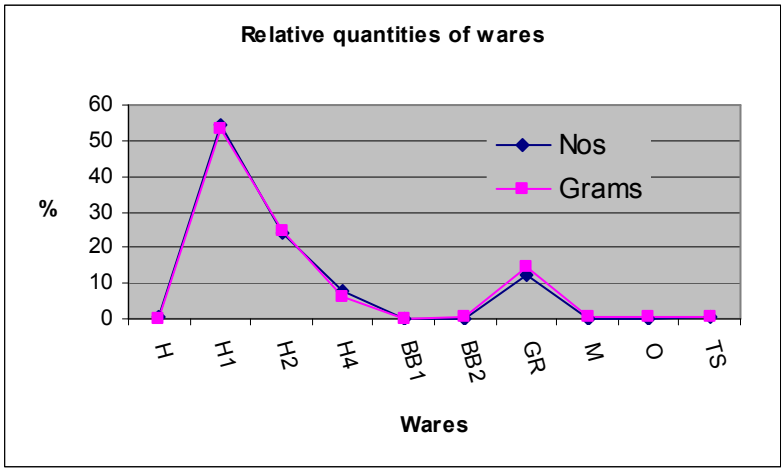

Fig. 5.3b: Quantities of Wares

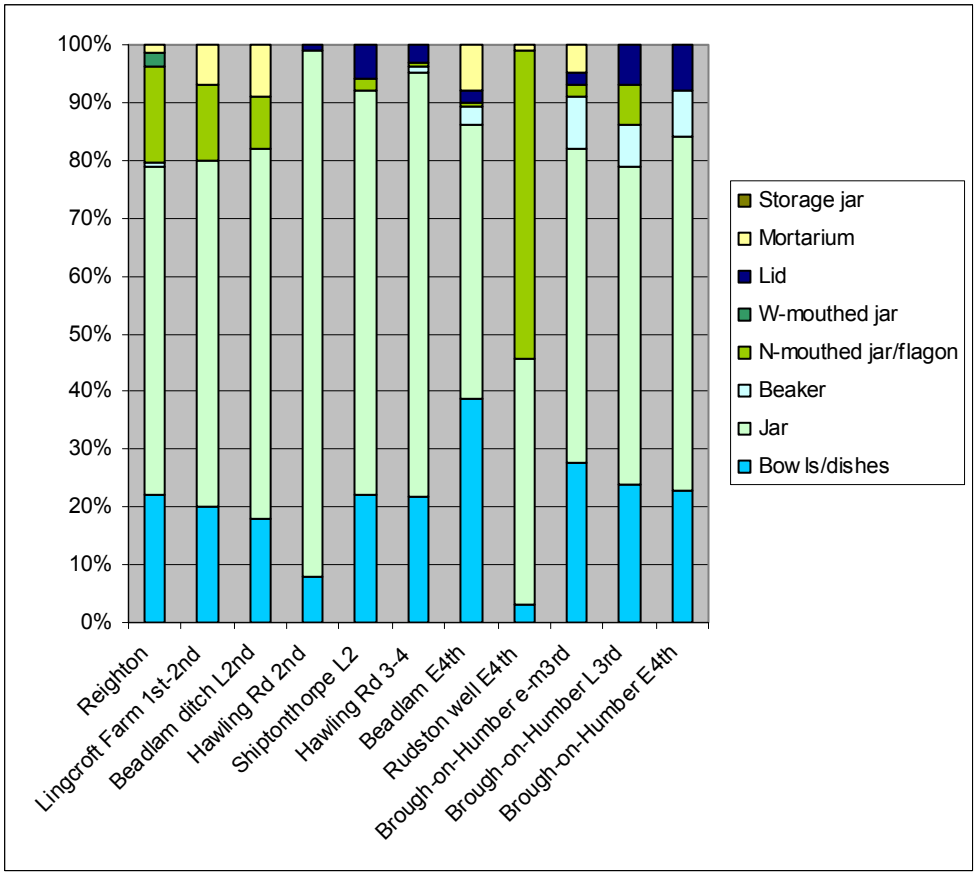

Fig. 5.3c Comparison with Local Sites

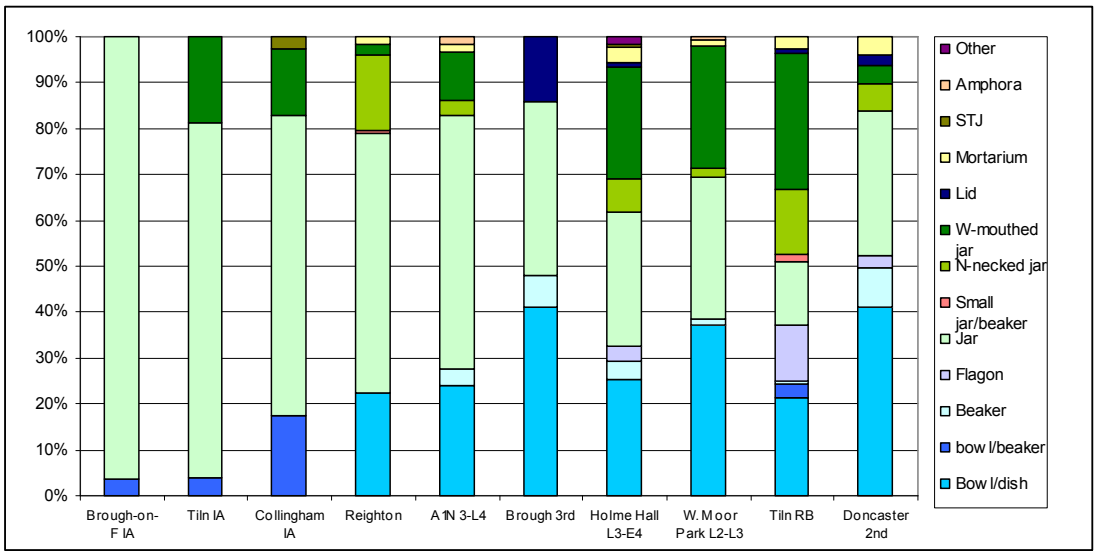

Fig. 5.3d: Comparison with Sites in Nottinghamshire and South Yorkshire

When the Reighton assemblage is compared to rural, town and *vicus* sites of different dates in neighbouring areas (Fig. 5.3d), some significant patterns can be detected. Not unexpectedly, the group is close to a late Iron Age group from Nottinghamshire in terms of the jar: dish/bowl ratio. The group from Collingham belongs to the very end of the pre-Roman Iron Age and included cordoned and carinated bowls as well as storage jars. The group marks the addition of specialised ceramics meeting specific functions to the generalised cooking pot repertoire seen at the PRIA settlement at Brough-on-Fosse and a rural settlement at Tiln, Nottinghamshire. The late 4th-century group from a rural site near New Micklefield (site C4SA on the A1 (M) Darrington to Dishforth in Yorkshire, Leary forthcoming) also compares well with the Reighton group in terms of jar: bowl/dish ratio but has a more diverse assemblage with amphora and beakers represented. It is worth pointing out that Dressel 20 amphora sherds were found during previous excavations at the Willows, Reighton (Darling 2006). The higher wide-mouthed jar numbers at the other South Yorkshire and North Nottinghamshire rural groups at Holme Hall quarry, Stainton (Leary 2005) and West Moor Park, Armthorpe (Leary 2003), both South Yorkshire and Tiln, North Nottinghamshire (Leary 2006) contrast with the Reighton group. Like site C4SA (see above), these groups were more diverse than Reighton, with a wider range of vessel types represented. It is notable that these vessel types included beakers and flagons; vessels needed if Roman drinking customs were going to be followed (Cool 2007). The only North Yorkshire group in this analysis with any significant number of beakers is Beadlam, a villa site, and this site also has a noticeably large number of bowls and dishes compared with the other rural sites. The

only rural site lacking the pitcher type vessels seems to be Hawling Road in the late 2nd century and this site seems to be lacking ceramic diversity even in the 3rd to 4th centuries. Thus the evidence suggests a selective ceramic repertoire was being used on these North-east Yorkshire sites which was in several respects similar to the Late Iron Age groups in Nottinghamshire with the adoption of some components of the Roman ceramic repertoire, such as small numbers of bowls and dishes, but the rejection of others, such as beakers and flagons. The large handled jars may have been used in the place of flagons but unlike flagons are often found in association with wells, indicating they were used to carry water. Beakers of the size found on Roman sites such as York (Monaghan 1997, class K) are not present in any quantity on the rural sites nor did they seem to be part of the repertoire of the East Yorkshire kilns to any degree (Norton, Corder 1930, type 16; Throlam, Hayes and Whitely 1930, 108; Crambeck, Corder 1937, type 12). Instead small and medium sized jars and possibly small bowls may have been used for drinking (Norton, Corder 1930, types 9 and 10; Throlam, Hayes and Whitely 1930, figs 12 and 16; Crambeck, Corder 1937, types 11 and 13). This contrasts with equipment necessary to drink wine in the Roman way. Cool identifies a need for two flagons for the wine and the water, a bucket-like vessel to mix the wine and water and a ladle as well as basins for hand washing and the beakers for drinking (Cool 2007, chapter 15). None of these items is represented at Reighton. The large pitchers being used can be readily paralleled in East Yorkshire (Evans 1995, fig. 5.4; class B) and further south in Lincolnshire and Nottinghamshire on pre-Roman Iron Age sites (Elsdon 1996, fig. 19.6; type 7, Elsdon 1993, B6a; Ramsdale Park) suggesting that while in Nottinghamshire Roman drinking habits were adopted to some extent, in North-east Yorkshire, native customs prevailed.

It has been suggested that the higher numbers of wide-mouthed jars in North Nottinghamshire and Yorkshire in the 3rd to 4th centuries, alongside smaller numbers of bowls and dishes may reflect communal eating customs centred on a large casserole-type dish dipped into by all the diners (Leary forthcoming). At Reighton and the other North and East Yorkshire rural sites for which data was available, this does not seem to have been the case, though some of the handmade jars may have been sufficiently wide mouthed to have functioned in this way. Mortarium sherds are a characteristic of all the Roman sites regardless of character and status, and this is a phenomenon observed elsewhere in Roman Britain (Evans 2001b, 29; 1993, 1-4)

Evans has observed that the rural-urban and rich-poor divides found further south do not present themselves so clearly on northern sites, particularly in this area in the late 3rd to 4th centuries (Evans 2001b, 29; 1993, 112). This study has confirmed his observation and recorded evidence for the rejection of aspects of Roman drinking habits and the retention of native customs alongside the adoption of Roman eating manners to a limited degree. This pattern contrasts with neighbouring regions where native eating customs may have revived in the 3rd to 4th centuries.

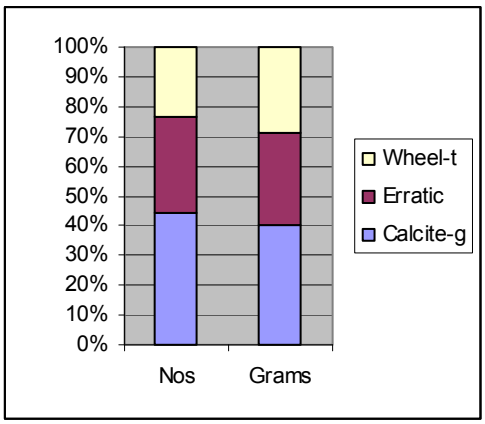

Fig. 5.3e: Proportion of Wares in Contexts with Romano-British Pottery

In terms of fabrics the assemblage is dominated by the handmade wares (71% by weight and 76% by sherd count), particularly the calcite-gritted fabrics (Fig. 5.3e) with the erratic wares being the second common ware group and the Romano-British wares least numerous. An interesting parallel can be found at the rural site at Hawling Road where handmade gritted and calcite-gritted wares account for 74-93% of the groups dating to the 1st to early 3rd centuries but at the small town of Shiptonthorpe, some 3km away, only 6-15% throughout the occupation were handmade wares. Evans mentions similar levels of handmade vessels at North Cave in the 2nd and late 2nd to earlier 3rd centuries (40% and 73% respectively, 1999, 140; Didsbury forthcoming). Evans suggested that this indicates a real economic dislocation which may change in the 2nd century when handmade jars were more common at Shiptonthorpe and wheel-made vessels were more common on rural sites. The Reighton group reveals a similar pattern with the later groups containing greater proportions of wheel-thrown material. In Group 1 some 78% of the pottery was wheel-thrown and dated to the first half of the 3rd century and in pits 1285 and 1289 very little handmade pottery was found but the wheel-thrown vessels gave a date range in the late 2nd to mid 3rd centuries. Similarly nearly 50% the pottery from

Group 6 was wheel-thrown and included some of the latest pottery from the site.

Vessel use and repair

None of the wheel-thrown Romano-British vessels was sooted, contrasting with the handmade jars, and the only burnt vessel was the mortarium, which was scorched along its flange. There was no evidence of repair and only one sherd, perhaps a bowl or dish, had a possible graffito.

Samian

by Felicity C. Wild

The site produced ten sherds of samian ware from four vessels, all Central Gaulish and dating to the second half of the 2nd century AD. Two were dishes and two bowls, one decorated. In the description of the decorated sherd, the figure type is quoted from Oswald 1936-37 (O.), the decorative motifs from Rogers 1974 and parallels from Stanfield and Simpson 1958 (S&S).

From Ditch G5:

Form 37: Central Gaulish, showing panel decoration with a medallion containing a slightly reduced version of the Triton (O.19). The ovolo (Rogers B160) and large-beaded borders are typical of the work of Do(v)eccus i of Lezoux, who used the Triton (S&S, pl. 148, 26). The circle in the corner of the panel is probably his beaded circle (Rogers E58). The circle and medallion with Triton occur together on a bowl in Do(v)eccus' style with the rim stamp of Moxius (S&S, pl. 152, 1). *c.* AD 165-200. (1250). (1250, Fig. 24, No. 24)

Form 31R: Central Gaulish. Six joining fragments of base, with the stamp [CA]RVSSA of Carussa of Lezoux. A closely similar stamp, also with a dot in the V, occurs at New Fresh Wharf, London (Dickinson 1986, 188, fig. 3, no. 28). The Reighton stamp is clearly by the same potter, though probably not from the same die, as the letter spacing appears to be different and there is no dot after the R. Carussa made the later 2nd-century forms 38, 79 and 31R, and his work has been recorded at Hadrian's Wall and at the hinterland forts. *c.* AD 160-190. (1250, Fig. 24, No. 25)

Table 5.3.2: Quantification of Vessel Types by Context using rim percentage values

Fabric group	Handmade			Wheel-thrown						
Vessel type		Jar	Jar/Bowl	Bowl	Dish	Jar	Jar/ Beaker	Mortarium	N-necked jar	WMJ
Rim %	42	744	15	31	165	31	4	13	146	21
Unstrat		60								
1008									50	6
1009		6								
1020		63.5			12				5	7
1021		78							10	8
1023									66	
1033		16.5								
1045		5								
1059		3.5								
1076						8				
1126									15	
1141		134		24						
1146							4			
1148		34.5								
1159						5				
1174		25								
1185		13								
1189		61								
1216				7						
1228		13.5						13		
1232		5								
1236	9									
1244		80				8				
1248		32			35					
1250	19.5									
1252		10								
1271		5								
1280		5								
1282	6				15					
1284						10				
1288					74					
1306		21								
1324		54.5	15							
1330		5								
1336	7.5	7.5								
1368		5								
1370					29					

Table 5.3.3: Wares and Fabrics by Context and Weight

Fabric group	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	Total
Ware	H	H	H	H	H1	H1	H1	H2	H2	H4	H4	H4	BB1	BB2	BB2	BB2	GR	GR	GR	GR	GR	GR	GR	GR	GR	GR	GR	M	O	TS	
Fabric	H	H ?	H type	U/ID	H1	H1 type	H1?	H2	H2 type	H4	H4 OT	H4 type	BBT1	BB2T?	BB2TA	BB2TB	GRA1	GRA1?	GRA2	GRA3	GRB1	GRB2	GRB3	GRB4	GRB5	GRB6	GRB7	M14	OAB1	TS	
1					510			30		74			5				324		11	12			27								993
3																	68														68
4					2448	103		1397		281			6				76		79		143										4533
5					563	19	6	768									156				6									105	1623
6					1827	11		845	78	3							102	57		1278	29		491	309	22	19	32		19	14	5136
7					101			15																							116
8		2			9			20																							31
9									2																						2
11					27												96														123
12	1				339			2																							342
13					2286				101																						2387
14								10																							10
18					1692																										1692
20										34																					34
21								29		1																					30
23					1203	37				56	44	19																			1359
1002								8		4																					12
1034					4			28	361																						393
1046								44		15																					59
1217			3		104																									10	117
1221						6		124																							130
1225					8																										8
1229			16	6	96			36	14																			137			305
1245					310			1188		500							11														2009
1265								28																							28
1269																					16										16
1272					27	18		65		11																					121
1275					20			53																							73
1279					45			7						2																	54
1281					9			635	20	51																					715
1283																	157					102									259
1285					1														105						46				3		156
1289															20		314														334
1297	1				45	42		625		12												10							50		785
1307								135																							135
1318	5				106				28																						139
1329					2816	38		95		109																					3058
1331					107			94																							201
1339										7																					7
1351					10					24																					34
1355										34																					34
1369										46																					46
1371																127															127
1395										200																					200
us					214			79		206							55												2		556
Total	**7**	**2**	**19**	**6**	**14927**	**274**	**6**	**6360**	**604**	**1668**	**44**	**19**	**11**	**2**	**20**	**127**	**1358**	**57**	**196**	**1290**	**195**	**112**	**518**	**309**	**69**	**19**	**32**	**137**	**74**	**129**	**28590**

Table 5.3.4: Quantification of wares and fabrics by sherd count

Fabric group	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	Total
Ware	H	H	H	H	H1	H1	H1	H2	H2	H4	H4	H4	BB1	BB2	BB2	BB2	GR	GR	GR	GR	GR	GR	GR	GR	GR	GR	GR	M	O	TS	
Fabric	H	H ?	H type	U/ID	H1	H1 type	H1(?)	H2	H2 type	H4	H4 OT	H4 type	BBT1	BB2T?	BB2TA	BB2TB	GRA1	GRA1?	GRA2	GRA3	GRB1	GRB2	GRB3	GRB4	GRB5	GRB6	GRB7	M14	OAB1	TS	
1					66			4		1			1				14		2	1			3								92
3																	1														1
4					190	3		197		34			1				5		4		9										443
5					85	1	2	44									9				1									6	148
6					174	2		67	7	1							10	4		87	2		69	20	3	2	1		1	3	453
7					8			2																							10
8		2			3			2																							7
9									1																						1
11					2												4														6
12	5				54			1																							60
13					234				5																						239
14								1																							1
18					221																										221
20										2																					2
21								2		2																					4
23					64	7				9	9	1																			90
1002								2		3																					5
1034					1			8	33																						42
1046								1		1																					2
1217			1		6																									1	8
1221						3		16																							19
1225					1																										1
1229			2	1	7			4	1																			1			16
1245					33			58		28							1														120
1265								23																							23
1269																					2										2
1272					6	2		5		6																					19
1275					4			6																							10
1279					10			1						1																	12
1281					3			38	2	8																					51
1283																	14					4									18
1285					1														11						2				2		16
1289															1		11														12
1297	3				17	1		46		1												1							2		71
1307								6																							6
1318	1				10				1																						12
1329					98	4		4		23																					129
1331					9			2																							11
1339										1																					1
1351					2					1																					3
1355										2																					2
1369										2																					2
1371																4															4
1395										27																					27
us					9			4		26							4												1		44
Total	**9**	**2**	**3**	**1**	**1318**	**23**	**2**	**544**	**50**	**178**	**9**	**1**	**2**	**1**	**1**	**4**	**73**	**4**	**17**	**88**	**14**	**5**	**72**	**20**	**5**	**2**	**1**	**1**	**6**	**10**	**2466**

5.4 A Staxton-Potter-Brompton type ware jar

by Chris Cumberpatch

A chance find in Area F2 (see Section 4.1), some distance from the main area of excavation, was identified as a Staxton-Potter Brompton ware storage jar or amphora, apparently set upright within a pit. The majority of the rim of the vessel had been removed, apparently by an earth-moving machine, but one rim sherd and much of the body and base were present, although broken (Plates 23 and 24).

Description

The storage jar was decorated with applied and thumbed strips running down the vessel and around the shoulder. The single rim sherd had thumb impressions around the outer edge. Such thumbed decoration appears to have been standard on cooking pots (e.g. Earnshaw and Watkins 1984, fig. 8, no. 16; Didsbury and Watkins 1992, figs 58, nos 256, 257 and 264) but the thumbed strips on the body appear to have been reserved for the larger vessels and curfews (as noted below).

It was not possible to determine the maximum girth of the pot or its height, but the base diameter, (*c.*40cm) and the curvature of the sherds imply that it was a vessel of some considerable size.

There was no trace of glaze and the fabric of the vessel was sandy and friable to the touch. Internally the surface was flaky, with a laminated fracture and tended to break away in flattish fragments when touched.

