

Rossington Inland Port, Phase 2 Doncaster, South Yorkshire

Post-excavation assessment and updated project design



Planning Ref: 09/00190/OUTA Ref: 114503.1 March 2019

wessexarchaeology



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Document Information

Document title Document subtitle Document reference		Rossington Inland Port, Phase 2, Doncaster, South Yorkshire Post-excavation assessment and updated project design 114503.1					
Client name			CgMs Consulting				
Address			CgMs, Sherwood House, Sherwood Avenue, Newark, Nottinghamshire, NG24 1QQ				
Site lo	ocation		Rossington				
Count	.У		South Yorkshire				
National grid reference (NGR)		459130 497450					
Statut	ory designations		None				
Plann	ing authority		Doncaster Metropolitan Borough Council				
Plann	ing reference		09/00190/OUTA				
Muse	um name		Doncaster Museum				
Muse	um accession co	de	TBC				
WA p	roject name		Rossington Inland Port				
WA p	roject code(s)		114500, 114501, 114502,	114503			
Date(s) of fieldwork			19 September to 18 October 2016, 28 November 2016 to 31 March 2017, 24 April to 7 July 2017				
Fieldv	vork directed by		Phil Weston				
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Graph	nics by		Ian Atkins and Alix Sperr				
Quali	ty Assurance						
Issue	& issue date	Status		Author	Approved by		
1 31/05/2018 Draft su		Draft su	bmitted to client	PW	Ltb		
2	26/03/2019	Respon	se to client comments	PMRD 8 PW	L too		
3 29/03/2019 Respon		Respon	se to client comments 2	PMRD 8 PW	btb		

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Summary

Wessex Archaeology was commissioned by CgMs Consulting to carry out a programme of archaeological investigations on the site of Rossington Inland Port, South Yorkshire. The work was carried out in order to meet a planning condition relating to the Inland Port development (Planning application ref. 09/00190/OUTA; condition 13).

The archaeological investigations took the form of excavation of 29 strip, map and excavation areas (occupying some 10 hectares in total), a programme of archaeological trial trenching, and a watching brief on additional areas within the development. This document presents the results of the strip, map and excavation exercise and watching briefs, with an interim report of the archaeological trial trenching appended to this document and the results incorporated into the main text.

The total development area occupies approximately 125 hectares (centred on National Grid Reference 459130 397450) and is bounded to the north by St Catherine's Well Stream, to the east by the canalised course of the River Torne and to the south and west by open agricultural land. Its western part is bisected by a local railway line running on a north-north-east to south-south-west course.

The work revealed sparse earlier prehistoric remains comprising a background scatter of residual struck flint and pottery. A pair of small post-built sub-rectangular enclosures has also been tentatively ascribed a prehistoric date, due to local comparators. There is more evidence of activity in the Iron Age, with some of the field boundary ditches and ring ditches dated to this period on ceramic grounds. The majority of the pottery, however, dates to the Romano-British period, when the site contained an extensive system of enclosures, fields and trackways, with associated evidence of settlement and agri-/industrial activity, chiefly comprising furnace bases and crop drying kilns.

The pottery assemblage weighs 135 kg and is relatively large for a rural site in South Yorkshire not involved in ceramic production. The assemblage includes good groups of late Iron Age ceramics, although the majority of the material dates to the 2nd and 3rd century AD, with smaller quantities of late Roman pottery also present. Other finds include animal bone, coins, metal objects (including at least one tool), quern fragments and personal ornaments including a fine hairpin. As with the pottery assemblage, the majority of these other artefacts appear to date to the Romano-British period. Post-Roman remains were scarce and chiefly consist of ceramics and relict field boundary ditches, although features of obviously post-medieval or modern date were not targeted during the fieldwork.

The value of the site lies largely in its ability to provide detail on the archaeological character of the farming and settlement of this part of South Yorkshire during the late Iron Age and Romano-British period. Due to the palaeoenvironmental evidence recovered from the site (in the form of both waterlogged and charred plant assemblages) it will be possible to set these remains in their environmental context: the site has the potential to provide information on the nature of the settlement, the local environment, local agricultural practices and crop husbandry techniques.

This post-excavation assessment describes the archaeological results and presents the results of the initial assessment of the artefactual and palaeoenvironmental assemblages. Updated questions to guide ongoing analysis are identified; recommendations for further work are presented, leading to the publication of the site, and deposition of the archive at an appropriate local museum.