The vessel appeared to have been handmade rather than wheel-thrown, with the distinctive laminated fracture pattern perhaps suggesting that it was slab built rather than coil-made. The external surface was smoothed but not decorated, apart from the thumbed strips and thumb impressed rim. A body sherd from the vessel was the subject of petrological and chemical analysis (Sample number V4053; Fabric 8) and details of the composition of the clay body and its affinities can be found in Section 5.6.

Dating and parallels

Staxton-Potter Brompton cooking pots and pancheons have been found on sites in Beverley, Bridlington and Hull (Earnshaw and Watkins 1984; Watkins 1987, 109-110, fig. 70; Watkins 1991, 87; Didsbury and Watkins 1992), where they have been dated to the early or mid-13th to early 14th centuries. At the South Manor area at Wharram Percy, (which lies only fifteen miles from Staxton), these wares range in date from the 12th to the 14th centuries and may even continue into the 15th (Slowikowski 2000, 74). On the North Manor area Staxton wares formed nearly 73% of the total assemblage and were concentrated in ceramic group 4, dating to the period between 1150 and 1250 (Slowikowski 2004, 183 and 186-8, fig. 115). The group included vessels with applied and thumbed strips (not illustrated) and at least two vessels with thumb impressed rims (Slowikowski 2004, fig.115, nos 22 and 23), though these appeared to be smaller in size than the Reighton vessel. A curfew from Wharram Percy, published by Le Patourel (1979, fig. 34, no. 23) bore applied and thumbed strips, but this motif was described as 'occasional' in the general description of the ware type (1979, 83).

Staxton-type wares were the commonest medieval wares at Cowlam (Hayfield 1988, 95). The assemblage from this site, dated to the 12th to 14th centuries and possibly into the 15th century, included at least one vessel decorated with thumbed strips (Hayfield 1988, fig 8, no. 6), but this is a dish rather than a storage jar.

Although a number of excavations were carried out at Staxton and at Potter Brompton in the 1940s and 1950s, publication of these were for many years entirely unsatisfactory. A recent review of the evidence by Colin Hayfield (1992) includes a number of vessels (listed as 'minor forms') which include applied and thumb impressed strips (1992, fig. 5, nos 8, 9 and 10), though on vessels which are either curfews or have distinctive 'lid-seated' style rims, very different to that of the Reighton vessel.

The Reighton vessel would appear to be slightly unusual in the regional context, not because of its presence on the site, but in terms of its size and isolated location. Only further work in the area will establish whether the pit and the pot represent part of a medieval settlement in the area, or whether the vessel was placed in an isolated pit for some reason or reasons that cannot now be determined. Other medieval pottery from the site (discussed in Section 5.5) was not associated with the Staxton-Potter Brompton vessel and

appears to have originated from an entirely different group of contexts, interpreted as quarry pits (Section 4.7).

5.5 Other Medieval pottery

by Chris Cumberpatch

A small group of later medieval pottery was recovered from two contexts (1079 and 1088). The details are summarised in Table 5.5.1.

Table 5.5.1: Medieval pottery

Cxt	Fabric	No.	Wt.	ENV	Part	Form	Decoration	Date range	Notes
1079	Humberware type	2	9	1	BS	Hollow ware	U/Dec	C14th - C15th	Abraded int. and ext.
1079	Sandy ware	2	1	2	BS	U/ID	U/Dec	Medieval	Two small abraded fragments
1088	Humberware	1	32	1	BS	Hollow ware	U/Dec	C14th - C15th	Abraded int. and ext.
1088	Humberware	1	18	1	BS	Hollow ware	U/Dec	C14th - C15th	Abraded int. and ext.
1088	Humberware	1	9	1	BS	Hollow ware	Green glaze ext	C14th - C15th	Reduced throughout

Both contexts were the upper fills of large quarry pits (1083 and 1093) which appear to be otherwise undated. Whether they are of medieval date or earlier with later medieval material forming an intrusive element in the upper fills is unclear.

5.6 Characterisation Studies of Iron Age and Medieval Pottery

by Alan Vince

A series of samples of Iron Age pottery from Reighton Bypass were selected by Chris Cumberpatch and submitted to the author for characterisation. In addition, a single sherd from a medieval storage jar found set in a pit was submitted.

The Iron Age samples were assigned to four fabric groups but the thin section results indicate that they should be assigned to at least six fabrics, and therefore a series of Petro-Fabric groups were created by the author and correlated with the Cumberpatch Fabrics in Table 5.6.1.

Table 5.6.1: Petro-Fabric groups

TSNO	Context	cname	Action	locality	Cumberpatch Fabric	Petro-Fabric
V4044	1244	BLSF	TS;ICPS	Reighton	H2	FAB 3
V4045	1189	BLSF	TS;ICPS	Reighton	H1	FAB 3
V4046	1282	IAERR	TS;ICPS	Reighton	H2	FAB 5
V4047	1020	IARQ	TS;ICPS	Reighton	H2?	FAB 6
V4048	1141	IACALC	TS;ICPS	Reighton	H1	FAB 2
V4049	1075	IACALC	TS;ICPS	Reighton	H1	FAB 1
V4050	1324	IACALC	TS;ICPS	Reighton	H1	FAB 1
V4051	1336	IACALC	TS;ICPS	Reighton	H4	FAB 1
V4052	1159	IACALC	TS;ICPS	Reighton	H2	FAB 4
V4053		STAX	TS;ICPS	Reighton	BURIED IN PIT	FAB 8
V4054	1324	IAERR	TS;ICPS	Reighton	H2	FAB 7

Thin Section Analysis

The thin sections were prepared by Steve Caldwell, University of Manchester, and stained using Dickson's method (Dickson 1965). The staining distinguishes between non-ferroan calcite (pink to red stain); ferroan calcite (blue stain) and dolomite (unstained).

Fabric 1: Calcite Tempered

Three samples of this fabric were thin sectioned (V4049, V4050 and V4051). They contain the following inclusion types:

- Calcite. Abundant angular fragments of sparry calcite. These have a slight pink stain;
- Mudstone. Moderate rounded fragments up to 1.0mm across, of similar colour and texture to the groundmass but with clear bedding laminae;

- Chalk. Sparse rounded fragments up to 1.5mm across with sparry calcite veins. The chalk has a slightly deeper stain than the sparry calcite;
- Rounded Quartz. Sparse rounded grains up to 0.5mm across, and;
- Muscovite. Moderate laths c. 0.2mm long.

The groundmass consists of optically anisotropic baked clay minerals with sparse to moderate dark brown grains up to 0.1mm across.

Fabric 2: Calcite and Fine Quartz

One sample of this fabric was thin sectioned (V4048). The following inclusion types were noted:

- Calcite. As in Fabric 1;
- Quartz. Moderate sub-angular grains mainly up to 0.3mm across but ranging up to 1.0mm across;
- Plagioclase Feldspar. Sparse sub-angular grains up to 0.3mm across, and;
- Chalk. Sparse rounded, light brown stained grains up to 1.5mm across.

The groundmass is similar to that of Fabric 1.

Fabric 3: Quartz Sand and Sparse Calcite

Two samples of this fabric were thin sectioned (V4044 and V4045). The following inclusion types were noted:

- Calcite. Sparse angular sparry calcite fragments up to 1.5mm across;
- Quartz. Abundant sub-angular and sparse rounded quartz grains up to 0.5mm across;
- Chert. A single rounded fragment of chert or altered rhyolite 0.7mm across, and;
- Muscovite. Moderate laths up to 0.2mm long.

The groundmass consists of dark brown, optically anisotropic, baked clay minerals and abundant sub-angular quartz grains and sparse muscovite laths up to 0.1mm long.

Fabric 4: Angular Quartz Sand and Sparse Calcite

A single sample of this fabric was thin sectioned (V4052). The following inclusion types were noted:

- Quartz. Moderate very angular fragments of monocrystalline unstrained quartz between 0.5mm and 2.0mm across;
- Sandstone. A single angular fragment of sandstone with ill-sorted angular grains between 0.2mm and 0.5mm across and a dark brown to opaque cement, and;
- Calcite. Sparse angular fragments of sparry calcite, as in Fabrics 1, 2 and 3.

The groundmass is similar to that of Fabrics 1 and 2.

Fabric 5: Biotite Granite and Fine Quartz Sand

A single sample of this fabric was thin sectioned (V4046). The following inclusion types were noted:

- Biotite Granite. Sparse fragments of igneous rock up to 2.0mm across composed of quartz, plagioclase feldspar and biotite, together with fragments of these individual minerals. The biotite is mostly brown in plane polarised light but occasional blue-green patches are present;
- Quartz. Moderate fragments of angular quartz up to 1.5mm across. Most have at least one straight edge, indicating that they are probably overgrown detrital grains;
- Sandstone. Sparse fragments of coarse-grained sandstone containing quartz grains ranging from 0.3mm to 1.5mm across. Pores between grains are filled with brown clay, and;
- Muscovite. Moderate laths up to 0.2mm long.

The groundmass consists of optically anisotropic baked clay minerals, sparse angular quartz, moderate dark brown grains and sparse biotite laths up to 0.1mm across.

Fabric 6: Sparse Rounded Quartz sand and Fine Quartz Sand

A single sample of this fabric was thin sectioned (V4047). The following inclusion types

were noted:

- Quartz. Moderate sub-angular and rounded grains ranging from 0.3mm to 1.5mm across. The sub-angular fragments include some with at least one flat face and the rounded fragments include well-rounded grains of probable Lower Cretaceous origin;
- Microcline feldspar. A single rounded fragment c. 1.0mm long;
- Chert? A single rounded brown-stained fragment 1.5mm across. The fragment contains sponge spicules and abundant amorphous brown inclusions c. 0.05mm across, and;
- Clay/iron concretion. A single rounded dark brown clay/iron concretion containing sparse muscovite laths and quartz grains up to 0.2mm long.

The groundmass consists of optically anisotropic baked clay minerals, abundant angular quartz, moderate muscovite laths and sparse plagioclase quartz, all up to 0.1mm across.

Fabric 7: Basic Igneous Rock Fragments and Fine Quartz Sand

A single sample of this fabric was thin sectioned (V4054). The following inclusion types were noted:

- Basic Igneous rock. Moderate angular fragments of rock up to 2.0mm across consisting of euhedral crystals of olivine, plagioclase feldspar and opaque grains up to 0.2mm across in a glassy groundmass;
- Quartz. Abundant sub-angular fragments, mostly up to 0.3mm across;
- Conglomerate. Moderate angular fragments of rock up to 4.0mm across consisting of rounded and angular quartz grains, biotite laths, plagioclase feldspar, chert, phyllite, and opaque grains with a dark brown clay cement;
- Clay/iron. Sparse rounded dark brown inclusionless grains up to 0.3mm across, and;
- Muscovite. Sparse laths up to 0.2mm long.

The groundmass consists of optically anisotropic baked clay minerals, sparse angular quartz, muscovite laths and dark brown grains up to 0.1mm across.

Fabric 8: Staxton ware

A single sample of this fabric was thin sectioned (V4053). The following inclusion types were noted:

- Quartz. Abundant grains up to 0.3mm across. The grains include overgrown grains, well-rounded grains of probable Lower Cretaceous origin, some of which have dark brown to opaque veins;
- Mudstone. Sparse rounded pellets up to 2.0mm across, similar in texture and colour to the groundmass with clear bedding laminae;
- Clay/iron. Sparse rounded dark brown inclusionless grains up to 0.3mm across, and;
- Chert. Sparse rounded grains up to 0.3mm across.

The groundmass consists of brown, optically anisotropic baked clay minerals with sparse dark brown grains up to 0.1mm across.

Interpretation

The groundmass seen in Fabrics 1, 2, 4 and 8 is typical of Upper Jurassic clays from the Vale of Pickering, as is the presence of mudstone fragments (Fabrics 1 and 8). Similarly, the mixed quartzose sand (mostly quartz, chert and clay/iron grains) found in fabrics 3 and 8, and in smaller quantities in other fabrics, is matched by samples of blown sand from West Heslerton, and is derived from Upper Jurassic and Lower Cretaceous sands. The calcite and chalk fragments found in Fabrics 1, 2, 3, and 4 are also paralleled in superficial deposits in the Vale of Pickering, being derived from calcite veins occurring in the Chalk. No similar deposits occur to the east or south of the Wolds but similar geological conditions might be expected close to the base of the Chalk scarp on the west and south sides of the Wolds.

Fabrics 5 and 7 have similar groundmasses which are slightly more silty than those of the Upper Jurassic-derived clays, but are still much less silty that the Quaternary lacustrine and estuarine clays of East Yorkshire. They are probably boulder clays composed of material of Jurassic age (the lack of glauconite and flint might indicate a source north of the Wolds, but this is by no means certain). The principal inclusion types in both fabrics are likely to have been prepared by fire-cracking erratic rocks.

Fabric 3 has a distinctive groundmass, which might be a lacustrine or estuarine clay of Quaternary origin, and of local East Yorkshire origin, but could also be of Tertiary origin and non-local, for example East Anglia or the Thames basin. The quartzose sand is probably derived from lower Cretaceous or later rocks.

Chemical Analysis

Subsamples of each sample were taken for chemical analysis. The surfaces of the subsample were mechanically removed and the resulting block was crushed to a fine powder and submitted to Royal Holloway College, London, where it was analysed using Inductively-Coupled Plasma Spectroscopy (ICP-AES). A range of major elements were measured (expressed as percent oxides, Table 5.6.5) together with a range of trace elements, expressed as parts per million (Table 5.6.6). Silica was not measured directly but estimated by subtracting the total measured oxides from 100%. Thus, the estimate will also include organic matter and any other unmeasured elements.

Iron Age

Variation within the Reighton Data

The ICPS data were normalised to aluminium to take account of the diluting effect of quartz and calcite. The transformed data were then examined using Factor Analysis. Five significant factors were found. In the first, the main contributory elements were the Rare Earth elements (dysprosium, europium, samarium, yttrium, neodymium, lanthanum, ytterbium, and cerium), together with zinc, manganese, strontium and scandium. The second factor scores mainly depend on cobalt, copper, nickel and calcium values. The third factor scores mainly depend on chromium, scandium, magnesium, and lead together with a negative contribution from iron. Factor 4 scores depend mainly on titanium and iron values and a negative contribution from phosphorous and Factor 5 scores depend on potassium, sodium and barium scores and a negative contribution from vanadium.

Since Factors 1, 2 and 4 depend to some extent on mobile elements (strontium, calcite and phosphorous) the analysis was repeated excluding these elements. The rare earth elements were also omitted. In this second analysis, four factors were found. Factor 1 scores depend on copper, nickel, zinc, cobalt and manganese. Factor 2 scores depend on scandium,

chromium, magnesium and a negative contribution from iron. Factor 3 scores depend on sodium, barium and a negative contribution from vanadium, while Factor 4 scores depend on titanium and iron.

Factor 1 scores do not distinguish any of the fabrics, while all the Iron Age samples have similar Factor 2 scores with Fabric 8 having a lower (negative) score. Factor 3 distinguishes Fabric 4 (a stronger negative score) while Factor 4 distinguishes Fabrics 6 and 7 from the remainder (higher scores). None of the samples shows much stronger similarity to their neighbours than others.

Comparison with other Calcite-tempered wares

The Reighton calcite-tempered wares were then compared with analyses from a range of calcite-tempered wares from other sites in Yorkshire. These samples differ in date, in post-burial alteration and, in some cases, in their petrological characteristics (Table 5.6.2). Factor analysis of this dataset revealed four factors of which the first and second did not distinguish any of the sample groups, though within the single large cluster those samples with a quartz sand temper and sparse calcite have lower F2 scores than the remainder (West Heslerton and West Lilling BLSF) while the equivalent fabric from Reighton does not (Fabric 3).

Table 5.6.2: Comparison with Other Calcite Tempered Wares

locality	Description	Grand Total
Elloughton	Late Roman	3
Ferrybridge	Probably Iron Age	2
Melton	Probably Iron Age	8
Scorton	Late Roman or Anglo-Saxon	2
West Heslerton	Bronze Age (6 samples); Late Roman (50 samples with abundant calcite and 11 with sparse calcite); early Anglo-Saxon (9 samples)	76
West Lilling	Late Roman (6 with abundant calcite, 6 with sparse calcite)	12
Grand Total		**103**

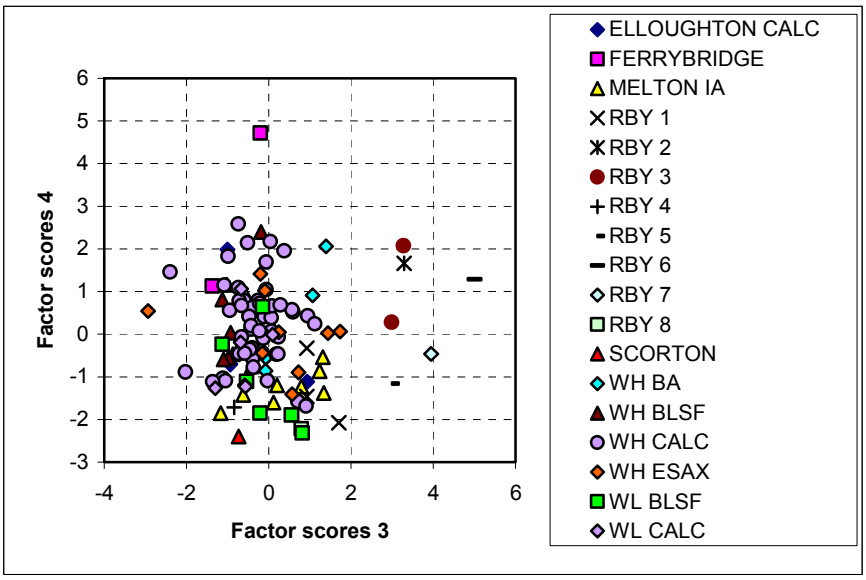

Fig: 5.6a: Comparison with Other Calcite Tempered Wares

A plot of the third against the fourth factors (Fig. 5.6a) distinguishes several of the Reighton samples from the remainder (Fabrics 2, 3, 5, 6 and 7) while within the single large cluster the Reighton Fabric 1 and 4 samples have similar F4 scores to the Melton Iron Age samples. The Fabric 8 (Staxton ware) sample plots with the calcite-tempered vessels, having a similar composition to one of the West Lilling BLSF samples.

Comparison with Silty Micaceous Fabrics

Fabric 6 contains rounded quartz sand of a type which occurs throughout eastern England, from the Yorkshire Wolds southwards, and has a silty, micaceous groundmass which is also widely paralleled. To establish the likely source, the Reighton sample was compared with material with similar groundmasses from East Anglia and Yorkshire (Table 5.6.3). Factor analysis of this data found two significant factors. Factor 1 distinguishes East Anglian from Yorkshire wares while Factor 2 distinguishes wares from the Vale of York and Humber wetlands west of the Wolds from those made in Beverley and the Vale of Pickering (Staxton and Reighton Fabric 8). Fabric 6 plots within the Beverley group and this supports an East Yorkshire clay-land origin for the fabric.

Table 5.6.3: Fabric Comparison

locality	Beverley	GSS	IPS	Melton 1	Melton FCLAY	RBY 6	RBY 8	Staxton	West Cowick HUM	York HUM	Total
Barton-upon-Humber			1								1
Doncaster		1									1
Hart		12									12
Melton				3	12						15
Newcastle-upon-Tyne		2									2
Orby		3									3
Reighton						1	1				2
Staxton								6			6
Wawne	9										9
West Cowick									8		8
York			1							10	11
Total	9	18	2	3	12	1	1	6	8	10	70

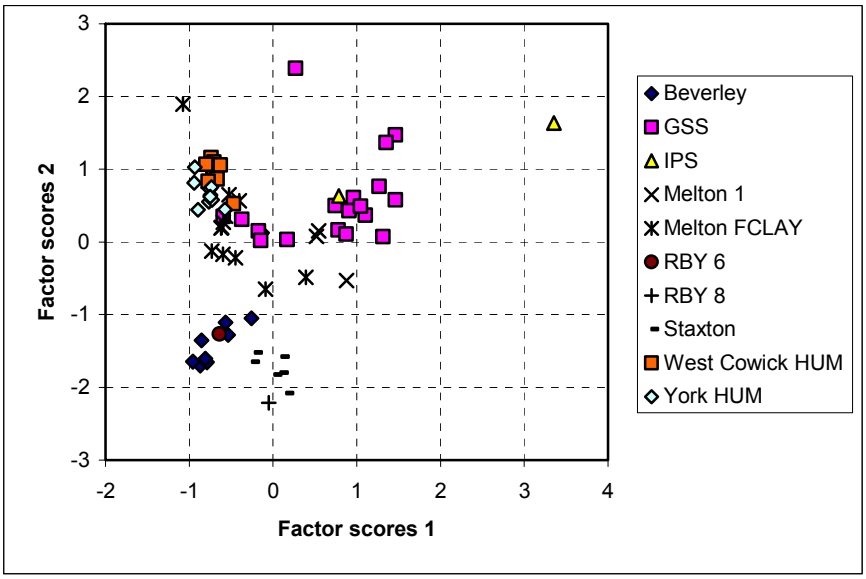

Fig. 5.6b: Fabric Comparisons

Staxton Ware

The ICPS data from Fabric 8, Staxton ware were compared with various Late Saxon and medieval handmade wares from Yorkshire, Lincolnshire and East Anglia (Table 5.6.4). Factor analysis of the ICPS data (excluding the same elements as above) revealed two factors and a plot of F1 against F2 (Fig. 5.6b) indicates that the F1 scores distinguish the two East Anglian wares from the remainder, while the F2 scores separate the various Staxton-type groups. Samples from a waster dump at Staxton, excavated in 1998 by On-

Site Archaeology Ltd are distinguished by a high F2 score while samples from Wawne, have an identical chemical signature and petrological composition to wares known to have been made at Beverley. The samples from the consumer sites at Hartlepool and Scarborough and the Reighton sample all have intermediate F2 scores.

Table 5.6.4: Staxton Ware Comparison

locality	BEVERLEY STAXT	STAX	STAXT	THET	THETG	THETT	Grand Total
Barton-upon-Humber						1	1
Doncaster						1	1
Grimston					4		4
Hartlepool			6				6
Scarborough			1				1
Selby					1		1
Staxton		6					6
Thetford				2			2
Wawne	5						5
Grand Total	5	6	7	2	5	2	54

Key: STAX = Staxton ware; STAXT = Staxton-type ware; THET = Thetford ware from Thetford; THETG = Grimston Thetford-type ware; THETT = Thetford-type wares.

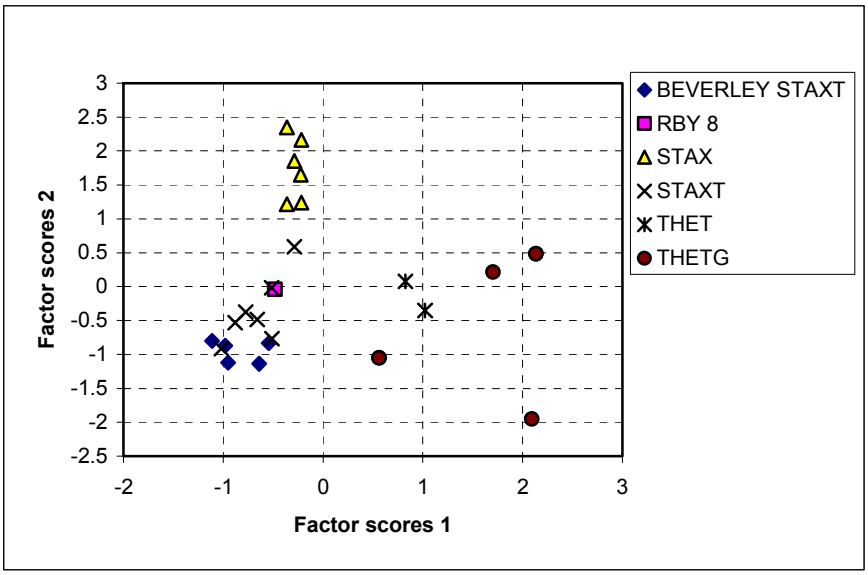

Figure 5.6c: Staxton Ware Comparison

Conclusions

The Iron Age samples can be grouped into three groups on the basis of their groundmass characteristics and inclusions. Fabrics 1, 2 and 4 are almost certainly from the Vale of

Pickering, as probably is Fabric 3, and the lack of glauconite suggests that they were not made from the Speeton Clay which outcrops mainly at the south-eastern corner of the vale and points towards a source along the foot of the chalk scarp from the middle of the vale westwards.

Fabrics of this source were produced in the Vale of Pickering from the Bronze Age onwards and continued to be made through the Iron Age and Roman periods and into the early Anglo-Saxon period (Freestone and Humphrey 1992; Freestone and Middleton 1991; Wardle 1991). Fabric 4 is paralleled at the Roman fort at Lease Rigg, North Yorkshire, where it was either used in the late 1st to early 2nd centuries or may be residual from an earlier Iron Age settlement (Vince forthcoming). Fabric 3 is similar to a late Roman fabric found at West Heslerton and York which appears to have been produced alongside the standard Calcite tempered ware (West Heslerton BLSF, Vince in Darling and Precious forthcoming). Since the raw materials occur widely in the Vale, there is no reason why the fabric should not have also been produced earlier. The similarity of the chemical composition of Reighton Fabric 1 to Iron Age samples from Melton, East Yorkshire, indicates the likelihood that a single centre produced both wares while the lack of glauconite probably indicates a source towards the centre to western end of the Vale of Pickering. The chemical and petrological differences between the other Reighton calcite-tempered wares (Fabrics 2 and 3) and the remainder, suggests that they may be from different centres.

The two fabrics with coarse, extremely angular rock fragments (Fabrics 5 and 7) are examples of the Erratic-temper wares which occur in Yorkshire, and more widely in northern England, from the Bronze Age to the Iron Age (Freestone and Humphrey 1992; Freestone and Middleton 1991; Wardle 1991). This tradition too, probably continued into the Roman period, though it probably did not survive past the end of the 1st century AD. In the two Reighton examples it is clear that the interpretation put forward by Wardle and others is correct, that the inclusions were produced from rocks which were deliberately selected for their exotic crystalline appearance which were then shattered, presumably by fire-cracking, and then used as temper. Some of the inclusions in both thin sections have extreme angularity, with no sign at all of mechanical weathering. This angularity distinguishes them from erratics found naturally in the Yorkshire tills, as does the limited range of lithologies.

Fabric 6 is petrologically quite different from the remaining Iron Age samples. The rounded quartz sand is found in East Yorkshire, as could be the silty, micaceous groundmass. It is therefore likely that this vessel was produced using a lacustrine or estuarine clay from the East Yorkshire clay-lands. In much of those clay-lands however, the main Iron Age pottery fabric used is Erratic Tempered ware, and no close local parallels are known to the author. Nevertheless, the chemical composition suggests an East Yorkshire clay-lands origin rather than a more exotic source.

Finally, Fabric 8 is identified from its petrology as being a Staxton ware, but is more similar to samples of Staxton-type ware from Hartlepool and Scarborough than to waste from Staxton itself. Only one waste dump, from an industry which spread over two adjoining villages (Potter Brompton and Staxton) has been sampled and it is possible that the lack of identity between the Reighton and Staxton ICPS analyses indicates that Potter Brompton was the source of the Reighton piece, and perhaps those from Hartlepool and Scarborough.

Table 5.6.5: Petrological Data Table 1

TSNO	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO
V4044	11.91	3.33	0.71	3.87	0.55	1.7	0.45	1.25	0.024
V4045	11.7	2.47	0.98	15.94	0.46	1.37	0.5	0.27	0.03
V4046	16.11	4.2	0.84	1.31	0.67	1.7	0.6	1.19	0.047
V4047	12.8	4.32	0.86	1.22	0.87	1.64	0.62	0.4	0.022
V4048	13.79	3.13	1.01	6.04	0.55	1.94	0.42	1.58	0.028
V4049	16.63	4.78	1.16	10.83	0.3	1.66	0.7	0.55	0.023
V4050	12.74	2.68	1.05	20.9	0.27	1.09	0.44	0.74	0.069
V4051	12.72	3.3	0.94	22.79	0.2	1.43	0.5	0.54	0.071
V4052	16.07	3.98	0.97	1.65	0.19	1.66	0.6	1.32	0.01
V4053	15.23	4.99	0.69	0.64	0.24	1.61	0.63	0.11	0.015
V4054	18.92	5.14	1.64	2.11	0.94	1.72	1	0.57	0.041

Table 5.6.6: Petrological Data Table 2

TSNO	Ba	Cr	Cu	Li	Ni	Sc	Sr	V	Y	Zr*	La	Ce	Nd	Sm	Eu	Dy	Yb	Pb	Zn	Co
V4044	585	64	21	59	35	9	329	77	12	35	29	62	29	5	1	2	2	16	71	8
V4045	396	91	19	70	33	11	730	68	23	53	36	75	38	7	1	4	2	20	64	9
V4046	395	77	26	56	48	13	174	104	17	61	33	78	34	5	1	3	2	21	80	13
V4047	469	72	20	68	40	11	126	71	25	70	40	70	42	7	1	4	3	20	77	11
V4048	587	71	18	41	31	12	343	78	24	56	41	65	42	8	1	4	2	20	50	9
V4049	374	85	32	99	64	13	412	109	14	63	30	74	31	5	1	3	2	19	96	14
V4050	457	97	31	80	42	13	950	72	46	49	57	115	61	14	3	8	4	17	119	9
V4051	300	80	42	75	71	11	778	73	24	88	38	88	39	7	1	4	3	18	104	20
V4052	441	120	30	83	39	15	205	176	15	64	34	63	35	6	1	3	2	23	72	12
V4053	337	87	31	57	75	12	54	113	21	62	32	82	34	7	1	4	2	21	76	16
V4054	586	136	20	85	47	18	286	120	31	98	55	99	58	12	3	6	3	28	89	14

5.7 Flint

by I.P. Brooks

Twenty flint artefacts were submitted, and it is assumed that they represent residual items in later contexts. The artefacts were recovered from thirteen separate contexts, with no context containing more than three items. The assemblage is summarised in Table 5.7.1

Method

A visual inspection was carried out on the flint assemblage from the site. The flakes were divided into two groups; tertiary flakes with uncorticated dorsal surfaces and broken flakes, there were no primary or secondary flakes. Where possible, the flint colours are defined using the Geological Society of America's Rock-Color Chart (Goddard *et al.* 1948).

Raw Materials

The raw materials used for the assemblage varies from opaque, light grey to a translucent dusky yellowish-brown flint. The majority of the artefacts, however, were on a mottled olive grey (5 Y 4/1) flint of poor translucency. Where it survives, the cortex on the artefacts was thin and worn suggesting a derived flint source. The site sits on the northern extent of chalk in Yorkshire; however the flint within this primary deposit is often of poor quality being opaque, grey and often cracked. While the few opaque grey artefacts recovered may come from this source it is more likely that they, and the rest of the assemblage, were collected from the till and till derived deposits which are common to the south of the site.

The Assemblage

The assemblage is dominated by a series of tertiary and broken flakes with seven of each being collected. Of these, three could be regarded as blades or blade fragments. No formal cores were found and the four worked lumps recovered are small and show little sign of any formal knapping strategy.

The two tools found consist of a side scraper and a possible burin. The scraper is well made on a squat tertiary flake. Its size and the quality of the retouch may suggest that the tool has some affinity to Beaker flintwork, although a general Late Neolithic to Early Bronze Age date is probably more appropriate. The possible burin was made on a distal fragment of a

broken flake. The flake appears to have been deliberately truncated with a notch having been knapped on one side of the flake to enable the snapping of the flake. The burin spall was then removed from the broken surface. The date of this tool is uncertain, although it is possibly contemporary with the rest of the assemblage.

In general the collection gives the impression of a residual assemblage, largely of Late Neolithic to Early Bronze age in date. There is little or no evidence of *in situ* flint working.

Table 5.7.1: Summary of the Flint Assemblage

Area	Context	Tertiary Flake	Broken Flake	Tool	Core	Worked Lump	Other	Total	Comments
A	1141	1	1					2	
A	1148			1				1	burin
A	1316	1	1					2	
B	1025		1					1	
B	1027			1				1	side scraper
B	1052	1				1		2	
B	1057	1						1	
B	1071	1	1					2	
B	1088	1	1					2	Blade fragments
B	U/S	1						1	
C	1330		1					1	
C	1336					3		3	
Tr D1	U/S		1					1	blade
Total		**7**	**7**	**2**	**0**	**4**	**0**	**20**	

5.8 Geological report and Description of Worked Stone

by Geoff Gaunt and Dave Heslop

Introduction

Three stone items were submitted. The items are identified by context number, except for one of the querns which is unstratified.

Description

Querns

1. 1250 - Area A, upper stone of beehive quern

Limestone, white (weathered pale brown near surfaces), variably oolitic and microbioclastic with sparse pisoliths (i.e. large ooliths), oncoliths (i.e. compound ooliths and/or algal concretions), large fossil bivalve fragments, fine-grained quartz and small sub-rounded masses of medium brown fine-grained sandstone, medium to thick bedded. Probably Middle Jurassic Cornbrash Limestone, although a source in the Upper Jurassic Corallian Group cannot be precluded.

Half fragment of upper beehive quern fractured through feed pipe and handle. Diameter is approximately 300mm and height is 152mm. Slightly asymmetrical due to uneven wear, with one side 30mm higher, and with greatest wear on handle side. Hopper is conical, 145mm in diameter and 60mm deep. Feed pipe section is not measurable. The outer face has a groove or erosion scar, 10-15mm wide, one third of the extant circumference, running along bedding plane. This might be man-made but is more likely to be natural. An oblique shallow scar on the lower part of the outer surface has a white powdery concretion adhering to it. The handle is revealed in section through the fracture. It is 44mm deep and of cylindrical section, approx 25mm wide. The outer surface of the limestone is soft and worn; and tooling has not survived, and there is no surface difference between the outer wall, the hopper and the grinding face, which is intact and slightly dished, maximum concavity is 9mm (Fig. 26, No. 1)

2. U/S - Area B, Beehive upper stone upper stone

Limestone, variably pale greyish-brown, pale yellowish-brown and dark reddish-brown (the colour boundaries being sharp and discordant to the depositional layering), otherwise virtually identical in lithology and fossil content to quern no. 1 (1250) summarised above, medium to thick bedded. Middle Jurassic Cornbrash Limestone.

Substantially complete (75% extant) upper beehive quern, but with only about 50% of the upper part of the hopper surviving, and almost none of the lip. Large diameter; 310 mm of regularly circular plan but with outer surface unevenly shaped or worn. Slightly curved outer wall, 134mm at its tallest. The concave hopper is broad and shallow, 130mm wide and 65mm deep. Wide, circular-sectioned, evenly drilled and worn feed pipe. Single handle socket, of triangular cross-section, 24mm in diameter and 54mm deep. The drilling of the socket stopped when a large pebble encountered; this now forms the base of the socket. There is a broad groove, about 15 mm wide, across the lip, adjacent to the handle hole, and

68mm above the socket. The grinding face has been smoothed but not polished by wear. The surface roughness of the stone was maintained by the exposure and breaking-off of the shell fossils (Fig. 26, No. 2).

Provenance

Quern No. 1 (1250) considered in isolation, is lithologically similar to some varieties of the Malton Oolite, Hambleton Oolite and (east of Pickering) the highest part of the Coral Rag, all in the Upper Jurassic Corallian Group and cropping out on the southern flanks of the North York Moors. Except for the diversity of colours, the lithological and fossiliferous aspects of both querns are so closely comparable that they suggest derivation from the same limestone. The colour variations and their sharp discordant boundaries in quern No. 2 (U/S) indicate the presence in the limestone of an iron-bearing mineral that has become oxidised to varying degrees by ground-water fluctuations and/or weathering. One particular limestone in the area around Reighton appears to have all the necessary features, the Middle (formerly Upper) Jurassic Cornbrash, which crops out from the Pickering-Newtondale area eastwards to the coast from Scarborough to The Wyke near Gristhorpe, and is variously described as white, grey, orange, yellow, black and iron stained (i.e. medium to dark brown). Some ooliths in the Cornbrash are of calcite but others are of berthierine, a hydrous iron silicate (formerly known as chamosite) which readily oxidises to goethite, a hydrous iron oxide (referred to as limonite in older geological literature); goethite can occur in all the colours mentioned above except white (which suggests un-oxidised berthierine) and black. The colours exhibited by quern No. 2 (U/S) indicate that this quern, unlike quern No. 1 (1250) has been subjected to sustained oxidation in a ground surface or near-surface location, a conclusion enhanced by its appreciably eroded condition.

Efficacy

Limestone, whether calcitic or dolomitic, does not make as efficient a quernstone as does sandstone, due to calcite and dolomite being softer minerals than quartz. The presence of sparse quartz grains and of berthierine ooliths (berthierine has a hardness intermediate between calcite and quartz) would slightly improve efficiency for cereal milling, but the grinding surfaces would still require periodic re-trimming. There are sandstones in the general area between Pickering and Scarborough that would make (and have made) more

efficient quernstones. The only advantage in using limestone would appear to be that it is easier to shape.

Worked stone

3. 1008 - Area B. Plough-scarred boulder

Igneous rock, dark grey, medium crystalline, consisting mainly of feldspar (probably plagioclase) and a black mineral (probably augite) with little or no quartz. Probably dolerite from the Great Whin Sill, which crops out from the Yorkshire-Durham border to northern Northumberland. Shape and lithology imply erratic. Shallow elongate hollow on one surface probably natural; if attempt to use as saddle quern this hollow would take a long time to excavate, and only an even harder igneous rock would make any impression on the dolerite. Other more narrow grooves could conceivably be artificial (?point-sharpening grooves) but may well be plough-scraping grooves if this erratic was found near ground surface.

5.9 Metallic objects and small finds

by Quita Mould

Introduction

All the iron and copper-alloy artefacts have been X-radiographed. Identifications have been made and correlated with the available site phasing where applicable. At the time of reporting, the material was in good condition and is quantified in the table below. The most significant metallic object recovered was a ‘double-headed button and loop fastener’ a full report on which forms section 5.10.

Table 5.9.1 Quantification of small finds

Material	Area A	Area B	Sample
Copper alloy	1	1	
Iron	2	7	
Antler	1		
Stone			1
Total	4	8	1

Area A

G5: A finial of turned antler (SF. 9) was found in the primary fill (1242) of the north to south boundary ditch of the enclosure in Area A (Fig 26, No. 2).

Three items of Roman metalwork were found in pit fills: A fragmentary openwork sheet mount (SF. 7) of copper alloy was found in the fill (1033) of pit 1034; a nail shank (SF6) was found in the fill (1290) of pit 1291, and a joiner's dog (SF. 10) was found in the fill (1216) of pit 1217.

Area B

G7: A copper-alloy button and loop fastener (SF. 1) and an iron object (SF. 2) were found in primary fill (1029) of the recut (1030) of an east to west boundary ditch (1026), (Fig 26, No. 1).

G14: The tip of a strap or blade (SF. 13) was found in the secondary fill (1156) of an east to west boundary ditch.

Two nails were recovered from the upper fill (1084) of a large quarry pit (1087). A broken chalk loomweight (SF. 11) was found in a sample of soil (7) from the fill (1031) of pit 1032 (Fig 26, No. 3).

U/S: A strap fragment (SF. 3), a nailed binding (SF. 5), a horseshoe branch (SF. 4) and a horseshoe nail (SF. 8) were found unstratified in Area B.

Range, Variety and Date

Dress accessories

The copper-alloy button and loop fastener (SF. 1) and openwork mount (SF. 7) are items with a military association. The exact function of the fastener is a matter of debate and suggestions include a cloak fastener, sword sheath fastener and harness strap fastener. Fasteners of this general type date to the 1st and 2nd centuries AD. The remains of the openwork mount (No. 7) are too fragmentary to allow definitive identification but small rectangular mounts of this type were in use on military belts or other strapwork during the Antonine Period (e.g. Bishop and Coulston 1993, 120, fig. 80, nos 1 and 2).

Domestic items

A decorative finial of turned antler was found in Area A (1242). The large diameter of the central hole precludes its use at the end of a knife handle. It is likely to come from a box or an item of furniture. The end broken from a strap, or possibly the tip of a knife blade (SF. 13), was found in Area B (1156), see structural below.

Transport

The branch broken from a horseshoe (SF. 4) and a horseshoe nail (SF. 8) were found unstratified in Area B. The lack of diagnostic features makes dating difficult, but both are likely to date to the late medieval or early post-medieval period.

Textile production

A broken chalk (SF. 11) loomweight from a warp-weighted loom was found. The warp-weighted loom has been in use in this country since the Iron Age, and simple, circular loomweights are difficult to date independently. Loomweights are rarely found on Roman sites (Cool 2002, 35) and this is unlikely to be of Romano-British date. It does fall into the middle range of Anglo-Saxon weights (Walton-Rogers 1997, 1753) and may well belong to this period.

Structural

A small collection of structural ironwork, including a joiner's dog (SF. 10), nailed bindings (SFs 2 and 5), strap fragments (SFs 3 and 13) and timber nails (SFs 6 and 12), are all likely to be of Roman date. While the iron object (SF. 2) is likely to be a thick strap binding, the X-radiograph shows some unusual features that makes this identification uncertain.

5.10 Double-headed button and loop fastener (Fig. 26, No. 1)

The fastener was found in the primary fill (1029) of a recut (1030) of an east to west orientated boundary ditch 1026. An iron object, probably a piece of heavy iron binding, was also found in the fill but no pottery occurred to assist with dating the deposit. The boundary ditch containing the fastener is assigned to the Late Iron Age while the ditch parallel to it and lying close by is attributed to the Romano-British period.

The fastener with its ring head of plano-convex section and lip-moulding resembles the ring-headed button and loop fasteners of Wild's class II (1970, 138, fig. 1) and Kilbride-Jones' quoit-shaped style (1980, 167). The fastener differs significantly from known examples, however, in having a rectangular-shaped plate with ribbed mouldings projecting above the end of the pierced, triangular loop, supported on the arms of a small strap bar or loop. The rectangular plate is comparable to fasteners with flat, rectangular heads of Wild's class VIb, Gillam type D (Wild 1970, 141, fig. 2) and flat, square heads of Kilbride-Jones (1980, 164-6). As such, having a ring head at one end and a rectangular head at the other, the Reighton fastener may be considered a double-headed form.