Acknowledgements

Wessex Archaeology extends its thanks to CgMs Consulting Ltd for commissioning the archaeological investigations, in particular to Chris Harrison for his communication and assistance throughout. Wessex Archaeology is grateful for the advice of Andrew Lines of the South Yorkshire Archaeology Service, who monitored the project for Doncaster Metropolitan Borough Council. Wessex Archaeology is also grateful to the employees of Buckingham Group for their cooperation and help on site during the excavation.

The environmental samples were processed by Liz Chambers, Mary Marshall, Callum Bruce, Matt Tooke, Stavroula Fouriki, Ifigenia Klopa and Hector Smith. The flots were sorted by Nicki Mulhall and assessed by Inés López-Dóriga. The sediments in the monolith samples were described by Liz Chambers. The pottery was assessed by Ian Rowlandson, with Hugh Fiske, and Gwladys Monteil (samian). The human bone was assessed by Jacqueline I. McKinley and the animal bone was assessed by Lorrain Higbee. All other finds were assessed by Lorraine Mepham.



Rossington Inland Port, Doncaster, South Yorkshire

Post-excavation assessment and updated project design

1 INTRODUCTION

1.1 **Project and planning background**

- 1.1.1 Wessex Archaeology was commissioned by CgMs Consulting to undertake three phases of archaeological investigation on land to the south-west of Rossington and east of Wadworth, South Yorkshire. The development area, comprising 125 ha, is centred on National Grid Reference (NGR) 459130 397450 and is crossed by a local railway line running north-north-east to south-south-west, and by Carr Lane, which follows a west-south-west to east-north-east course (Fig. 1).
- 1.1.2 Planning permission (Planning application ref. 09/00190/OUTA) for the construction of an 'Inland Port' (a Strategic Rail Freight Interchange) was granted by Doncaster Metropolitan Borough Council, following advice from South Yorkshire Archaeology Service. Condition (13) of the application states:

Prior to development being carried out within a relevant phase, an archaeological evaluation of the land within that phase shall be undertaken in accordance with a written scheme of investigation which has previously been submitted to and approved in writing by the LPA. Such evaluation shall if necessary set out a mitigation strategy in relation to matters of archaeological interest, including the carrying out of any further archaeological investigation works and/or preservation in situ of matters of archaeological interest and such mitigation strategy shall be agreed in writing by the LPA and approved scheme shall thereafter be implemented.

1.1.3 The development area has previously been the subject of a Desk-Based Assessment (CgMs 2009) and a geophysical survey (Headland 2016).

Phase 1

1.1.4 The phase 1 investigations comprised the strip, map and sample (SMS) excavation of an 8 ha parcel of land lying immediately south of St Catherine's Well Stream, which forms the northern limit of the development area.

Phase 2

1.1.5 Phase 2 consisted of the excavation of 105 evaluation trenches dispersed across the remainder of the development, many of which were targeted on cropmark and geophysical anomalies. A summary of the results of the trenching has previously been produced (Wessex Archaeology 2017a), with a copy reproduced as appendix 6 to the rear of this report.

Phase 3

1.1.6 Phase 3 comprised the excavation of 28 strip, map and sample areas identified through analysis of the cropmark and geophysical data and the findings of the evaluation trenches. At the time of the phase 2 evaluation, it was not possible to excavate trenches 17 to 20 due to the presence of a large topsoil bund. It was agreed, therefore, to maintain a



watching brief during the mechanical stripping of an almost 4 ha parcel of land immediately south of the St Catherine's Well Stream SMS area.

1.1.7 Two Written Schemes of Investigation (WSI) were prepared (CgMs 2016; Wessex Archaeology 2017c). These outlined strategies and methodologies to mitigate the impact of the development on the archaeological resource as the project developed. The WSIs were approved by Andy Lines (South Yorkshire Archaeology Service, SYAS) and Doncaster Metropolitan Borough Council. The excavation of the SMS areas was undertaken between December 2016 and July 2017.

1.2 Scope of the report

1.2.1 The purpose of this report is to provide the provisional results of the Phase 1–3 schemes of work, and to assess the potential of the results to address the research aims outlined in the WSIs. Where appropriate, it will recommend a programme of further analysis work, and outline the resources needed to achieve the aims (including the revised research aims arising from this assessment), leading to dissemination of the archaeological results via publication and the curation of the archive.