A small number of fittings are generally comparable to the Reighton fastener. Those that resemble the Reighton fastener most closely come from a hoard of Late pre-Roman Iron Age horse fittings and other metalwork from Melsonby, North Yorkshire, a short distance from the fort at Stanwick, by which name the hoard is usually referred. A gilded copper-alloy fitting from the hoard has a ring head at one end ornamented with two pairs of lip-mouldings, and a shank ending in a rectangular plate at the other, with a rectangular bar loop beneath (MacGregor 1962, 42 fig. 7, no. 25). The plate, with ring and dot ornament, continues the line of the shank rather than being raised above the rectangular bar as occurs on the Reighton fastener. Two other fittings (MacGregor 1962, 42 fig. 7, nos 28-9) from the hoard are of the same general type, differing only in the shape of the second terminal and the presence of settings for enamel decoration. Thirteen ring-headed button and loop fasteners of the type more commonly found were also present. All were described as strap terminals. This metalwork of mid-1st-century date has been considered to be a founder's hoard made in northern England in Brigantian territory (MacGregor 1962). Recent work has suggested it might be debris from a funeral pyre (Dungworth 1999, 40) rather than material collected by a metalworker for recycling.

A fitting from Traprain Law is also comparable in general form having a 'petal and boss' shaped head at one end and a square plate with a loop beneath at the other (Curle and Cree 1920, 178, fig. 16; Burley 1955, 191, no. 319). It was found in level 3 from which late 1st-century and possibly 2nd-century coins were recovered (Burley 1955, 119). Another from the fort at Abergavenny (Savory 1993, 212, fig 14, no. 43) has a petal and boss shaped head with roundels of enamelled decoration at either end, one with a cast loop below. The fitting, termed a strap hook, was dated by its enamelled decoration to AD 50-75. A fastener with a

pierced, rectangular head at one end and a flat, semi-circular plate with a rectangular loop beneath was found in topsoil at Richborough, Kent, at the other end of the country (Bushe-Fox 1928, 74, pl. XX no. 38). Though sharing several characteristics with the Reighton fastener, all these examples differ in having strap bars cast below the plate or second head.

Wild's classification of button and loop fasteners (1970) has been widely adopted in the literature and is used here. The ring head is common to several class II fasteners recovered from Yorkshire. The ridged and grooved rectangular plate is similar to the rectangular head of a class VIb example from Aldborough in the same county (Bishop 1996, 60, fig. 34, no. 366). Alborough, the Romano-British town of *Isurium Brigantum,* has produced a significant proportion of military fittings, along with a small number of items of native metalwork (Bishop 1996, 60, fig. 3, nos 2-7). Button and loop fasteners are common finds from Yorkshire; class III, with a 'petal and boss' shaped head, being perhaps the most frequently recovered with class II, with a ring head, well represented, most notably in the Melsonby/Stanwick Hoard. Hybrid head forms combining features from more than one class are also known from the county.

The ring-headed fastener, class II, is considered to be in the British Iron Age tradition and dated from the middle of the 1st century AD continuing in use into the 2nd century (Wild 1970, 138). Thirteen examples, along with the double-headed examples discussed above, were found in the hoard at Melsonby/Stanwick, North Yorkshire dated to *c.* AD 50-60 (Wild 1970, 148; MacGregor 1962), later refined to AD 47-71/2 (MacGregor 1976). Fasteners with plain rectangular heads, class VIb, are dated by Wild to the 2nd century AD (Wild 1970, 141). A clay mould for casting flat, rectangular-headed fasteners and ten fasteners of this type were found at Traprain Law, East Lothian, the mould in a 1st to 2nd-century deposit and the fasteners principally in 1st to 2nd-century and late 2nd-century levels. Fasteners of the ring-headed type, class II, and the flat, rectangular-headed type, class VIb, were both found along with other classes of fastener at Trapain Law. Lacking directly associated dating evidence it is only safe to say that the Reighton fastener dates to the second half of the 1st or the early years of the 2nd century AD. As the closest parallels lie in the Melsonby/Stanwick hoard one could suggest a date in the third quarter of the 1st century AD.

Button and loop fasteners have been recovered from a wide range of sites throughout the country in both civilian and military contexts but are most strongly associated with the

north of Britain. In 1989 Lindsay Allason-Jones observed that a third of the button and loop fasteners known at that time from the northern frontier zone had been found on native settlements while the rest came from Roman military sites (Allason-Jones 1989, 17). She agreed with Wild on the likelihood of button and loop fasteners being the product of native craftsmen supplying a range of trinkets to the Roman army who were ever willing to engage in a little retail therapy. Fasteners with overtly Roman decorative motifs being those targeted specifically at their military customers (Allason-Jones 1989, 17) rather than the product of Roman manufacture. Though the recorded numbers of button and loop fasteners and their find spots have increased steadily since this time, the picture appears to have stayed essentially the same. To date eighty-three examples have been recorded by the Portable Antiquities Scheme, a third of which came from the Yorkshire and Humberside area. The number recovered by excavation has also grown substantially. A review of the general type is required to confirm or deny this impression.

Possible uses of the Reighton fastener

While the original suggestion that button and loop fasteners were used to fasten clothing has long been viewed with scepticism (Wild 1970, 145), it has not proved easy to identify a single function for this group of objects. The general design of button and loop fasteners allows for two methods of use. They may be secured by the loop with the head free to pass through a separate loop or a 'keyhole' shaped slit in the centre of a strap. Alternatively, they may be used the other way round. The L-shaped neck allows for the fitting to be secured by the head passing through a slit in the centre of a strap leaving the loop for attachment to a second strap or thong, or for suspension of a pendant. While the insubstantial loops of the class VIII fasteners (Wild 1970, 141-3), apparently a first century type, were clearly intended for the former method, the latter method was chosen for fittings suspending small pendants of third century date (Bishop and Coulston 1989, fig. 48, no. 4 and Bishop and Coulston 1993, fig. 112, no. 16), variously described as military belt fittings and horse equipment. The ring-headed button and loop fasteners of Wild's class II, of which the Reighton fastener is a hybrid, differ slightly from the other classes of fastener with their solid heads in that the ring head may have acted as a strap distributor.

The rectangular plate on the Reighton fastener, with its decorative mouldings, was intended to be on view. It is most likely that a narrow strap, no more than 8mm wide and less than 3mm thick, was passed through the triangular loop beneath the plate. The ring at the

opposite end may have allowed two straps, or more, to be attached. The fastener may have served to connect at least three separate straps but the ring shows no sign of wear that might confirm this. The casting of the Reighton fastener appears crisp and fresh; it may have been new or hardly used when lost. Wild noted that none of the 165 button and loop fasteners that he catalogued showed any sign of wear (Wild 1970, 145). A connector of three narrow straps could have been put to a number of uses, amongst the more obvious being to attach a sheath or scabbard to a belt or as part of a bridle or other horse harness; both of which were considered by Wild.

The double-headed fitting might have been used in the suspension of a sword or dagger scabbard, or other piece of equipment, from a belt or baldric. A sword sheath found at Mainz is said to have two fasteners adhering to it (Wild 1970, 146, footnote 26).

In this regard, the recovery of a button and loop fastener with two *spathae* (short swords) and scabbard fittings found with two skeletons at Canterbury is of interest (Webster 1982, 185, fig. 100b). The hurried burials were dated to the late 2nd century by association with the button and loop fastener of class Va.

A junction for narrow leather straps may have been used on horse harness. Reconstruction of Celto-Roman harness suggests that multiple straps were connected at the breast, shoulders and haunch junctions (Bishop 1988, fig. 25). One might imagine that significant wear would result from such use, a feature not generally seen on button and loop fasteners. Sets of harness fittings that include matching button and loop fasteners are included in the hoards from Middlebie and Geinsheim (Wild 1970, 145, footnote 22). As the closest parallels to the Reighton fastener occurred amongst the four sets of harness fittings in the Melsonby/Stanwick hoard it is perhaps most likely that the fastener was used on horse harness.

Some button and loop fasteners are highly decorative with coloured enamels ornamenting the head others are plain and appear purely utilitarian. While the majority of fasteners are made of copper alloy, examples made of bone, class X, are also found. This might suggest that when it was not possible to supply cast copper-alloy examples, demand was sufficiently strong for their production in bone, a cheaper material readily to hand. Whatever their use, or varied uses, button and loop fasteners and their variants were clearly valued. Two fasteners, of differing styles, class Va and VIa, were found together in a

wooden toilet box interred in a York cemetery (Wild 1970, 145, nos 59 and 94), and so of some significance to the deceased or those who arranged the burial.

5.11 Fired Clay Object 1218

by Jane Cowgill and Elaine Morris

The ceramic finds are all fragments of a single highly-fired object. It has a smooth curved external wall, but if the inner surface is a true 'face' it has been less well finished. The wall is a maximum of *c.* 75mm thick. The diameter suggested by the curve is very large, probably too large for it to represent a vessel but it is also unlikely to be a part of a furnace, it is certainly not one connected with metalworking (the lack of slags also supports this). If the date of the feature was post-medieval they could be crucible sherds but the presence of ten Late Iron Age/early Romano-British sherds argues against this. A strange feature is that the pieces have a strong, rather unpleasant, chemical smell, which would not be expected to have survived if it was generated in the Roman period. The fabric and the crude method of production are reminiscent of Iron Age triangular loomweights, which this clearly is not.

Construction method is the usual rough technique of taking unwedged or poorly-wedged sandy clay and smearing or plastering or slabbing it into this shape. There is no evidence whatsoever for an association with salt production; it is extremely unlikely to be from a saltern oven as there is no indication of association with brine which has the ability to bleach, orange/red clays and also affects the ordinary firing colours as well into distinctive pinks and purples which are very diagnostic. The function of this object is problematical and has not been identified by the authors.

5.12 Ceramic Building Materials (CBM)

by J. Tibbles

Summary

The relatively small assemblage contained a brick fragment from pit fill 1033 which is likely to be the result of casual deposition and is of a post-medieval date of manufacture. The presence of the land drain fragment is probably the result of deep ploughing and is of a mid-19th-century date.

Introduction and methodology

A total of 2 CBM fragments weighing 85 grams were recorded. It should be noted that the diversity of size and colour within brick and tile caused during the manufacturing process must be taken into consideration when comparing examples within collected assemblages and local typologies. The varying sizes and colours can be attributed to the variation in the clays used, shrinkage during drying, firing within the kiln or clamp and the location of the brick/tile within the kiln. The dating of ceramic building material can be highly contentious due to its reusable nature.

Bricks and tiles alone cannot provide a firm date because of their reusable nature, but it is possible to date types of brick and roof tile by their earliest occurrence within dated contexts. The identification of new brick or tile types would supplement the existing regional typology and there is potential for comparison with CBM assemblages from elsewhere in the region. The presence or absence of hip and ridge tile suggests a variety of roof forms.

The assemblage was examined using a x15 magnification lens where applicable, to aid dating; fabric analysis was not undertaken. Information regarding the dimensions, shape and fabric (where applicable) was recorded and catalogued accordingly, and a Munsell colour code has been incorporated where appropriate. The presence of the original surfaces was also taken into consideration to aid identification.

The Assemblage

Table 5.11.1: CBM Assemblage

Material	Fragments	Weight gm
Brick	1	40
Land drain	1	45
Total	2	85

Discussion

The ceramic land drain was common throughout England and was easily manufactured by local industries by hand and later by using simple machines. The fragment recovered may represent the body of a 'Horse-shoe' type [Type 1a] (Tibbles forthcoming.) in use from the late 18th century through the early 19th century.

Little information can be gleaned from the non-diagnostic fragment of brick (1033) though its fabric suggests a post-medieval date of manufacture. Its irregular shape is the result of firing fracture, which has weakened the brick and thrown off the fragment.

Catalogue

Context 1250 1 Fragment 45g

Fragment of ceramic land drain 14mm thick. Fabric is a light Red (10R/6/8)

Provisional date: Mid-19th century

Context 1033 1 fragment 40g

Non-diagnostic brick fragment resulting from firing fracture. Fabric varies in colour between Pink 7.5YR/8/8 - Light Red 10R/6/6.

Provisional date: Post-medieval - Early modern.

5.13 Slag

by Jane Cowgill

Discussion

The undiagnostic slags are not by-products of iron smelting or smithing and may just be slightly unusual forms of fuel ash slag and therefore could have formed in any type of fire that reached a high enough temperature.

The only other type of slag recovered from the site was two pieces of Iron Age Grey. This slag is a light grey colour with a mid-grey very vesicular frothy core. They have evidently been molten and flowed and have a glassy-grainy structure and are high in silica and alumina. This type of slag has so far been exclusively found on Late Iron Age sites, regardless of underlying geology or site type/status and is commonly found in association with domestic rubbish, however, analysis has not yet been able to determine what process is responsible for its production.

Catalogue of the slag

Area A, context 1141: 2 pieces Iron-Age Grey slag, weight 156g

Area A, context 1296: 2 pieces of undiagnostic slag, weight 13g, black and glassy

Area C, context 1312: 1 piece of undiagnostic slag, weight 3g, black and glassy

5.14 Human Remains

by Malin Holst

These remains have been dated to 10 BC to AD 140 (cal) (Beta 225777, Appendix 4). The full report forms part of the evaluation and assessment reports (ASWYAS 2004b; ASWYAS 2007).

The skeleton had been interred in a crouched position on the left hand side, with the right hand by the right shoulder and the left hand by the knees. It was interred in an oval grave with the skull at the north-western end of the cut. The feature had been cut by a pit to the west and a gully to the south.

The skeleton was in a poor condition and had suffered from considerable post-mortem breaks, which can probably be attributed to increased bone fragility as a result of the soil conditions. Little superficial erosion was observed, which was mostly concentrated on the spongy bones of the vertebrae. The skull had been subjected to moderate fragmentation, probably caused by the weight of the soil above it. Inter-cutting of the grave by pit 103 had resulted in the removal of parts of the cranium, some of which were retrieved from the backfill of the pit.

Despite the poor preservation, the skeleton was almost complete: 70% of bone elements were represented.

Assessment of age

Age was determined using standard ageing techniques, as specified in Scheuer and Black (2000a; 2000b) and Cox (2000). In this instance, the poor preservation meant that only two ageing criteria survived. The fact that the long bone ends were completely fused suggested that this individual was at least 17 years old. The cranial sutures were partly closed, which

is indicative of an older age. Cranial sutures have been found to be a relatively inaccurate age indicator and as a result, more emphasis was placed on the ageing criteria of the hip. This age indicator suggested an age of 50 to 59 years. It was therefore determined that this individual was a mature adult, aged 46 years or older.

Sex determination

Sex determination was carried out using standard osteological techniques, such as those described by Mays and Cox (2000). On the basis of the cranial and pelvic characteristics, and measurements confirming the gracile nature of the bones, the skeleton was found to be female.

Metric analysis

In general, the skeleton was very gracile (slight), but measurements suggested that she had well-developed upper arm muscles.

Conclusion

Osteological analysis of the skeleton established that this individual was a mature adult female, who was relatively slight in appearance. It is probable that she carried out an habitual activity which involved squatting.

Pathological analysis

The skeletal evidence suggests that this individual enjoyed general good health, with no evidence for commonly observed conditions such as infection, sinusitis, iron deficiency, fractures or weapon trauma. Physical work took its toll on the skeleton in the form of micro-trauma at some muscle attachments. The advancing age of this woman had led to the onset of joint deterioration, typical of her years.

Dental health

Dental analysis showed that this woman suffered from poor dental health, caused by the formation of dental plaque concretions on the teeth, and severe periodontal disease, leading to the loss of the majority of her teeth.

Neonate Remains

The bone (1296) was from a neonate, a baby that was either a late term foetus or had just been born. There were parts of the left lower leg, the ribs, a small pelvis and a small right scapula fragment (shoulder blade). These remains have been dated to 150 BC to 140 BC (cal) and 110 BC to AD 60 (Beta 225780, Appendix 4).

Discussion

Osteological analysis found that the skeleton was that of a mature adult female, aged at least 46 years. She was of a slight build, with some evidence of strong muscular development on the upper arms, which is commonly observed. Advancing age contributed to moderate joint deterioration in the spine, ribs and right shoulder. It is possible that she carried out tasks which involved frequent squatting. Poor oral hygiene contributed towards the loss of almost all her teeth before death, which meant that she would have been unable to eat tough foodstuffs.

5.15 Animal bones and marine shells

by Jane Richardson

Introduction

In total, 1523 animal bone fragments and sixteen marine shells were recovered from phased deposits (Table 5.15.1). Unfortunately, only a fraction of the animal bones were identified as diagnostic, non-reproducible zones (cf. Tables 5.15.1 and 5.15.2) and this limits the usefulness of the assemblage for assessing husbandry practices and dietary status. This was largely due to the fragmented nature of the assemblage, but erosion to bone surfaces was also a factor. In contrast, gnawing of bones was limited to less than 3% of bones from Phases 2 and 3, and less than 1% of bones were burnt from these phases. With the exception of a brief note on the bones associated with the 'Argham Dykes' (Phase 1), analysis will concentrate on the larger assemblages from Late Iron Age (Phase 2) and Romano-British (Phase 3) deposits.

Methodology

Bones were identified to taxon wherever possible, although lower-order categories were also used (e.g. cattle/horse-sized). The separation of sheep and goat bones was routinely attempted, using the criteria of Boessneck (1969); Payne (1969; 1985), but as no goat bones were identified, sheep/goat bones are assumed to be of sheep. For age-at-death data, epiphyseal fusion (after Silver 1969) and the eruption and wear of deciduous and permanent cheek teeth were considered. Age stages based on dental eruption were calculated using Halstead (1985) for cattle, Payne (1973) for sheep and a similar wear progression was assumed for pig. Bone condition, erosion and fragment size were recorded in order to assess bone preservation, while gnawing, burning and butchery marks were noted to determine bone treatment. No biometrical data were recorded due to fragmented nature of the assemblage and its small size.

Results

Only sixteen bone fragments were recovered from a tertiary fill (1163) of G14 associated with the 'Argham Dykes'. Of these, only two were identified to taxon, a cattle pelvis and a sheep mandible. The remainder were cattle/horse-sized and pig/deer-sized fragments (Table 5.15.1). Given the very small assemblage size, these bones have no interpretative value. In addition, an incisor from a rat-sized animal was retrieved from a fill (1176) associated with the first phase of the 'Argham Dykes'. Its significance is questionable, however, as such a small animal may have burrowed into earlier deposits.

From Phase 2 features, 871 bones were retrieved but of these only 104 were identified as non-repeatable zones (Table 5.15.2). These indicated that cattle bones dominated the assemblage, followed by sheep and horse. Dog and pig bones were less frequently recovered. During this period any of these animals may have been consumed for their meat, as restrictions against the consumption of horses, for example, only came later under the influence of Rome (Toynbee 1973, 185). Butchery marks indicative of dismembering and meat removal, however, were restricted to four cattle bones and one cattle/horse-sized fragment. Only one further fragment was marked, a red deer antler that displayed saw marks indicative of working.

Age data from epiphyseal fusion and dental eruption and wear were scarce due to the

relatively small size of the assemblage. Nevertheless sub-adult and adult cattle and sheep were identified. The slaughter of sub-adult animals is indicative of husbandry practices which target meat production, while adult animals suggest the presence of a breeding population and/or the production of secondary products such as milk and wool. Horse incisors have been used to identify animals of one to three years, around seven years and fourteen years or older at death.

The shell component of the assemblage was too small to be instructive and given the coastal location of the site, a scatter of marine shells should be expected.

The bones associated with Phase 3 are again dominated by cattle bones and to a lesser extent by sheep, while horse, pig and dog bones were recovered less frequently compared to Phase 2. By the Roman period it is unlikely, but not impossible, that horses or dogs were being consumed and a diet of beef, lamb/mutton and pork is assumed. Certainly cattle, sheep and cattle/horse-sized bones had been butchered. Despite the site's location, no evidence for a diet rich in marine resources, either fish or shell fish, was identified. Bird bones from crow/rook and possibly a gannet were also retrieved.

Again age data were sparse, but neonatal, sub-adult and aged cattle, neonatal and older sheep, and sub-adult pigs were identified. Meat production and the possibility of secondary resources are indicated once more, while the presence of neonatal cattle and sheep reveal the presence of breeding animals. The occurrence of a juvenile horse may also indicate that horses were raised nearby as this individual was too young to have been broken and schooled.

Conclusions

Unfortunately too few bones and shells were recovered to facilitate further analysis. In summary, it was only possible to identify the utilisation of cattle, sheep and pigs for meat and perhaps for their secondary products from the Late Iron Age onwards. Although the rearing of cattle and sheep was only identified categorically from Romano-British deposits, it is likely that these domestic animals were also raised locally during the Iron Age. Despite the coastal location of the site, domestic livestock rather than marine resources appeared to be the main source of dietary meat.

Table 5.15.1: Summary of Animal Bone and Shell by Phase

	Phase 1	Phase 2	Phase 3	Phase 4
Cattle	1	145	83	48
Horse		50	15	1
Pig		18	6	
Sheep	1	60	63	
Dog		20	3	
Cat-size		1		
Red deer		1		
Cattle/horse-size	13	501	256	21
Pig/deer-size	1	2	5	
Sheep/dog-size		72	131	
Water vole		1		
Microfauna	1			
Crow/rook			1	
cf. Gannet			2	
Total	**17**	**871**	**565**	**70**
Limpet (*Patella* sp.)		3		
Venus (*Venus* sp.)			1	
Undiagnostic marine shell		1		
Garden snail (*Helix aspersa*)		2	9	
Total		**6**	**10**	

Table 5.15.2: Summary of the Animal Bone and Shell Zones by Phase

	Phase 1	Phase 2	Phase 3	Phase 4
Cattle		61	36	
Horse		14	6	1
Pig		3	4	
Sheep	1	20	14	
Dog		5	2	
Cattle/horse-size	1	1	3	
Sheep/dog-size			1	
Crow/rook			1	
cf. Gannet			2	
Total	**2**	**104**	**69**	**1**
Limpet (*Patella* sp.)		1		
Venus (*Venus* sp.)			1	
Garden snail (*Helix aspersa*)		2	7	
Total		**3**	**8**	

Table 5.15.3: Catalogue of Animal Bone by Context

Context	Quantity	Cat-size	Cattle	Crow /Rook	Dog	Gannat?	Horse	Large Mammal	Medium Mammal	Microfauna	Pig	Red Deer	Sheep	Sheep /Goat	Small Mammal	Water Vole	Sum of Animal bone
1005	57		7				1	44			1			3	1		**57**
1008	38		6		1		1	19	1		1			9			**38**
1012	13		1				1	10						1			**13**
1020	31		5					10						5	2		**22**
1021	23		1											7	15		**23**
1023	56		16	1			4	22						2	11		**56**
1025	28		1		16			10						1			**28**
1027	18		2					15						1			**18**
1033	1						1										**1**
1037	1									1							**1**
1041	3		1				1								1		**3**
1043	3		2					1									**3**
1049	2													2			**2**
1052	28		1				23	3							1		**28**
1054	5	1	2					2									**5**
1063	2		1				1										**2**
1075	10														10		**10**
1077	3						1	1						1			**3**
1088	4		1				1	2									**4**
1096	1														1		**1**
1098	7							6						1			**7**
1103	2													1			**1**
1104	2														2		**2**
1110	6		2					4									**6**
1125	5		3											1			**4**
1127	18		2				3	9						1			**15**
1141	74		10				1	56			1			6			**74**
1159	9		6											2	1		**9**
1161	3						2										**2**
1163	16		1					13	1					1			**16**
1174	55		10					23			2			3	15		**53**
1176	1									1							**1**

Context	Quantity	Cat-size	Cattle	Crow /Rook	Dog	Gannat?	Horse	Large Mammal	Medium Mammal	Microfauna	Pig	Red Deer	Sheep	Sheep /Goat	Small Mammal	Water Vole	Sum of Animal bone
1178	1		1														**1**
1180	3		2					1									**3**
1182	7							6				1					**7**
1184	20		1				3	14						1	1		**20**
1185	3													1	1	1	**3**
1187	5		1					2									**3**
1189	236		31				4	148			1			10	40		**234**
1197	13		3					8	1						1		**13**
1216	10							1						2	7		**10**
1218	16							15						1			**16**
1220	21													1	20		**21**
1228	7		2				2	2							1		**7**
1230	14		2				1	3						8			**14**
1236	4							3						1			**4**
1238	1		1														**1**
1242	29		8			2		18						1			**29**
1244	40		11				1	25	1					1	1		**40**
1248	47		4				1	38						3			**46**
1250	55		5				1	40			2			1	6		**55**
1252	7		1					2						2	2		**7**
1256	1		1														**1**
1268	28								4		1			4	19		**28**
1271	4						1	2						1			**4**
1278	1													1			**1**
1282	1							1									**1**
1284	19		4				1	9						5			**19**
1288	1							1									**1**
1296	23		2					6			1				14		**23**
1306	8							3							5		**8**
1308	47		47														**47**
1312	18							18									**18**
1316	57		9					42			1			2	3		**57**
1324	74		27				7	31						7	2		**74**
1330	100		9					81			3		1		6		**100**
1336	124		18					68			13			15	10		**124**

Context	Quantity	Cat-size	Cattle	Crow /Rook	Dog	Gannat?	Horse	Large Mammal	Medium Mammal	Microfauna	Pig	Red Deer	Sheep	Sheep /Goat	Small Mammal	Water Vole	Sum of Animal bone
1338	3							3									**3**
1352	1							1									**1**
1354	3													1	2		**3**
1364	3						1	2									**3**
1366	2		1					1									**2**
1368	16						2	10						1	3		**16**
1370	3		3														**3**
1372	11		5										1	2	3		**11**
1374	28		6					17						5			**28**
1399	2														2		**2**
Total	**1642**	**1**	**286**	**1**		**2**	**66**	**872**	**8**	**2**	**27**	**1**	**2**	**125**	**209**	**1**	**1603**

5.16 Organic Remains

by John Carrott and Alexandra Schmidl

Introduction

Forty-eight washovers from pre-processed bulk sediment samples ('GBA'/'BS' sensu Dobney *et al.* 1992) were submitted to Palaeoecology Research Services Ltd (PRS), County Durham.

Methods

Forty-eight bulk sediment samples, most of 10 litres (those from contexts 1328 and 1350 were each 5 litres), were processed by the excavator to 1mm (with a 300 micron sieve for the lighter 'flot' (hereafter termed 'washover') fraction. For two of the samples (those from contexts 1185 and 1199), small numbers of snails sorted from the residues were included.

Charred plant remains were examined for identification and for consideration as the basis for radiocarbon dating by standard radiometric technique or accelerator mass spectrometry (AMS). Nomenclature for plant taxa follows Stace (1997).

All the snails present were identified as closely as possible (with reference to Ellis 1969; Cameron and Redfern 1976; Kerney and Cameron 1979; Cameron 2003). Nomenclature for the mollusc remains follows Kerney (1999).

The abundance of the snail taxa present were recorded semi-quantitatively on a four-point scale: f – few (up to 3 individuals); s – some (4 to 20 individuals); m – many (21-50 individuals); v – very many (more than 50 individuals). Where minimum numbers of individuals could be readily determined counts were recorded.

Results

Of the 48 samples examined, only seventeen produced small assemblages of ancient plant remains preserved by charring. In addition, most of the samples contained rootlets and uncharred seeds/fruits which were almost certainly modern contaminants. The plant remains recovered are listed in Table 5.16.1, together with an indication as to their

suitability for radiocarbon dating.

Invertebrate assemblages from the samples fell into one of three categories, those with no remains at all, those consisting only of *Cecilioides acicula* (Müller) and/or unidentified shell fragments and those with a few to moderate numbers of identifiable land snails of taxa other than C. *acicula*. No ancient insect remains were recovered from the samples. The thirteen deposits which gave only small numbers of Cecilioides and/or unidentified fragments were: Contexts 1113, 1180*, 1201*, 1208, 1220, 1226, 1228, 1250, 1260, 1271, 1274, 1288 and 1317. The last contained only unidentified shell fragments and those marked '*' gave both a few unidentified fragments and *Cecilioides acicula*.

Details of the larger snail assemblages, recovered from the twelve remaining deposits, are presented as Table 5.16.2. All were from deposits located in Area B and some of the shells were quite well preserved, although there were often numerous unidentified fragments.

Discussion

Where charred plant remains were recovered they were mostly in the form of small quantities of cereals and associated weeds; chiefly from pit fills in Area A (although remains were also recovered from some cut features in Areas B and C). At least three cereal taxa were identified: barley – *Hordeum distichon* L./H. vulgare L., naked wheat – *Triticum aestivum* L./T. durum Desf./T. turgidum L. and probably rye – cf. *Secale cereale* L. A glume base of emmer/spelt wheat (*Triticum dicoccum* Schübl./T. spelta L.) indicated that emmer (*Triticum dicoccum* Schübl.) or spelt (*Triticum spelta* L.) wheat was also present at this site. All the cereal remains most likely derive from crop processing activities nearby, but they were too few for confident interpretation.

There were also a few remains of agricultural weeds (presumably collected accidentally together with crop plants) in a small number of the deposits. These included barren/drooping brome (*Anisantha sterilis* (L.) Nevski/A. *tectorum* (L.) Nevski), dock (*Rumex*), rye brome (*Bromus secalinus* L.) and wild radish (*Raphanus raphanistrum* L.), variously identified from Contexts 1005, 1023, 1049 (labelled 1048, Sample 14) and 1282.

Contexts 1005, 1023, 1031, 1049 (labelled 1048, Sample 14), 1075, 1208, 1226, 1228, 1271, 1274, 1278 (labelled 1274, Sample 77), 1282, 1284, 1336, 1350, 1376 and 1401 (Sample 125) gave small amounts of charred plant remains suitable for radiocarbon dating.

In each case, the small amounts of material available would necessitate the use of AMS.

Thirty-six of the samples gave no remains of snails or other ancient invertebrates or only small numbers of remains of no interpretative value—records of *Cecilioides acicula* were not considered in the interpretation as this is a burrowing species and almost certainly intrusive to the deposits.

All twelve of the samples with potentially interpretatively valuable mollusc remains were from deposits in Area B. Most were from the primary fills of ditches (Ditches 1019, 1076, 1078, 1100, 1193 and the Argham Dyke cuts 1177 and 1200) or ditch recuts (Recuts 1186 and 1190), but two other cut features (pit 1044 and gully 1105) also gave small (sometimes tiny) assemblages. Three of these assemblages (from contexts 1023, 1043 and 1178) were composed of only a few identifiable individuals and were too small for any reliable interpretation.

The nine remaining snail assemblages were of rather similar character and all included *Pupilla muscorum* (L.) and at least one Vallonia species (V. ?*costata* (Müller) and/or V. ?*excentrica Sterki*). Taken together these suggest that, in general, the landscape was open and lightly vegetated, probably no denser than short-turfed (calcareous) grassland, with areas where the underlying rock was exposed. *Trichia* ?*hispida* (L.) was also present in all but one of these nine deposits but this is a catholic species of no interpretative value.

The snail *Vitrea* ?*crystallina* (Müller) was present in seven of the nine samples (all bar those from contexts 1099 and 1104), this is also an ecologically catholic species but is restricted to moist and sheltered places. Here, it is most probably indicative of longer grass growth within the modified and more sheltered environment of the cut features, with its absence from contexts 1099 and 1104 perhaps indicating that ditch 1100 and gully 1105 were relatively clear of such additional vegetation and drier than others in this Area. Conversely, V. ?*crystallina* was relatively abundant (50 or so individuals) in context 1199 (primary fill of western Argham Dyke 1200) and there were also a few remains of other species (*Carychium* ?*tridentatum* (Risso) and *Ena obscura* (Müller)) of damper more shaded conditions. These species, together with *Punctum pygmaeum* (Draparnaud)—a species found in a wide variety of well-vegetated places but particularly characteristic of leaf litter in deciduous woods—are perhaps indicative of some more substantial vegetation, such as hedgerow or deciduous woodland in the vicinity of this deposit in prehistoric times.

Context 1176 (primary fill of eastern Argham Dyke 1177), also in the north of Area B gave a very similar range of species lending support to the presence of such habitats in this part of the site at the time of formation of these primary fills. Contexts 1185 and 1192, both primary ditch fills located towards the centre of Area B, also gave some remains of P. *pygmaeum* which may also indicate some denser vegetation, but here there were no other indicators of anything as substantial as woodland, or even hedgerow.

Table 5.16.1: Plant Remains in the Washovers Recovered From Sediment Samples

CN	SN	Area	CD	Identifiable Ancient Plant Remains	AMS	Modern contaminants
1005	2	B	primary fill of recut 1004 of Ditch 1006	two cereal grains (probably barley - *Hordeum distichon* L./H. *vulgare* L.), three small caryopses of grass family (*Poaceae*), one mericarp of wild radish (*Raphanus raphanistrum* L.)	Yes	rootlets, goosefoot (Chenopodium), knotgrass (Polygonum aviculare L.)
1007	3	B	primary fill of ditch 1006	no suitable material	No	rootlets, goosefoot (Chenopodium)
1023	6	B	primary fill of ditch 1019	one caryopsis of barren/drooping brome (*Anisantha sterilis* (L.) Nevski/A. *tectorum* (L.) Nevski)	Yes	goosefoot (Chenopodium)
1031	7	B	fill of pit 1032	one cereal grain (probably barley - *Hordeum distichon* L./H. *vulgare* L.)	Yes	rootlets, goosefoot (Chenopodium)
1037	8	B	fill of pit/post-hole 1038	no material	No	goosefoot (Chenopodium), chickweed (Stellaria media (L.) Vill.)
1043	11	B	fill of pit 1044 same as 1017	no material	No	rootlets
1047	13	B	fill of pit 1048	no material		rootlets, dock (Rumex)
1049*	14	B	fill of post-hole 1050	one cereal grain (probably barley - *Hordeum distichon* L./H. *vulgare* L.), one cereal grain of wheat (*Triticum*), two *achenes* of dock (*Rumex*)	Yes	rootlets, goosefoot (Chenopodium), pink family (Caryophyllaceae)
1073	18	B	primary fill of roundhouse Gully 1074	no material	No	rootlets
1075	19	B	primary fill of ditch 1076	one cereal grain (probably wheat - *Triticum*), two unidentifiable cereal grains (poorly preserved)	Yes	rootlets, goosefoot (Chenopodium)
1077	20	B	primary fill of ditch 1078	no material	No	rootlets, goosefoot (Chenopodium)
1082	21	B	primary fill of large quarry pit 1083	no material	No	rootlets, goosefoot (Chenopodium)
1096	22	B	primary fill of gully 1097	no material	No	goosefoot (Chenopodium)
1099	24	B	primary fill of ditch 1100	no material	No	rootlets, goosefoot (Chenopodium)
1104	26	B	primary fill of gully 1105	no remains other than a few fine unidentified charcoal fragments to 5mm	No	
1113	28	B	primary fill of gully 1114	no material	No	goosefoot (Chenopodium)
1139	32	A	primary fill of ditch 1140	no material	No	
1148	33	A	primary fill of ditch	no material	No	rootlets

CN	SN	Area	CD	Identifiable Ancient Plant Remains	AMS	Modern contaminants
			1149			
1176	38	B	primary fill of eastern Argham Dyke 1177	no remains other than a few fine unidentified charcoal fragments to 3mm	No	
1178	41	B	primary fill of gully 1179	no material	No	
1180	39	B	primary fill of recut 1181 of ditch 1183	no material	No	
1185	42	B	primary fill of recut 1186 of recut 1190 of ditch 1193	no material	No	goosefoot (*Chenopodium*)
1189*	43	B	primary fill of recut 1190 of ditch 1193	no material	No	goosefoot (*Chenopodium*)
1192	44	B	primary fill of ditch 1193	no material	No	
1199	45	B	primary fill of western Argham Dyke 1200	no material	No	
1201	46	B	primary fill of ditch 1202	no material	No	goosefoot (*Chenopodium*), petty spurge (*Euphorbia peplus* L.)
1206	48	B	primary fill of ditch 1207	no remains other than a few fine unidentified charcoal fragments to 3mm	No	
1208	52	A	primary fill of ditch 1209	one cereal grain of naked wheat (*Triticum aestivum* L./T. durum Desf./T. *turgidum* L.)	Yes	rootlets, fool's parsley (*Aethusa cynapium* L.)
1220	54	A	primary fill of pit 1221	no remains other than a few fine unidentified charcoal fragments to 5mm	No	rootlets, fool's parsley (*Aethusa cynapium* L.)
1226	56	A	fill of pit 1227	one cereal grain of probably rye (*Secale cereale* L.)	Yes	rootlets
1228	57	A	fill of pit 1229	five unidentifiable cereal grains (poorly preserved), one small caryopsis of grass family (*Poaceae*)	Yes	goosefoot (*Chenopodium*), chickweed (*Stellaria media* (L.) Vill.)
1250	69	A	primary fill of ditch 1251	no material	No	goosefoot (*Chenopodium*)
1260	67	A	fill of post-hole 1261	no material	No	rootlets
1271	75	A	primary fill of pit 1272	three cereal grains of naked wheat (*Triticum aestivum* L./T. durum Desf./T. *turgidum* L.), four unidentifiable cereal grains (poorly preserved)	Yes	rootlets
1274	78	A	fill of pit 1275	two cereal grain (probably barley - *Hordeum distichon* L./H. *vulgare* L.), one cereal grain of wheat (*Triticum*), six unidentifiable cereal grains (poorly preserved), one glume base of emmer/spelt wheat (*Triticum dicoccum* Schübl./T. *spelta* L.)	Yes	rootlets

CN	SN	Area	CD	Identifiable Ancient Plant Remains	AMS	Modern contaminants
1278*	77	A	fill of pit 1279	one cereal grain (probably barley - *Hordeum distichon* L./H. *vulgare* L.)	Yes	rootlets
1282	80	A	fill of pit 1283	one cereal grain of naked wheat (*Triticum aestivum* L./T. durum Desf./T. *turgidum* L.), five unidentifiable cereal grains (poorly preserved), one glume base of emmer/spelt wheat (*Triticum dicoccum* Schübl./T. *spelta* L.), one caryopsis of rye brome (*Bromus secalinus* L.)	Yes	rootlets
1284	81	A	fill of pit 1285	one unidentifiable cereal grain (poorly preserved)	Yes	
1288	82	A	fill of pit 1289	no material	No	goosefoot (*Chenopodium*)
1317	95	C	primary fill of ditch 1318	no material	No	rootlets
1328	102	C	primary fill of pit 1329	no material	No	
1336	98	C	primary fill of roundhouse gully 1337	one unidentifiable cereal grain (poorly preserved)	Yes	rootlets, black-bindweed (*Fallopia convolvulus* (L.) Á. Löve), dandelion (*Taraxacum*)
1350	106	C	primary fill of pit 1351	one cereal grain (probably barley - *Hordeum distichon* L./H. *vulgare* L.)	Yes	rootlets, goosefoot (*Chenopodium*)
1352	114	C	fill of plough mark 1353	no material	No	rootlets
1372	115	C	primary fill of roundhouse gully 1373	no material	No	rootlets
1376	116	C	primary fill of pit 1377	one unidentifiable cereal grain (poorly preserved)	Yes	rootlets
1399	127	C	fill of post-hole 1400	no material	No	rootlets, dandelion (*Taraxacum*)
1401*	125	C	Fill of post-hole 1396	one small caryopsis of grass family (*Poaceae*), two cereal grains (probably barley - *Hordeum distichon* L./H. *vulgare* L.)	Yes	

Key: CN = context number; SN = sample number; CD = Context description (from the excavator); ?AMS = ancient remains suitable for radiocarbon dating by accelerator mass spectrometry present.

* - the washovers from these samples were mislabelled. In each case the sample number remained correct but the context numbers shown in the table above follow the project manager's corrections: context 1049 (table) = context 1048 (bag labelling), context 1189 (table) = context 1139 (bag labelling), context 1278 (table) = context 1274 (bag labelling), context 1401 (table) = context 1395 (bag labelling).

Table 5.16.2: Land snails in the washovers recovered from sediment samples

CN	SN	Area	*Carychium* ?minimum Müller	*Carychium* ?*tridentatum* (Risso)	*Carychium* sp.	*Cochlicopa* ?lubrica (Müller)	*Pupilla muscorum* (L.)	*Vallonia* ?*costata* (Müller)	Vallonia ?*excentrica Sterki*	*Vallonia costata* or V. excentrica	*Ena obscura* (Müller)	*Punctum pygmaeum* (Draparnaud)	*Vitrea* ?*crstallina* (Müller)	?*Oxychilus* sp.	*Cecilioides* acicula (Müller)	*Trichia* ?*hispida* (L.)	?*Trichia* sp.	*Cepaea* ?*nemoralis* (L.)	*Arianta/Cepaea* sp.	U	Notes
1023	6	B															1	1		1	
1043	11	B	1	1				1												s	
1075	19	B				1	1			7			2		m	3			6	s	
1077	20	B					6	1	7				1		s	~4				m	
1099	24	B					6		5						s					2	
1104	26	B				2	2		~6					f	f	~20				m	
1176	38	B		4			~15	s	vm		2	~7	7			s				vm	
1178	41	B					1								f					s	
1185	42	B					m		~50			~5	8			~30				vm	Includes 8 records of snails from the residue, mostly Trichia
1189*	43	B				1	~16		~20				2		f	~12				m	
1192	44	B					~28		~32			~4	1			~30				vm	
1199	45	B		1	2		~6		~28		1	~12	~50			~15		5		vm	Includes 1 *Cepaea* ?*nemoralis* from the residue

Key: CN = context number; SN = sample number; U = quantity of unidentified snails; f = few (up to 3 individuals); s = some (4 to 20); m = many (21 to 50); vm = very many (more than 50). See Table 5.22 for context descriptions

- - the washover from this sample was mislabelled. The context number shown in the table above follows the project manager's correction: context 1189 (table) = context 1139 (bag labelling).