1.3 Location, topography and geology

- 1.3.1 The development area is located 3 km west of the centre of Rossington, 1 km to the east of Wadworth and 5 km south-east of the centre of Doncaster in South Yorkshire (Figure 1). The development area is bounded to the north by St Catherine's Well Stream, to the east by the canalised course of the River Torne and to the south and west by open agricultural land. Its western part is bisected by a local railway line running on a north-north-east to south-south-west course
- 1.3.2 The development area is generally low-lying with its high point of 13.5 m aOD located at the mid-point of its western boundary. From here the ground falls away to 8.2 m aOD to the south, to 3.9 m aOD to the north and 4.2 m aOD to the east.
- 1.3.3 The solid geology of the development area is recorded as sandstone of the Nottingham Castle Formation. Alluvium (clay, silt, sand and gravel), and River Terrace Deposits (sand and gravel) (BGS 2017).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

2.1.1 The Site has been the subject of a desk-based assessment (CgMs 2009). The following section is a summary of the archaeological background detailed in the initial WSI (CgMs 2016).

2.2 Prehistoric

- 1.1.1 Mesolithic artefacts (SYAS04926) and a Neolithic axe head (SYAS01812/01) have been found in the vicinity of the Site. Palaeochannels of the former Lake Humber (filling in prior to 9050 BC) were located north of the M18 and the area was very likely wetland and fencarr during this period.
- 1.1.2 The Bronze Age in the area is represented by the discovery of two round barrows during the Rossington Colliery excavation 1.2 km to the east of the development area (Roberts and Weston 2016).



2.3 Iron Age–Roman

- 2.3.1 Evidence of Iron Age settlement activity was identified during the Rossington Colliery excavation where a large Iron Age enclosure formed the basis of an aggregated complex of enclosures that developed through the later Iron Age and Roman period (Roberts and Weston 2016).
- 1.1.3 Rossington Roman fortress was located about 2 km east of the Site. The fortress was an early foundation, established in the AD 50s. One of the most northerly military centres in Roman Britain at the time, it formed a base for the subsequent conquest of the north (Roberts 2010, 67). A pottery manufacturing complex with associated settlement lay to the south and east of Doncaster in the Romano-British period, with known kiln sites at Auckley, Blaxton, Cantley and Rossington Bridge.
- 1.1.4 Cropmarks indicating enclosures and field boundaries have been identified within the Site and across the local landscape. Several hectares of this wider cropmark landscape have been archaeologically investigated, principally during Phase 1 of the Rossington Inland Port development and in advance of the adjacent FARRRS road scheme. The remains relate to Romano-British agriculture, but an Iron Age inception for some of the field systems seems likely (Powell *et al.* in prep., Daniel in prep., Wessex Archaeology 2016a and 2017b).

2.4 Saxon–Medieval

- 1.1.5 St Catherine's Well Stream forms the boundary between the parishes of Loversall and Wadworth. Loversall is first mentioned in Domesday (1086) and is thought to derive from the Old English personal name Leofhere and *-halh*, meaning 'Leofhere's nook of land'. Domesday records mentions a manor at Wadworth by the name of Wad(d)a and *-worð*, meaning 'Wad(d)a's enclosure'. There is, however, no physical evidence of Anglo-Saxon activity within the Site.
- 1.1.6 Rossington is first mentioned in 1183, and is thought to derive its name from the Welsh *rhos*, meaning 'a moor', and the Old English *–tun*, meaning 'a farmstead'. The name might mean 'the farmstead on the moor'.
- 1.1.7 A lack of medieval remains within the wider area indicates a marshy marginal landscape without settlement. Cornelius Vermuyden undertook a drainage project in the early 17th century.
- 1.1.8 The area was converted into arable farmland after the drainage of the area in the early 19th century. During the early 20th century the railway crossing the western part of the Site was constructed.

2.5 **Previous investigations**

Geophysical survey

1.1.9 The development area was the subject of a geophysical survey, which identified two unenclosed sub-circular features, enclosures and field systems typical of the Iron Age and Romano-British periods as well evidence of medieval ridge and furrow ploughing and post-medieval enclosure (Headland 2016).

Evaluation trenching

1.1.10 Subsequent to the findings of the geophysical survey and watching brief, a programme of evaluation trenching was undertaken across the remainder of the development area. This



involved the excavation of 105 50 x 2 m evaluation trenches. This investigation confirmed the presence of a field system, trackways and associated enclosed areas of occupation and/or settlement. Material culture recovered during the evaluation trenching was almost entirely Romano-British in date (Wessex Archaeology 2017a). Overall the results of the trenching largely confirmed the accuracy of the geophysical survey in identifying archaeological remains across the site. An interim report on the trenching was produced in February 2017, with that document appended to this report (appendix 6). Where relevant to the findings of the excavation areas, the results of the trenching have been incorporated into the text below.