6 Discussion

6.1 Phase 1: Pre-Late Iron Age Remains

The Argham Dykes

Long-distance linear earthworks, usually referred to as 'dykes', along with barrows, are the principal Bronze Age monuments recorded in North and East Yorkshire. Excavation and research on these features have been uneven, with fieldwork concentrated on barrow cemeteries which are more profitably excavated and more easily dated (Mortimer 1905). Even when there has been excavation the difficulty in dating these 'dykes' has long been recognised; datable artefacts or ecofacts are the result of settlement activity which may have been absent along large stretches of these dykes when they were first cut and datable remains may only be deposited in the fills of the dykes much later. It is also the case that such large monuments are not destroyed when they become obsolete but may be maintained, recut and reused in later periods by local populations. Thus datable material, even if it is recovered from excavation, is therefore more likely to be due to this activity than anything associated with its original usage. Such problems of dating have often been stated (e.g. Dent 1988; Powlesland 1988; Spratt 1993; Stoertz 1997; Mackey 2003) and a *terminus anti quem* may be the most that can be realistically hoped for in the dating of these features in the context of excavations such as that at Reighton.

Despite such problems, it is generally assumed that these monuments date to the Mid to Late Bronze Age (e.g. Stoertz 1997, 40; Richmond 1999, 107). This is because pottery found from the dyke fills has been dated to broadly this period (Manby 1980, 328), and because what are regarded as similar linear earthworks dating to this period are extensive features on similar geological and topographic areas in southern Britain (Bradley *et al.* 1994). Unfortunately, no chronological link has been demonstrated between the linear earthworks in these different areas, there are problems in dating many of the southern 'dykes' (Bradley *et al.* 1994, 15), and it is questionable whether the Wolds Dykes are true analogues of their southern counterparts anyway (see the discussion on function below).

No datable finds were recovered from the primary or secondary fills of either of the Argham Dykes, however, it may be concluded on very broad stratigraphic grounds that this monumental feature was constructed sometime between the Early Bronze to Mid-Iron

Age. The Argham Dykes run along the length of the western edge of a Neolithic cursus at its southern terminus and also form the eastern limit of a large enclosure at Bell Slack, between Burton Fleming and Rudston (Stoertz 1997, 60). Moreover, the excavation at Reighton has shown that parts of the dykes were recut in the Late Iron Age. Therefore, the assumption made generally about the date of this feature may be broadly correct in this case.

As there are problems assigning dates to the Wolds Dykes, so is it equally difficult to determine function. It is often stated that these linear earthworks represent 'tribal or territorial' boundaries (e.g. Challis and Harding 1975; Dent 1983a; Stoertz 1997; BHWB 2003; ASWYAS 2004b). These definitions are unsatisfactory; the word 'tribal' assumes a form and level of political organisation not known to have existed in this region during this period, and evidence describing affinity or differences between peoples of different areas through material culture correlating with these 'boundaries' is also lacking. The word 'Territory' applied to large scale monuments such as the Wolds Dykes implies a systematic and long lasting compartmentalisation of the landscape, and there seems to be little if any evidence that they were all part of the same chronological phase, or that they shared the same function. It may be that the generally held concept of a landscape divided by these dykes is an illusion; a product of the two-dimensional view afforded by aerial photographs (see Giles 2007, 107).

In the most comprehensive survey in the region to include these dykes since Mortimer (1905), Stoertz offers a suggestion as to the function of these features: 'In topographical location, form and character, the Wolds Dykes are similar to prehistoric "ranch boundaries" in Wessex, suggesting that these features served the same purpose of stock and territorial control' (1997, 62). This does not significantly deviate from Mortimer's idea at the beginning of the 20th century that 'They would serve as enclosures for family or even tribal boundaries and tribal settlements, and would serve admirably for keeping cattle' (in Fenton-Thomas 2005, 34). Stoertz also points out that most of the Wessex linear ditches comprise a single ditch with one bank on one side or a single ditch between two banks, and '…on the gently rolling slopes of Wessex they run a course largely independent of contours' (Stoertz 1997, 65). The Wessex earthworks also seem to be of rather modest construction (cf. Bradley *et al.* 1994, fig. 47), while some of the Wolds dykes are huge, and in some cases have up to five or six parallel running ditches (Fenton-

Thomas 2005, 29). The 'Argham Dykes' are double ditched, generally follow the contours, only significantly crossing contours towards their northern end where they deviate slightly to the east (Stoertz 1997, map 2), and appear of more 'monumental' scale (Fig. 17 and Plates 8-10).

If these dykes are boundaries, enclosing packages of land containing elements of high and low ground and access to water courses to enable mixed farming (Spratt 1990, 152), similar to the conclusion of the study on the Wessex linear earthworks (Bradley *et al.* 1994), then in the case of the Argham Dykes, the area to the east may define a 'land block' taking in most of Flamborough head and with the Gypsey Race to the south and Danes Dyke to the east enclose an area of approximately 90 km² (Stoertz 1997, 69). If the 'network' of other Wolds dykes was planned and laid out at the same time as the Argham Dykes, it suggests an extraordinary level of planning and organisation, far beyond that demonstrated by the construction of the modest round barrows of the period.

The construction of the dykes and to an extent the numbers of barrows attest to a significant and well organised population throughout the late Bronze Age, though evidence for the settlement of this population is scarce. It is thought that the reason for this is that the people of this period lived in unenclosed settlements, and as such have left less evidence behind, at least that recognisable from aerial photographs (Stoertz 1997, 46). This gives us an apparent dichotomy: that while the Bronze Age people of the region were busy in the mammoth task of enclosing a massive landscape, they did not care to enclose their own settlements.

If the Wolds dykes are taken as evidence of the ring fencing of mixed topographic and land use territories as a response to for example, population pressure, then why are there so few defended enclosures (Manby *et al.* 2003, 77)? Such enclosures are supposed to be the '…focal points of territories defined by linear dykes' (Stoertz 1997, 69); a small Late Bronze/Early Iron Age defended enclosure at Paddock Hill, Thwing may be a candidate (Stoertz 1997, 69), but its relationship with land blocks defined by dykes is tentative and circumstantial. Other possible sites may not be contemporaneous with the dykes, and may simply be farmsteads or stock enclosures, rather than territorial centres (see Giles 2007, 108). Why if these areas are to do with large scale organised 'ranching' are there no smaller field systems or enclosures associated with paddocks and stock control at a local settlement level?

Environmental evidence from the south-eastern Argham Dykes suggests an environment of deciduous woodland at the time the primary fills were generated (Section 5.16). The ditch itself must have been cut through open land, so presumably the woodland was allowed to regenerate, which is the reverse of what is supposed to have happened in the region, with clearances covering greater and greater areas throughout the Bronze Age and into the Iron Age (e.g. BHWB 2003; ASWYAS 2004b). This area only appears to have been cleared again when settlement was established in the Mid to Late Iron Age. This indicates that while the course of the Argham Dykes was cleared, it did not 'open up new areas for cultivation' (Dent 1988, 94) as might have been expected if the original function of these dykes was for agricultural arable/pasture management (e.g. Challis and Harding 1975; Dent 1983a, 35; Stoertz 1997, 62), though this does not mean that the dykes did not adopt this function later on in their existence (see discussion on Phase 2).

Boundaries during the Early Bronze Age are thought often to have been defined by barrows, either by deliberately subdividing the landscape (Spratt 1990; Stoertz 1997, 65) or incidentally in the siting of them peripherally to settlement or 'territorial' areas. It has been suggested that the boundaries marked by barrows changed to dykes by the end of the Bronze Age (Spratt 1990, 152). Though barrows are often prominent in the modern landscape, it is likely that many would have been created within woodland clearings (Richmond 1999, i), and if they did form boundaries, they may not have been ones which would have been visible from any distance. It may be that the Argham Dykes' alignment and function did have something to do with the location of barrows as there is some evidence to suggest that the Argham Dykes may have been aligned on a barrow group, perhaps at Reighton or at Beacon Hill (Ford forthcoming and see also below), and this alignment may be the reason for the dykes' deviation towards the east, just north of Westfield Farm 0.5km to the south-east. The Argham Dykes also originate within the Neolithic landscape of Rudston, 11km to the south. Here there are up to five cursus monuments, the largest prehistoric standing stone in the country and numerous barrows. It may be that the ritual significance of this area has something to do with the Gypsey Race which is the only (seasonal) flowing water source in the Wolds (OS 1996, Fenton-Thomas 2005, 16); which also turns from flowing south, through ninety degrees to flow east at this point. Whatever later function the Argham Dykes may have performed, perhaps it is more than a possibility that their original purpose has something to do with the extraordinary ritual landscape from which they originate?

Prehistoric linear earthworks may have functioned as tracks or droveways. Mortimer observed of the Wolds dykes that some ran along steep-sided dales and could have acted as concealed ways hiding travellers from view both up and down slope (in Fenton-Thomas 2005, 34). The Argham Dyke ditches are large, over two metres deep, exceeding the size necessary to define a track or route across the landscape. Had there been a bank either side of the ditches, which has been suggested (ASWYAS 2004b, 8.3) they could have been over two metres above head height were you to walk along the six metre wide central track. This is very similar to Mortimer's idea of a 'concealed way'.

The course of the Argham Dykes forms a line which is roughly the shortest distance from where they originate at Rudston going north to the coast at Filey Bay. Water held a special significance during the Bronze Age, and in an area such as the Wolds such significance may have been heightened due to its scarcity, and it may be that the course of the Argham Dykes marks the course of a route to the coast, or a 'portal to the sea', a coast lined with numerous Bronze Age barrows. This route may have held a ritual significance, but it could also have been used as a route to marine resources at the coast. The deviation in the course of the dykes north of West Field Farm is followed by a footpath shown on the 1854 first edition Ordnance Survey map, and sections of the dyke were used in the medieval period as roads (e.g. at Argham; Riley 1988). Whether ritual or practical, the course of the Argham Dykes may represent mobility rather than the compartmentalisation of the landscape possibly associated with a sedentary lifestyle.

Water resources along the Wold edge are restricted to springs and the Gypsey Race, and it is here that populations were concentrated not only in the Iron Age (Dent 1983a, 35), but also in the medieval period (Manby *et al.* 2003, 70). Access to water resources could have fuelled conflict or been a source of ritual significance, encouraging co-operation; there is no evidence that the Argham Dykes had a defensive function, or necessarily that they were planned, conceived and executed by a central 'coercive power' as is suggested to have been the case in Late Bronze Age Wessex (Cunliffe 2003, 40; cf. Bradley *et al.* 1994, 152). Apart from a few small defended enclosures such as Staple Howe (e.g. Brewster 1963; Powlesland 1988), or Paddock Hill (Manby 1982, 83), there are no hill forts or major fortifications on the Wolds (Manby *et al.* 2003, 77), and this on its own suggests a very different social organisation to that of Wessex.

Whatever the precise date for the original cutting of the Dykes at Reighton, there is no

evidence for adjacent settlement activity until the Mid to Late Iron Age in the form of a roundhouse.

Roundhouse

A putative ring-gully was partially revealed by excavation in Area C. Unfortunately, its full extent was not within the excavation area and it was not possible to demonstrate that it definitively belonged to a roundhouse. However, the debris recovered from the ring gully and the date of the structure (see below) is consistent with that interpretation, and the 'ring ditch type' structure for roundhouses is typical of that found during to the 1st millennium BC in the region (Challis and Harding 1975, 144). A large amount of handmade pottery and a large amount of domesticated animal bone were recovered from the fill of the ditch (cattle, sheep, pig and horse), and some Iron Age pottery was recovered from two internal post-holes. The ring gully has been radiocarbon dated to 410-360 (cal) BC and 290-240 (cal) BC, (Beta 225781 Appendix 4). Interestingly, no wheel-turned Romano-British pottery was recovered from the fills of the ring gully though a large amount of handmade pottery was, along with an abraded sherd of an Early Bronze Age Collared Urn (1366). It is suggested that although the sherd from the collared urn is residual, it may have originated from a nearby Early Bronze Age barrow or pit (see Section 5.1). It is also worth noting that most of the pottery recovered from the ring gully was very similar to most of the handmade pottery recovered from the rest of the site (see Section 5.2).

The roundhouse may have been situated within an enclosure. Settlements were often constructed within enclosures in the Late Iron Age, often forming extensive 'ladder settlements' aligned along trackways such as those excavated at Garton and Wetwang Slack (Dent 1983b). A common settlement model for the period sees the gradual enclosure and nucleation of settlements during the Iron Age, with scattered settlement in the Early Iron Age becoming enclosed later, with Mucking, Essex being the common example cited (e.g. Dent 1982). It has been reported that at Wetwang Slack, early unenclosed settlement became enclosed by the 3rd or 2nd century BC (Dent 1983a), however, it must be borne in mind that enclosure does not have to be achieved by ditches alone, and hedges or fences could have provided security or demarcated certain areas if desired. Ditches may also give the appearance of having been single phase enclosures but may have been excavated for purposes of drainage, or to divide space up into different

'activity areas'.

Enclosure ditch

A large boundary ditch (Group 14) ran into the south-eastern Argham Dyke ditch. It may have used part of the dyke ditch as a convenient boundary for an appended enclosure which may have included the roundhouse. Unfortunately only a single sherd of Iron Age pottery was recovered from this ditch (secondary fill), the only animal bone recovered was from a tertiary fill and environmental evidence was similarly inconclusive for purposes of dating and phasing (section 5.15). The Argham Dyke does form the eastern limit of a large enclosure at Bell Slack near Rudston (Stoertz 1997, 60), so it is not inconceivable that a similar arrangement was the case at Reighton. The ditch (Group 14) was also recut in the later Iron Age and Romano-British periods, following a very similar line, and more obviously forming an enclosure. This at least provides circumstantial evidence that the earlier ditch had a similar function and that the roundhouse lay within an enclosure.

6.2 Phase 2: Late Iron Age Remains

This phase is subdivided into the recutting of the Argham Dykes ditches, a number of enclosure and field system ditches, and some pits, generally scattered about the site but particularly concentrated in Area A

Argham Dyke Recut (Phase 2a)

Both of the Argham Dykes ditches were recut, most probable at about the same time, as their depths and profiles are very similar. The original ditches and presumably the banks were still evident when they were recut as they follow the line of the original ditches very closely. Apart from a broad association of the pottery recovered from these recuts there is very little to associate them with the rest of the site.

The south-east Argham Dykes recut (Group 18), contained over 200 sherds of handmade pottery and animal bone consistent with settlement activity (see Section 5.15),

The north-west Argham Dykes recut (Group 24) contained much less animal bone and only a single sherd of handmade pottery. This disparity between fills could be because there was a barrier between the two ditches, either a bank created by the upcast from the

ditches or some other barrier such as a fence or a hedge, with settlement activity only occurring to the east of the ditch. It may have been the case that Argham Dykes formed a trackway in the Late Iron Age. Even if this function was incidental to their original function, it would help explain the dykes' longevity and it could also have been a spur to settlement in the area. The later recutting may have used the line of the original dykes as the basis for land division at a local level and once the land had begun to be divided (for agricultural purposes), it is more likely that settlement and associated agricultural activity would have become more permanent in the area, and developed and become extended in later periods, which appears to be the case at Reighton.

Enclosure Ditches (Phases 2b and 2c)

Two phases of a possible enclosure were partly revealed by the excavation, both following similar courses to an earlier ditch that ran into the south-east Argham Dyke ditch, but stopped about 15 metres short of it, possibly in order to form a track or droveway between the Argham Dyke and the enclosure. The areas enclosed by these ditches are not clear as they were only partly revealed by the excavation. The earliest ditch (Group 13) is only evident in Area B and does not appear to pass through the other excavation areas. The later ditch (Group 12) does appear to be part of a system of ditches which includes ditches in Area C, but as only very limited lengths of these ditches were revealed by excavation, such an association is very tentative, and even if an association is assumed, the layout of the enclosure or enclosures is not possible to determine. None of the fills of these ditches contained (presumably later) wheel-turned pottery, and as with the earlier ditch (Phase 1), bone and pottery assemblages typical of settlement activity were recovered (see Section 5.15).

Field System (Phase 2c)

Running parallel with the two phases of ditches in Area B were a number of other ditches (Groups 7, 8 and 9). Again these were only partially revealed, but possibly formed a field system which appeared to consist of at least three small enclosures or paddocks, with entrances leading from one to the other. The 7-10m gap, between these ditches and Ditch Group 13, may have formed a track or droveway. There is evidence that Ditch Group 13 had an external bank, with a kink in it being reflected in the opposite ditch (Groups 7 and 8). This kink is in fact exaggerated, suggesting that it had to maintain a distance from the

opposing ditch to preserve the track or drove way, spatially allowing for the bank of the other as well as its own external bank. Having an external bank would support the function of this field system as a series of paddocks and also suggest that the enclosure formed by Ditch Group 13 was not defensive but was constructed to keep livestock in. Dent suggests that rectilinear enclosures at Wetwang and Garton Slack may have been associated with stock rearing (Dent 1983b, 39), and Stoertz argues that the use of ditches to define paddocks and small plots is an increasing feature of the Iron Age (1997, 67). Again, animal bone and handmade but no wheel turned, pottery were recorded from these ditches. This system seems to have continued in modified form into the Romano-British period (Phase 3a).

Pits (Phase 2b)

A number of pits containing handmade pottery were recorded, principally within Area A. Together, with pits containing wheel-turned pottery and undated pits, they gave the impression of being within an enclosure (Fig. 7). As one of these pits contained an inhumation, it was originally thought that other pits in this area might prove to be graves, though this was not the case. The pits in this area were divided into two phases on the basis that some of the pits containing handmade pottery were truncated by Romano-British ditches. However, there is very little inter-cutting between pits, and though there is a wide variation in terms of size and profile they may be of closer date to each other than that indicated by the broad phasing scheme. One pit (1297) was radiocarbon dated to 150 to 140 (cal) BC and 110 BC to (cal) AD 60 (Beta 225780, Appendix 4), but Romano-British pottery was also recovered from this shallow pit including mortaria dated to the mid-2nd century. Considering the pottery evidence and the date of the other pits in this area, it seems more likely that this pit also dates to the later period (see also Section 7). More detailed discussion on the function of the pits can be found below (Section 6.3).

6.3 Phase 3: Romano-British Remains

This phase is divided into two sub-phases each comprising a field system and a number of pits, mostly confined to Area A. It is possible that some elements of the earlier field system survived and were maintained in the later period, though this is not supported by the pottery evidence, with Romano-British fabrics confined to stratigraphically later archaeological features and pits. In general, activity appears to have moved away from the

area around the Argham Dykes and seems more concentrated in the south and east of the site.

Pits (Phase 3a and undated)

Isolated or small groups of pits are common features of Iron Age and Romano-British sites, often within settlement enclosures. Pit concentrations are less common. One of the most well known pit concentrations in the region was excavated at Ledston, West Yorkshire in 1976, where 60 pits were excavated. These pits had regular sloping sides and flat bases, though without apparent standard plan, and with very little inter-cutting they were concentrated within an area apparently demarcated by ditches (Roberts 2005b, 10). The pits at Ledston are conventionally interpreted as for the storage of seed corn between harvests, indicating that the site was a central distribution area (Roberts 2005b, 32), though alternative suggestions for the function of these pits have also been advanced; such as to provide limestone to fertilise fields, or for the storage of meat, or, as burials were identified in some of the pits, for some ritual purpose (Roberts 2005b, 33).

Most of the pits at Reighton were recorded in Area A, and have a number of parallels with those excavated at Ledston; dimensions and profiles being similar and a lack of inter-cutting apparent, with most appearing to be within an enclosure. Two inhumations were discovered within pits at Ledston, while one was discovered at Reighton (ASWYAS 2004b), eight out of *c.* 300 pits at Micklelefield (OAN forthcoming) and seven out of 141 at Ferrybridge (Richardson 2005) were also found to contain human remains. It is likely that in most cases the use of pits for burials was a secondary function, though at Ledston one of the pits seemed deliberately to have been excavated as a grave. The inhumation at Reighton was interpreted as having also been from a grave (ASWYAS 2004b), but it there is no reason, given its similar morphology to the other pits, that this too was not a reused pit. That human remains were placed in pits, or that graves were excavated in areas of concentrations of pits introduces an element of ritual at these sites, as it is difficult to explain such actions merely on the grounds of utility. It may be that if pits were storage for grain, then such behaviour could have something to do with conceptions of 'regeneration' or 'fertility' (Bradley *et al.* 1994, 151).

As with other archaeological features, the interpretation of the function of the pits as grain storage pits at Ledston and elsewhere relies on analogy with similar features excavated in

the south, in this case particularly Danebury (Cunliffe 2003). The pits at Reighton, however, do not resemble the storage pits of Danebury (cf. Cunliffe 2003, 100, fig. 63), where they are much more massive and bell out at depth. It has been calculated that one of the storage pits at Danebury could feed six people for a year (Cunliffe 2003, 114). The more modest dimensions of pits at Reighton (and elsewhere) could simply reflect the more modest needs of a smaller group for a shorter period.