3 AIMS AND METHODS

3.1 Original project aims

- 3.1.1 With due regard to the CIfA *Standard and guidance for an archaeological excavation* (CIfA 2014a), the research aims of the excavation, as stated in the original WSI (CgMs 2016) were to:
 - to determine the location, extent, date, character, condition and quality of any surviving archaeological remains, particularly any archaeological anomalies identified by the geophysical survey;
 - to establish the ecofactual and environmental potential of archaeological deposits and features encountered.
- 3.1.2 The specific aims of the archaeological excavations were:
 - to determine the location, extent, date, character, condition, significance and quality of any archaeological remains;
 - to record all archaeological remains encountered;
 - to consider the site within its local, regional, and national context as appropriate;
 - to deposit the site archive with an appropriate museum;
 - to provide information for the local HER to ensure the long-term survival of the excavated data.
- 3.1.3 The aims of the watching brief and strip, map and sample excavations as set out in the 2017 WSI (Wessex Archaeology 2017c) were to confirm the results of the geophysical survey, and characterise any unexpected deposits (nature, date, complexity and extent).

General objectives

- 3.1.4 The general objectives of the project as stipulated in the 2017 WSI were:
 - to record, as far as is reasonably possible, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains observed;
 - to provide sufficient information to enable an informed decision to be made about the need for additional archaeological mitigation;
 - to make available the results of the work.

3.2 Methods

Introduction

- 3.2.1 All works were undertaken in accordance with the detailed methodology set out within the WSIs (CgMs 2016; Wessex Archaeology 2017c) and in general compliance with the standards outlined in CIfA guidance (CIfA 2014a). The methods employed are summarised below.
- 3.2.2 Following analysis of the cropmark data, the results of the geophysical survey and the findings of the evaluation trenching, 28 areas were identified that were deemed to require further investigation. It was also decided to maintain a watching brief during the topsoil strip of a 3.8 ha parcel of land either side of St Catherine's Well Stream and directly to the south of the Phase 1 strip, map and sample excavation. A consideration of the topography of the site also played a role in selecting areas for further study, as following discussions between the CgMs Consulting and SYAS, it was felt that areas above the 5 m OD contour had a higher potential for settlement-related archaeological remains.
- 3.2.3 The 28 areas were located in order to examine areas of potential occupation and/or settlement and to explore the development of the associated field system and trackways. All SMS areas were excavated in furtherance of the project's Aims and Objectives (see above), namely, determining the extent, date, character, condition and quality of the archaeological component of the areas, as well as in the hope of retrieving artefacts and environmental remains capable of elucidating the ancient environment and economy. More specifically: ditch intersections were targeted in an effort to establish the chronology of the field systems, as well as to retrieve artefacts for absolute dating; corners and entranceways of field systems were targeted to locate potential structured/ceremonial deposits (which are often found in such locations); and, trackways were investigated to test the hypothesis that these may have been the earliest and longest-lived elements of the field systems. The reasoning for excavating ring ditches and potential settlement areas is self-evident.
- 3.2.4 The areas were subjected to strip, map and sample (SMS) excavation and Table 1 below outlines the rationale for each area.

SMS	Area (m ²)	Target features	Height m OD
1	3090	Elements of a field system	4.4
2	560	Two ring ditches	7.4
3	115	Ditch intersection	4.4
4	105	Ditch intersection	4.5
5	100	Projected continuation of field boundary ditch	5.1
6	90	Potential ditch intersection	5.1
7	95	Field corner and ditch intersection	5.0
8	200	Potential trackway elements	5.4
9	225	Parallel ditches forming a trackway	5.1
10	40	Parallel ditches forming a trackway	5.0
11	625	Confluence of a trackway and elements of a field system	4.6
12	5270	Focused on a rectangular enclosure appended to a field boundary ditch	6.3
13	2155	Focused on an area of settlement activity	6.5
14	1050	Trackway and elements of a field system	5.6
15	135	Parallel ditches forming a trackway	
16	55	Parallel ditches forming a trackway	5.6

 Table 1
 Targets/rationale for strip, map and sample excavations and watching brief