It is likely to have been the case that if large amounts of grain or other food-stuffs were stored, it would have been necessary to protect these resources, hence the location of grain storage pits within a hillfort at Danebury. The pits at Reighton appeared to be within an enclosure, however, this impression, may be misleading due to the limits of the excavation areas. It may be that pits were concentrated here, but that the enclosure is unrelated and is part of a later field system (see below), it is also difficult to conceive the putative enclosure as being defensive, as the ditches here are the smallest on the site (e.g. see Fig. 8). It is possible that some of the pits were footings for part of a structure which due to the limitations of the excavations has not been fully revealed. Alternatively, it may be that the pits were for the quarrying of chalk for the manufacture of lime to fertilise the fields, which is a likely function of pits dated to the medieval period (see below), although as Roberts points out in relation to the Ledston pits (Roberts 2005b, 33), bulk extraction from larger pits is more likely to have been the case, and at Reighton the medieval pits were massive compared to the prehistoric pits.

Field System (Phases 3a and 3b)

In common with the earlier field system, it is equally difficult to determine the layout of the field system which succeeded it (Fig. 12). There is a kink in the field system ditch (Group 6), but this is far less pronounced and may merely be a response to the residual remains of a bank and ditch from Ditch Group 12. Enclosure in prehistory is often cited as evidence of population pressure (in order to protect holdings), but it may also be the case that ‘de-enclosure’ occurs in order to expand agricultural activity (Dent 1988, 94). Ottaway argues that this may have occurred during the later 2nd and early 3rd century in the Wolds (2003, 147), and this may have been the case at Reighton, with the cutting of Ditch Group 6 expanding an area which may have formerly contained three (or more) paddocks. The entrance to this field system also appears to have been modified, now leading to a possible short track or droveway and turning into another possible field

system in Area A. This system may again have been modified and extended to the north (Phase 3b). Elements of this field system may also appear in Area C. Pottery evidence seems to point to their broad contemporaneity, though such is the distance between them and the remains in Area A and B (this is equally true of the earlier field system), and such is the difficulty in assigning close dates to the pottery of the period, contiguity cannot be demonstrated.

6.4 Iron Age and Romano-British Economy

Cattle, sheep and pig are well represented in both the Iron Age and Romano-British contexts, with more cattle and horse evident from the earlier phase (Section 5.15). Marine remains were not well represented despite the site being close to the coast. This may in part be due to the survival rate of such remains, or it may be the case that processing and consumption of such resources occurred elsewhere on the site in an area not excavated (see Conclusion). Small quantities of cereals were recovered, particularly from pits in Area A; barley, emmer or spelt wheat and durum were represented, and though not in large quantities, most likely derive from crop processing activities nearby, supporting the argument that the pits in Area A functioned as grain storage. It is likely that mixed farming was practised at the site during the Late Iron Age and that it continued into the Romano-British period, perhaps with an element of intensification evidenced by the modification and extension of the field system. It is no accident that such field systems are common on the Wold edge as it is here that springs emerge, essential for cattle and human populations, the Wold tops being dry because of the porous chalk (Fenton-Thomas 2005, 18). The field systems and extensive settlement of the area could have been quite extensive, with a possible contemporary settlement at 'The Willows' less than 1km to the west of Reighton (Chris Clay pers. comm.) and cropmarks possibly indicating other settlements on the slopes of the ridge both further west and east of the site (Stoertz 1997, map 2).

6.5 Phase 4: Medieval and Post-medieval Remains

This phase represents medieval and later agricultural activity. It is likely that the large pits (1083, 1087 and 1093) were excavated in order to quarry chalk to be used for an agricultural purpose, the chalk being crunched and mixed with the upper ploughsoil in order to reduce its acidity. Numerous 'chalk pits' are recorded in the area on the 1854 first

edition Ordnance Survey Map. This may suggest that pits from earlier phases may have had the same function.

The quarry pits were all recorded in Area B, whereas furrows appeared to be present only in Area C. This may reflect differential land use in these areas during this period.

6.6 Modern Remains

The two pillboxes recorded within the road corridor were well preserved examples of their type. Taking all the different types of pillboxes and anti-tank gun emplacements together as a category, there are 7951 such structures on the defence of Britain database for the whole of the United Kingdom (CBA 2007). Of these, 1149 are destroyed and 1,005 recorded as 'unknown', leaving an approximate figure of 6000 surviving pillboxes (CBA 2007), with most of these in southern England and the Midlands. The Defence of Britain database records 192 Type 26 pillboxes nationwide. Of those, none was recorded for East Yorkshire and only one is recorded in North Yorkshire; at Mill Farm, Muston, Scarborough, the condition of which is described as 'very bad' and which is threatened by 'immediate danger of destruction by coastal erosion' (ADS 2007). The two Reighton pillboxes were not recorded on the database, and were not recorded by the desk-based assessments of the proposed route (RPS Clouston 1993; BHWB 2003). It is only in recent years that monuments of this type and this period have become valued as part of the historic built environment. As the events of that period become progressively rare in living memory, such monuments will become increasingly important not only as an archaeological record but as permanent monuments to the collective memory of a dark period in the history of this country.

6.7 Undated Remains

Undated remains consisted of ditches and pits which contained no datable remains, were not radiocarbon dated, had no stratigraphic relationship with other archaeological features containing datable remains, or could not otherwise be associated with datable archaeological remains.

The most significant undated archaeological feature on the site was a partially revealed ring ditch (Group 16) in Area B. Only about 25 per cent of this feature was uncovered, however, it probably had an internal diameter of about 6-7 metres, too small to be the ring

gully of a roundhouse. For comparison, the ring gully in Area C had an internal diameter of 13-14 metres. Apart from two non-diagnostic flint flakes, no finds were recovered from this ditch. It is proposed that this ring ditch was the remains of a barrow of Bronze Age date. A very abraded Bronze Age Collared Urn was recovered from Area C and it is suggested that this pot had been redeposited and was most likely to have been derived from a cremation burial, which is suggestive of a barrow nearby (see Section 5.1).

A single ditch in Area A (Group 2) may have been part of the field system described above (Phases 3a and 3b), however, it is not quite in alignment and though it appears to respect one of the field system ditches it cannot be attributed to any phase and unfortunately remains undated.

7 Conclusion

7.1 Limitations of the evidence

The site at Reighton was very difficult to analyse statistically and it was difficult to make firm interpretative statements. This is because of the arbitrary nature of the shape and scale of the excavation areas. For example, it was not possible to reveal the whole of the ring gully in Area C, which would have been essential for its satisfactory interpretation; though this may be unavoidable on excavations of this sort, it may limit the excavator's ability to address the aims of the project. Little can be said about the size of the settlement, and extending phasing between areas is not entirely satisfactory. It is possible that if the whole area between the excavated areas had been excavated, the interpretation of the site and the phasing might have been very different. There is certainly enough pottery, environmental and faunal evidence to suggest that there was settlement nearby and that it was of fairly lengthy duration. However, only one 'roundhouse' was revealed by the excavation and this seems to be of an earlier date compared to rest of the site, though it must be noted that the pottery from the fills associated with the roundhouse were very similar to those recovered elsewhere on the site, particularly the enclosure ditches (see Group 23, Section 5.2).

7.2 Dating

Pottery has the potential to provide evidence of chronology, production, exchange and social organisation (Morris 1996). The pottery of the region during the Late Iron Age and

Romano-British periods has been described as an 'ill developed ceramic technology, without decoration and lacking distinctive characteristics' (Cunliffe 2005, 212). Spratt (1993, 155), talking about sites on the North York Moors, though he could equally be talking about the Wolds, states: '60% of sites produced locally-made crude pottery which could date from any time from the Late Iron Age to the end of the Roman period and beyond'. Populations may have gone through periods of accepting and rejecting (for whatever reason) Roman wheel-turned pottery, raising the possibility that contexts without wheel-turned pottery could conceivably be later. At Reighton the assumption that wheel-turned pottery is later is generally reinforced by stratigraphic relationships. This may not be the case on other sites, and it is essential that where stratigraphic relationships are in doubt or ambiguous, that excavators do not assume that technologically superior pottery is chronologically later.

The difficulty in getting a good resolution for radiocarbon dates for this period has been discussed before and compounds this difficulty (Mackey 2003, 120); ranges often being too great to be useful (e.g. Dent 1982, 439, fig. 2). In the case of pit 1297 from Reighton, radiocarbon dating (Beta 225780, Appendix 4), not only couldn't even determine whether the remains were 1st century AD or 2nd century BC but was at odds with pottery evidence which indicated a 2nd century AD date. Perhaps a more useful date range was provided for the putative roundhouse in Area C (G23): 410 to 360 (cal) BC and 290 to 240 (cal) BC (Beta 225781, Appendix 4). This context also contained a pottery fabric (H1) which was the most common across the site and the radiocarbon date supports the idea that some of the pottery is earlier than has hitherto been assumed. There is perhaps a danger that when Romano-British wheel-turned pottery is recovered from a site, then the handmade pottery is assumed also to be later. It could be that many sites, if not continuously occupied, were repeatedly occupied from a much earlier date, but that this is masked because of the continuum of pottery fabrics.

The long duration of calcite-tempered wares predominant in the Wolds area (Evans 1995, 50) presents problems differentiating pottery between the Early or Middle Iron Age and later Iron Age or Romano-British period, some commentators tentatively grouping some of these wares with the later period (e.g. Didsbury 2007), others considering the possibility that some are even Late Bronze Age (e.g. Vyner Section 5.3). The difficulties in dating not only have implications for the interpretation of individual sites, but also for

the interpretation of the archaeological landscape. Hundreds of enclosures are known from aerial photographs (Dent 1983a; Stoertz 1997). Romano-British artefacts are often found at such sites. Such artefacts are generally more common and more durable, and it is likely that many such enclosures and field systems could have originated earlier, particularly where sites are located adjacent to long distance linear earthworks or trackways (and most are, see Stoertz 1997, 53), and which may have been either in use or still been evident in the landscape and may have attracted repeated occupation (e.g. Dent 1983a, 39).

Pottery is relied upon for the dating and interpretation of almost all archaeological sites from all periods. This difficulty with the pottery is an enormous problem at Reighton, and other sites, and must be of concern to archaeologists. New methodologies need to be developed before Iron Age and Romano-British studies in the region can make progress beyond generalisations all too often reliant on southern examples. This is a problem which is being recognised (see Mackey 2003) and suggestions are being made for its solution (e.g. Mackey 2003; Evans 1995, 66; Cumberpatch, Section 5.2). It is to be hoped that future projects will be designed to take into account these difficulties and seek to address them.

7.3 Function

The imbalance between what is known about prehistoric society in different regions of Britain and how these regions are perceived is well known and does not need to be reiterated here (but see Collis 1996 for a summary of some of the issues). To some extent this imbalance has been addressed through synthetic studies (e.g. Challis and Harding 1975; Spratt 1993; Manby *et al.* 2003) and major programmes of excavation (e.g. Roberts *et al*. 2001; 2005a). Yet, in the absence of evidence, it is still tempting to interpret archaeological remains in terms of their southern counterparts. This is perhaps no more evident than in the interpretation of the 'long distance linear earthworks' which are so characteristic of the Wolds (e.g. Stoertz 1999, 62,). It is important that remains such as these are not subject to *a priori* interpretation, or flawed inductive reasoning such as; assuming these earthworks possess the same function when in fact no connection in terms of date or function has been demonstrated. Such earthworks as the Argham Dykes may have been in use for such a long period of time that an explanation cannot be reduced to a single use (Bradley *et al*. 1994, 150), possibly fulfilling a number of functions which may

have altered through time; an earthwork constructed in the Bronze Age may have continued in use as a convenient trackway or boundary well into the Romano-British period. It is the case that some of these linear earthworks, including the Argham Dykes have been adopted as boundaries or roads in the medieval period, in some cases continuing as field or parish boundaries to the present day (Riley 1988, 39, 9; Spratt 1993, 94).

The placing of the dykes in the landscape still needs to be explained on a regional level, this can only be done once data have been assembled on a site by site basis. Only then can similarities be identified and, hopefully, a chronology advanced. It is only when the Wolds' dykes are understood on their own terms that their meaning and their association with prehistoric social systems can be determined (see Barnatt 1998 for further discussion on this theme) and then they may be productively compared with 'similar' features in other archaeological landscapes.

Therefore, at the present time, the only safe conclusion to draw about the Wolds dykes is that they remain a mystery (Fenton-Thomas 2007).

7.4 Fulfilling the Aims of the Excavation

The aims of the excavation are detailed in Section 3 of this report and Appendix 5. Despite the limitations of the excavation and the problems with dating, discussed above, the project has been successful in fulfilling the stated project aims. The period specific aims detailed in the *Updated Project Design* (Appendix 5), have been partially fulfilled, with difficulties arising with the differentiation between Late Iron Age and Romano-British elements of the site. This difficulty was the result of problems with dating the ceramics and radiocarbon dating for this period. Recommendations have been made for improving the quality of data from future pottery assemblages of the period (see Cumberpatch, Section 5.3, particularly the discussion on rim type 2, the discussion on chronology and the conclusion) as this is crucial for advancing the study of this period regionally.

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9 Bibliography

ADS 2007, Archaeological Data Service, Defence of Britain Database http://ads.ahds.ac.uk/catalogue/specColl/dob/ai_q.cfm (Accessed 23/03/07)

Allen, C., 2004, 'Report on Early Bronze Age Pottery, Ferrybridge to Hookmoor, Site F/G on the A1', Report for Oxford Archaeology North

Allen, C., 2006, 'Report on Prehistoric Pottery and Fired Clay, Willows, Reighton, East Yorks', Report for Allen Archaeological Associates

Allen, C. and Hopkins, D., 2000, 'Bronze Age Accessory Cups from Lincolnshire: Early Bronze Age Pot?', *Proc. Prehist. Soc.* 66, 297-317

Allison, K. J., 1974, 'Reighton', in Allison, K. J., (ed.) *An History of the County of York: East Riding* 2, Victoria Histories of the Counties of England

Allason-Jones, L., 1989, 'Introductory remarks on native and Roman trade in the north of Britain' in van Driel-Murray C., (ed.) *Roman Military Equipment: the Sources of Evidence, Proceedings of the Fifth Roman Military Equipment Conference*. Br. Archaeol. Rep. Int. Ser. 476, 13-24

Association for Environmental Archaeology, 1995, 'Environmental Archaeology and Archaeological Evaluations – Recommendations Concerning the Environmental Archaeology Component of Archaeological Evaluations in England', Assoc. Environ. Archaeol.

ASWYAS, 2004a, 'Archaeological Recording Manual' Archaeological Services West Yorkshire Archaeology Service, unpublished

ASWYAS, 2004b, *A165 Reighton Bypass, Reighton, North Yorkshire: Archaeological Evaluation*, Archaeol. Serv. WYAS, unpubl.

ASWYAS, 2006a, A165 'Reighton Bypass: Project Design for a Scheme of Archaeological Works' Archaeol. Serv. WYAS, unpubl.

ASWYAS, 2006b, 'Watching Brief Guidelines', Archaeol. Serv. WYAS, unpubl.

ASWYAS, 2007, A165 'Reighton Bypass, Reighton, North Yorkshire, Excavation, Evaluation and Watching Brief Assessment Report and Updated Project Design', Archaeol. Serv. WYAS, unpubl.

Barnatt, J., 1998 'Monuments in the Landscape. Thoughts from the Peak', in Gibson, A., and Simpson, D. (eds), *Prehistoric Ritual and Religion*

BGS 2006, http://www.bgs.ac.uk, British Geological Survey, accessed 30/06/06

BHWB Ltd 2003, 'A165 Reighton Bypass, North Yorkshire: Updated Stage 2 Cultural Heritage Desk-top Assessment', unpubl.

Bidwell, P.T. and Croom, A., 1997, 'The coarse wares', in Wenham, L.P. and Heywood, B. *The 1968 to 1970 Excavations in the vicus at Malton, North Yorkshire*. Yorkshire Archaeol. Rep. 3, 61-103

Bishop M.C., 1988, 'Cavalry Equipment of the Roman Army in the First Century AD', in Coulston, J. C. N., (ed.), *Military Equipment and the Identity of Roman Soldiers, Proceedings of the Fourth Roman Military Equipment Conference*, Br. Archaeol. Rep. Int. Ser. 394, 67-195

Bishop, M.C. and Coulston, J.C., 1993, *Roman Military Equipment from the Punic Wars to the Fall of Rome*

Bishop, M.C., 1996, *Finds from Roman Aldborough: A Catalogue of Small Finds from the Romano-British Town of Isurium Brigantum*, Oxbow Monogr. 65

Bishop, M.C., 1999, 'An Iron Age and Romano-British 'Ladder' Settlement at Melton, East Yorkshire', *Yorkshire Archaeol. J.* 71, 23-64

Blinkhorn, P.W., 1997, 'Habitus, social identity and Anglo-Saxon pottery', in Cumberpatch, C.G. and Blinkhorn, P.W. (eds), *Not so much a pot, more a way of life*, Oxbow Monogr. 83

Boessneck, J., 1969, 'Osteological difference between sheep (*Ovis aiies Linne*) and goats (*Capra hircus Linne*)' in Brothwell, D. and Higgs, E. (eds), *Science in Archaeology*, 331-58 (New York)

Bradley, R., Entwistle, R., and Raymond, F., 1994, *Prehistoric Land Divisions on Salisbury Plain*: *The Work of the Wessex Linear Ditches Project*, Engl. Heritage Archaeol. Rep. 2

Brewster, T.C.M., 1963, *The Excavation of Staple Howe*

Brewster, T.C.M. and Finney, A.E., 1995, *The Excavation of Seven Bronze Age Barrows on the Moorlands of North East Yorkshire*, Yorkshire Archaeol. Rep. 1

Burley, E., 1955, 'A catalogue and survey of the metalwork from Traprain Law', *Proc. Soc. Antiq. Scotl.* 89, 118-226

Bushe-Fox, J.P., 1928, *Second Report on the Excavations of the Roman Fort at Richborough, Kent*

Cameron, R., 2003, 'Keys for the identification of Land snails in the British Isles', *Field Stud. Counc. Occas. Publ.* 79

Cameron, R.A.D. and Redfern, M., 1976, *British Land Snails: Synopses of the British Fauna* (New Ser.) 6

CBA 2007, Defence of Britain Project, http://www.britarch.ac.uk/projects/dob/, (Accessed 27/03/07)

Challis, A.J. and Harding, D.W., 1975, *Later Prehistory from the Trent to the Tyne*, Br. Archaeol. Rep. 20

Clarke, A., 1991, 'A165 Reighton Bypass: Archaeological Implications: Desk Top Study', unpubl.

Collis, J.R., 1996 'Across the Great Divide', in Champion, T.C. and Collis, J.R. (eds), *The Iron Age in Britain and Ireland: Recent Trends*, 41-66

Cool, H.E.M., 2002, 'An Overview of the Small finds from Catterick', in Wilson, P.R. (ed.), *Cataractonium: Roman Catterick and its hinterland. Excavations and research, 1958-1997*, Counc. Res. Rep. 129**,** Part 2, 35

Cool, H.E.M., 2007, *Eating and Drinking in Roman Britain,* Cambridge University Press

Corder, P., 1930, *The Roman Pottery at Throlam, Spalding-on-the-Moor, East Yorkshire*, Roman Malton Dist. Rep. 3

Corder, P., 1937, 'A pair of fourth century Romano-British kilns near Crambeck' *Antiq. J.* 17, 392-413

Corder, P. and Kirk, J.L., 1932, *A Roman Villa at Langton, near Malton East Yorkshire*, Roman Malton Dist. Rep. 4

Cox, M., 2000, 'Ageing adults from the skeleton', in Cox, M. and Mays, S. (eds), *Human Osteology in Archaeology and Forensic Science*, 61-82

Cunliffe, B., 2003, *Danebury Hillfort*

Cunliffe, B., 2005, (forth ed.) *Iron Age Communities in Britain*

Curle, A.O. and Cree, J.A., 1920, 'Account of the excavations on Traprain Law during the summer of 1920', *Proc. Soc. Antiq. Scotl,* 55, 158-206

Darling, M.J., 1999, 'Roman Pottery', in Colyer, Gilmour and Jones 1999, *The defences of the Lower City: Excavations at the Park and west Parade 1970-2 and a discussion of other sites excavated up to 1994*, Counc. Br. Archaeol. Res. Rep. 114**,** 52-123

Darling, M.J., 2004, 'Guidelines for the archiving of Roman Pottery', *J. Roman Pottery Stud.* 11, 67-74

Darling, M.J., 2006, 'Report on Pottery from Excavations at the Willows, Reighton, North Yorkshire', for Allen Archaeological Associates

Dent, J.S., 1982, 'Cemeteries and Settlement Patterns of the Iron Age on the Yorkshire Wolds', *Proc. Prehist. Soc.* 48, 437-57

Dent, J.S., 1983a, 'The Impact of Roman Rule on Native Settlement in the Territory of the Parisi' *Britannia* 14, 35-44

Dent, J.S., 1983b, 'A Summary of the Excavations Carried Out in Garton and Wetwang Slack 1964-1980', *East Riding Archaeol.* 7

Dent, J.S., 1988, 'Some Problems of Continuity of Rural Settlement' in Manby, T.G. (ed.), *Archaeology in Eastern Yorkshire: essays in honour of T, G. M. Brewster*

Dickinson, B., 1986, 'Potters' Stamps and Signatures on the Samian' in Miller, L., Schofield, J. and Rhodes, M., 1986, *The Roman Quay at St. Magnus House, London*, London Middlesex Archaeol. Soc. Spec. Pap. 8, 186-98

Dickson, J.A.D., 1965, 'A modified staining technique for carbonates in thin section' *Nature* 205, 587

Didsbury, P., 2004, 'The Iron Age and Roman Pottery', in Rahtz, P.A. and Watts, L., 2004, *Wharram: A Study of Settlement on the Yorkshire Wolds, IX. The North Manor Area and North-West Enclosure,* York Univ. Archaeol. Publ. 11, 139-83

Didsbury, P., forthcoming, *Report on the Iron Age pottery from Creyke Beck, Cottingham*, *East Yorkshire*, prepared for Northern Archaeological Associates

Didsbury, P., 2007, 'An assessment of the pottery from excavations on the A165 Reighton By-Pass, North Yorkshire' in ASWYAS

Didsbury, P. and Watkins, J.G., 1992, 'The pottery' in Evans D.H. and Tomlinson D.G. (eds) *Excavations at 33-35 Eastgate Beverley 1983-86*, Sheffield Excavation Rep. 3

Dobney, K., Hall, A.R., Kenward, H.K. and Milles, A., 1992, 'A working classification of sample types for environmental archaeology' *Circaea*: *J. Assoc. Environ. Archaeol.* 9, 24-6

Dungworth, D., 1999, 'EDXRF analysis of horse harness from the hoard', in Fitts, R J, Haselgrove, C C, Lowther, P C and Willis, S H 'Melsonby revisted: survey and excavation 1992–95 at the site of the discovery of the "Stanwick", North Yorkshire

hoard of 1843' *Durham Archaeol. J.* 14–15, 1-52

Earnshaw, J.R. and Watkins, J.G., 1984, *An excavation at Kirkgate, Bridlington,* Humberside Leisure Services

English Heritage, 1991, *The Management of Archaeological Projects* (2nd ed.)

English Heritage, 2002, *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-Excavation*

Elsdon, S.M., 1993, *Iron Age Pottery in the East Midlands: A Handbook*

Elsdon, S., 1996 'Iron Age pottery', in May, J., *Dragonby: Report on Excavations at an Iron Age and Romano-British Settlement in North Lincolnshire*, Oxbow Monogr. 61, 400-511

Ellis, A.E., 1969, *British Snails: A guide to the non-marine gastropoda of Great Britain and Ireland – Pleistocene to recent*

Evans, J., 1993, 'Pottery Function and Finewares in the Roman North', *J. Roman Pottery Stud.* 6, 95-119

Evans, J., 1995, 'Later Iron Age and 'native' pottery in the north-east' in Vyner, B. (ed.) *Moorland Monuments: Studies in the archaeology of north-east Yorkshire in honour of Raymond Hayes and Don Spratt*. Counc. Br. Archaeol., Res. Rep. 101

Evans, J., 1999,' The Hawling Road Ceramic series', Halkon, P. and Millett, M., 1999*Rural Settlement and Industry: studies in the Iron Age and Roman Archaeology of Lowland East Yorkshire*. Yorkshire Archaeol. Rep. 4, 200-218

Evans, J., 2001a, Iron Age, Roman and Anglo-Saxon pottery in Roberts, I., Burgess, A. and Berg, D., (eds.), *A new link to the past: the archaeological landscape of the M1 – A1 link road,* Yorkshire Archaeol. 7

Evans, J., 2001b, 'Material approaches to the identification of different Romano-British site types', in James, S. and Millett, M. *Britons and Romans: advancing an archaeological agenda,* 26-35*,* Counc. Br. Archaeol. Res. Rep. 125

Evans, J., 2005, 'Late Iron Age and Roman pottery', in Roberts I. (ed.) *Ferrybridge Henge: The ritual landscape,* Yorkshire Archaeol.

Faull, M. and Stinson, M., (eds) 1986, *Domesday Book*: *Yorkshire,* Surv. Counties Engl. 30

Fenton-Thomas, C., 2005, *The Forgotten Landscapes of the Yorkshire Wolds*

Fenton-Thomas, C., 2007, 'The Wolds Dykes: Mortimer and After' in Boughey K. *Prehistory Research Section Bulletin* 44, Yorkshire Archaeol. Soc.

Freestone, I.C. and Humphrey, M.S., 1992, *Report on the petrology of prehistoric pottery from Staple Howe, Yorkshire*

Freestone, I.C. and Middleton, A.P., 1991 'Report on the petrology of pottery from Iron Age cemeteries at Rudston and Burton Fleming', in Stead, I.M., (ed.), *Iron Age cemeteries in East Yorkshire: Excavations at Burton Fleming, Rudston, Garton-on-the-Wolds and Kirkburn*, Engl. Heritage Archaeol. Rep. 22, 162-64

Ford, L., forthcoming, 'Reighton Sands Holiday Park, Filey, North Yorkshire Archaeological Desk-based Assessment', Archaeological Services WYAS, unpubl.

Gelling, M., 1978, *Signposts to the Past: Place-names and the History of England*

GeoQuest Associates, 2003, 'Geophysical survey of areas within the easement of the proposed A165 Reighton Bypass, Reighton, North Yorkshire', unpubl.

Gibson, A., 2002, *Prehistoric Pottery in Britain and Ireland*

Gibson, A. and Kinnes, I., 1997, 'On the urns of a Dilemma; Radiocarbon and the Peterborough Problem', *Oxford J. Archaeol.* 16(1), 65-72

Giles, M., 2007, 'Refiguring Rights in the Early Iron Age Landscapes of East Yorkshire' in Haselgrove, C. and Pope, R. *The Ealier Iron Age in Britain and the Near Continent, Oxbow, Oxford, 103-118*

Gillam, J.P., 1970, *Types of Roman Coarse Pottery in Northern Britain*, (3rd edition),

Goddard, E.N., Trask, P.D., De Ford, R.K., Rove, O.N., Singewald, J.T. and Overbeck, R.M., 1948, *Rock-color Chart* (Boulder, Colorado)

Halstead, P., 1985, 'A study of mandibular teeth from Romano-British contexts at Maxey' in Pryor F., French, D., Crowther, D., Gurney, D., Simpson G., and Taylor, M., *Archaeology and Environment in the Lower Welland Valley Volume 1*, 219-24

Halkon, P. and Millett, M., 1999, *Rural Settlement and Industry: studies in the Iron Age and Roman Archaeology of Lowland East Yorkshire*. Yorkshire Archaeol. Rep. 4

Haselgrove, C.C., Lowther, P.C. and Willis, S.H., 1999, 'Melsonby Revisited: survey and excavation 1992-95 at the site of discovery of the "Stanwick", North Yorkshire, Hoard of 1843', *Durham Archaeol.l J.* 14-15, 1-52

Hayes, R.H. and Whitley, E., *The Roman Pottery at Norton, East Yorkshire*, Roman Malton Dist. Rep. 7

Hayfield, C., 1988, 'Cowlam deserted village: a case study of post-medieval village desertion' *Post-Medieval Archaeol.* 22, 21-109

Hayfield, C., 1992, 'The medieval pottery industries at Staxton and Potter Brompton, East Yorkshire' *Yorkshire Archaeol.l J.* 64, 49-82

Hill, J.D., 1995, *Ritual and rubbish in the Iron Age of Wessex,* Br. Archaeol. Rep. Br. Ser. 242

Hingley, R., 1990 'Iron Age 'currency bars': the archaeological and social context', *Archaeol. J.* 147, 91-117

IFA 1999, *Guidelines for Finds Work,* Institute of Field Archaeologists

IFA 1994a, (Revised September 2001) *Standards and Guidance for Archaeological Field Evaluation,* Institute of Field Archaeologists

IFA 1994b, (Revised September 2001) *Standards and Guidance for an Archaeological Watching Brief*, Institute of Field Archaeologists

IFA 1995, (Revised September 2001) *Standards and Guidance for Archaeological Excavation*, Institute of Field Archaeologists

IFA 2001, *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*, Institute of Field Archaeologists

Kent, P., 1980, *British Regional Geology, Eastern England from the Tees to the Wash*

Kerney, M., 1999, *Atlas of the land and freshwater molluscs of Britain and Ireland*

Kerney, M.P., and Cameron, R.A.D., 1979, *A field guide to the land snails of Britain and North-West Europe*

Kilbride-Jones, H.E., 1980, *Celtic Craftsmanship in Bronze*

Leary, R.S., 2003, 'Armthorpe Romano-British pottery and ceramic building debris', Report for Archaeological Services WYAS

Leary, R.S., 2005, 'Holme Hall quarry, Stainton, Romano-British pottery', Report for ARCUS

Leary, R.S., 2006, 'The Romano-British pottery from excavations at Tiln, Nottinghamshire 2005', Report for Trent and Peak Archaeological Unit

Leary, R.S., forthcoming, 'The Romano-British pottery', in Brown, F., Howard-Davis, C.H. and Lupton A.A., *Road through time: Archaeological Investigations along the route of the A1(M) Darrington to Dishforth road Scheme*

Le Patourel, H.E.J., 1979, 'The Medieval Pottery', in Andrews, D.D., and Mills, G. (eds), *Wharram: A Settlement on the Yorkshire Wolds,* Medieval Monograph Series 8, 74-104

Longworth, I.H., 1984, *Collared Urns of the Bronze Age in Great Britain and Ireland*

Mackey, R., 2003, 'The Iron Age in East Yorkshire: a summary of current knowledge and recommendations for future research' in: Manby, T., Moorhouse, S. and Ottaway, P., *The Archaeology of Yorkshire: An Assessment at the Beginning of the 21st Century*, Yorkshire Archaeol Soc., Occas. Pap. 3

MacGregor, M., 1962, 'The Early Iron Age Metalwork Hoard from Stanwick, N.R. Yorkshire', *Proc. Prehist. Soc.* 28, 17-57

MacGregor, M., 1976, *Early Celtic Art in Northern Britain*

Manby, T.G., 1975, 'Neolithic Occupation Sites on the Yorkshire Wolds', *Yorkshire Archaeol. J.l* 47, 23-59

Manby, T.G., 1980, 'Bronze Age Settlement in Eastern Yorkshire', in Barrett, J and Bradley, R. (eds), *The British Later Bronze Age*, Br. Archaeol. Rep. 83, 356-70

Manby, T.G., 1982, 'Thwing Excavations 1981', *Yorkshire Archaeol. Soc. Prehistoric Research Section Bulletin,* 23, 3-7

Manby, T.G., 1988, 'The Neolithic in Eastern Yorkshire', in Manby, T.G. (ed), *Archaeology in Eastern Yorkshire*, *essays in honour of T, G. M. Brewster*, 35-88

Manby, T.G., King, A. and Vyner, B.E., 2003, 'The Neolithic and Bronze Ages: a Time of Early Agriculture', in Manby, T., Moorhouse, S. and Ottaway, P., *The Archaeology of Yorkshire: An Assessment at the Beginning of the 21st Century*, Yorkshire Archaeol. Soc., Occas. Pap. 3, 35-116

Mays, S. and Cox, M., 2000, 'Sex determination in skeletal remains', in Cox, M. and Mays, S. (eds), *Human Osteology in Archaeology and Forensic Science*, 117-30

Meadows, K., 1997, 'Much ado about nothing: the social context of eating and drinking in early Roman Britain', in Cumberpatch, C.G. and Blinkhorn, P.W. (eds) *Not so much a pot, more a way of life*. Oxbow Monogr. 83

Monaghan, J., 1997, 'Roman Pottery from York', *The Archaeology of York* 16/8

Morris, E., 1996, 'Artefact production and exchange in the British Iron Age' in Champion, T.C. and Collis, J.R. (eds), *The Iron Age in Britain and Ireland: Recent Trends*, 41-66

Mortimer, J.R., 1905, *Forty Years Researches in British and Saxon Burial Mounds of Yorkshire*

Museums and Galleries Commission, 1992, *Standards in the Museum Care of Archaeological Collections*

Needham, S.P., 1996, 'Chronology and Periodisation in the British Bronze Age', *Acta Archaeologia* 67, 121-40

OA(N), forthcoming, *Mickelfield*, Oxford Archaeology (North)

Orton, C.R., 1980, 'Introduction to the pottery reports', in Jones, D.M., *Excavations at Billingsgate Buildings 'Triangle', Lower Thames Street 1974,* Trans.London Middlesex Archaeol.Soc. Spec. Pap. 4

OS 1996, *Landranger, Scarborough* Ordnance Survey Sheet 101, 1:50,000

Oswald, F., 1936-37, *Index of Figure Types on Terra Sigillata*, University of Liverpool Annals of Archaeology and Anthropology, Supplement

Ottaway, P., 2003, 'The Archaeology of the Roman Period in the Yorkshire Region'. in Manby, T., Moorhouse, S. and Ottaway, P., *The Archaeology of Yorkshire: An Assessment at the Beginning of the 21st Century*, Yorkshire Archaeol. Soc., Occas. Pap. 3

Payne, S., 1969, 'A metrical distinction between sheep and goat metacarpals' in Ucko P.J. and Dimbleby D. W. (eds), *The Domestication and Exploitation of Plants and Animals,* 295-305

Payne, S., 1973, 'Kill-off patterns in sheep and goats: the mandibles from Asvan Kale' Anatolian Studies 23, 281-283

Payne, S., 1985, 'Morphological distinctions between the mandibular teeth of young sheep, Ovis and goats, Capra' *J. Archaeol.l Sci.* 12, 139-47

PCRG, 1997, 'The study of Later Prehistoric Pottery: General Policies and Guidelines for Analysis and Publication', Prehist. Ceramics Res. Gr. Occas. Papers 1 and 2

Peacock, D.P.S., 1977, *Pottery and early commerce*

Perrin, R., 1990, 'Roman pottery from the Colonia: 2'. *The Archaeology of York* 16/4

Powlesland, D.J., 1988, 'Staple Howe and its Landscape', in Manby, T.G. (ed.), *Archaeology in Eastern Yorkshire: essays in honour of T.G.M. Brewster*

Quartermaine J., 1994, 'A165 Reighton Bypass, North Yorkshire: Stage 2 Archaeological Assessment and Landscape Report' Lancashire University Archaeological Unit, unpubl.

Richmond, A., 1999, *Preferred Economies,* Br. Archaeol Rep. 290

Richardson, J., 2005, 'The Pit Alignment', in Roberts, I. (ed.), *Ferrybridge Henge: The Ritual Landscape. Archaeological Landscape of the M1 -A1(M) Link* Road, Yorkshire Archaeol. 10

Rigby, V., 1980, 'Coarse pottery', in Stead, I.M., *Rudston Roman Villa*, 45-94

Rigby, V., 1986, 'The Later Prehistoric and Roman Pottery', in Powlesland, D, 'Excavations at Heslerton, North Yorkshire 1978-82', *Archaeol. J.* 143, 141-56

Riley, D.N. (ed.), 1988, *Yorkshire's Past from The Air*

Roberts, I, Burgess, A. and Berg, D. (eds.), 2001, *A New Link to the Past: The Archaeological Landscape of the MA-A1 Link Road*, Yorkshire Archaeol. 7

Roberts, I. (ed.), 2005a, *Ferrybridge Henge: The Ritual Landscape. Archaeological Landscape of the M1 –A1(M) Link Road*, Yorkshire Archaeol. 10

Roberts, I. (ed.), 2005b, *The Iron Age Settlement at Ledston: A Report on the Excavations of 1976 and 1996*, Archaeological Services WYAS Publications 7

Rogers, G.B., 1974*, Poteries Sigillées de la Gaule Centrale I: les motifs non figurés*, Gallia Supplement 28

RPS Clouston, 1993, A165 'Reighton Bypass: Environmental Assessment and Landscape Report'

Savory, H., 1993, 'Strap Hook', in Blockley, K., Ashmore, F., and Ashmore, P., 'Excavations on the Roman Fort at Abergavenny, Orchard site 1972-73', *Archaeol. J.* 150, 211-4

Scheuer, L. and Black, S., 2000a, 'Development and ageing of the juvenile skeleton', in Cox, M. and Mays, S. (eds), *Human Osteology in Archaeology and Forensic Science*, 9-22

Scheuer, L. and Black, S., 2000b, *Developmental Juvenile Osteology*, (San Diego)

Sheppard, T., 1907, 'Note on a British Chariot Burial at Hunmanby, in East Yorkshire', *Yorkshire Archaeol. J.* 19, 482-88

Silver, I.A., 1969, 'The ageing of domestic animals' in Brothwell, D. and Higgs, E. (eds), *Science in Archaeology*, 283-302

Slowikowski, A. M., 2000, 'The Anglo-Saxon and Medieval pottery' in Stamper, P.A. and Croft R.A. (eds), *Wharram. A study of settlement on the Yorkshire Wolds*, *VII: The South Manor Area,* York Univ.Archaeol. Publ. 10

Slowikowski, A.M. 2004, 'The Anglo-Saxon and Medieval pottery', in: Rahtz, P.A. and Watts L. (eds), *Wharram. A study of settlement on the Yorkshire Wolds*, *IX*: *The North Manor Area and North-West Enclosure:* York Univ. Archaeol. Publ. 11

Smith, A.H., 1937 *Place Names of the East Riding of Yorkshire and York*, English Place-Name Society, vol. 14

Society of Museum Archeologists, 1993, *Selection, Retention and Dispersal of Archaeological*

Collections: Guidelines for use in England, Northern Ireland, Scotland and Wales, Soc. Mus. Archaeol.

Society of Museum Archeologists, 1995, *Towards an Accessible Archaeological Archive, The Transfer of Archaeological Archives to Museums: Guidelines for use in England, Northern Ireland, Scotland and Wales*, Soc. Mus. Archaeol.

Spratt, D.A. (ed.), 1990, *Prehistoric and Roman Archaeology of North-East Yorkshire*, Counc. Br. Archaeol., Res. Rep. 87

Spratt, D.A., 1993, 'Prehistoric and Medieval Boundaries on the North York Moors', in Le Patourel, H.E.J., Long, M.H. and Pickle,s M.F. (eds), *Yorkshire Boundaries*, 85-94

SSEW, 1983, *Soil Survey of England and Wales*, Sheet 1 Northern England, **(**Scale 1:250,000**)**

Stace, C., 1997, *New Flora of the British Isles*, (2nd ed.)

Stanfield, J.A. and Simpson, G., 1958, *Central Gaulish Potters*

Stoertz, C., 1997, *Ancient Landscapes of the Yorkshire Wolds: Aerial photographic transcription and analysis*, R. Comm. Hist. Monuments Engl.

Sumpter, A.B., 1990, 'Pottery from the Well', in Wrathmell, S. and Nicholson, A., *Dalton Parlours Iron Age Settlement and Roman Villa,* Yorkshire Archaeol. 3, 234-44

Swan, V.G., 2002, 'The Roman pottery of Yorkshire in its wider historical context', in Wilson, P. and Price J. (eds) *Aspects of Industry in Roman Yorkshire and the North,* 35-79

Tibbles, J., forthcoming, *A History, Manufacture and Usage of Ceramic Land Drains*

Thomas, J., 1999, *Understanding the Neolithic*

Tomber, R. and Dore, J., 1998, *The National Roman Fabric Reference Collection: A Handbook*, Mus. London Archaeol. Serv. Monogr. 2

Toynbee, J.M.C., 1973, *Animals in Roman Life and Art*, London

United Kingdom Institute for Conservation, 1990, *Guidelines for the Preparation of Excavation Archives for Long term Storage*

United Kingdom Institute for Conservation, 2001, *Excavated Artefacts and Conservation,* U.K. Inst. Conserv. Guideline 1

Vince, A., 2006, 'Petrological Analysis of Prehistoric Pottery from Reighton, East Yorkshire', for Allen Archaeological Associates

Walton Rodgers, P., 1997, *Textile Production at 16-22 Coppergate*, Archaeol. York 17**,** 1687-1867

Wardle, P., 1991, *Earlier Prehistoric Pottery Production and Ceramic Petrology in Britain*, Br. Archaeol. Rep. 225

Watkins, J.G., 1987, 'The Pottery' in Armstrong, P. and Ayers, B. (eds), *Excavations in High Street and Blackfriargate*, *Hull Old Town,* Rep. Ser. 5, East Riding Archaeol. 8, 53-181

Watkins, J.G., 1991, 'The pottery' in Armstrong, P., Tomlinson, D. and Evans D.H., *Excavations at Lurk Lane, Beverley 1979-1982*, Sheffield Excavation Rep. 1

Watkinson, D. (ed.), 1987, *First Aid for Finds*

Webster, G., 1982, 'The Swords and pieces of equipment from the grave', in Bennett, P., Frere, S.S. and Stow, S., 'Excavations at Canterbury Castle', *Archaeol. Canterbury* 1, 185-88

Wheelhouse, P., 2006, 'Contract and Specification for Archaeological Works – A165 Reighton Bypass', Golder Associates (UK) Ltd, unpubl.

Whynne-Hammond, C., 1992, *Tracing the History of Place Names*

Wikipedia, 2007, http://en.wikipedia.org/wiki/British_hardened_field_defences_of_World_War_II, (Accessed 27/03/07)

Wild, J.P., 1970, 'Button-and-loop fasteners in the Roman Provinces', *Britannia* 1, 137-55

Wilson, P.R. (ed.), 2002, *Cataractonium: Roman Catterick and its hinterland. Excavations and research, 1958-1997*, Counc. Br. Archaeol. Res. Rep. 129