SMS	Area (m ²)	Target features	Height m OD
17	55	Parallel ditches forming a trackway	5.7
18	310	Ditch potentially defining an area of settlement	11.1
19	95	Ditch intersection 9	
20	365	Corner of a field boundary ditch	
21	390	Ditch intersection	14.6
22	245	Corner of a field boundary ditch and potential entrance	15.9
23	165	Corner of a field boundary ditch	
24	60	Parallel ditches forming a trackway	
25	65	Parallel ditches forming a trackway	
26	65	Parallel ditches forming a trackway	
27	90	Parallel ditches forming a trackway	
28	6055	Parallel ditches forming a trackway	
SCWS SMS	с. 80000	Continuation of cropmark features/palaeochannel	3–4
SCWS WB	38355	Watching brief maintained during the mechanical stripping of land close to the northern limit of the development area, south of St Catherine's Well Stream	
Bridleway WB	900	Continuation of cropmark/SMS features	11.6

Fieldwork methods

- 3.2.5 The excavation areas were laid out using GPS, in the same position as that proposed in the relevant WSI. The topsoil/overburden was removed by a 360° excavator fitted with a toothless bucket, under constant archaeological supervision. Machine excavation proceeded in level spits until the archaeological horizon or the natural geology was exposed, which ever was encountered first. Dumpers were used to transport and stockpile the overburden.
- 3.2.6 Where necessary, archaeological features and deposits were cleaned by hand to aid visual definition. Archaeological features and deposits were sample excavated to sufficiently address the aims of the project. The excavation strategy is detailed in Table 2 below:

Feature/deposit type	Excavation strategy
Pre-modern linear features not associated	20% of length to include all terminals, intersections
with structural remains	and other relationships
Discrete features and pits	All discrete features were recorded as half-sections
	before being excavated 100%
Ring ditches or roundhouse gullies	50% of fill
Layers/spreads/stratified deposits	Excavation in spits using running sections, half
	sections or grid system as appropriate

Table 2 Excavation strategy

3.2.7 Spoil derived from both machine stripping and hand-excavated archaeological features was visually scanned for the purposes of finds retrieval, with extensive use also made of a metal detector. Where found, artefacts were collected and bagged by context. All artefacts from excavated contexts were retained, except those from features or deposits of obviously modern date. In such circumstances, sufficient artefacts were retained in order to elucidate the date and/or function of the feature or deposit.



- 3.2.8 All archaeological features and deposits were recorded using Wessex Archaeology's pro forma recording system. A full drawn record of excavated features and deposits was made including both plans and sections drawn to appropriate scales (generally 1:20 or 1:50 for plans and 1:10 for sections), with reference to the overall surveyed site plan. The OD heights of all principal features and levels were calculated, and added to plans and section drawings.
- 3.2.9 The location of archaeological features was surveyed by GPS (with an accuracy of at least 0.05 m for both vertical and horizontal position), and thereby tied into the OSGB36 British National Grid coordinate system.
- 3.2.10 A photographic record was made using digital cameras equipped with an image sensor of not less than 10 megapixels. Digital images have been subject to managed quality control and curation processes which will embed appropriate metadata within the image and ensure long term accessibility of the image set. Monochrome 35mm film photography also formed part of the photographic record.

Artefactual and environmental strategies

3.2.11 Appropriate strategies for the recovery, processing and assessment of artefacts and environmental samples were in line with those detailed in the WSIs (CgMs 2016; Wessex Archaeology 2017c). The treatment of artefacts and environmental remains was in general accordance with: *Guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA 2014b) and *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (English Heritage 2011).

Human remains

3.2.12 Potential human remains were removed under the terms of a Licence for the Removal of Human Remains held by Wessex Archaeology (Ref: 17- 0128 dated 25/05/17). The excavation and post-excavation assessment of human remains was in accordance with Wessex Archaeology protocols, and undertaken in line with current guidance documents (eg, McKinley 2013) and the standards set out in ClfA Technical Paper 13 (McKinley and Roberts 1993).

3.3 Monitoring

3.3.1 Chris Harrison of CgMs Consulting and Andy Lines of the South Yorkshire Archaeology Service, on behalf of Verdion Group Ltd, monitored the excavation. Any variations to the WSIs, in order to fully address the excavation aims, were agreed in advance with both CgMs representing their client and with the South Yorkshire Archaeologist.

4 STRATIGRAPHIC RESULTS

4.1 Introduction

Summary of archaeological features and deposits

- 4.1.1 The following is a summary of the information held in the Site archive. Area locations are shown on Figure 2.
- 4.1.2 In the text below, the acronym CG ('Context Group') is used as prefix to indicated grouped features, ie, archaeological entities that were investigated with multiple interventions.

Methods of stratigraphic assessment and quantity of data

- 4.1.3 All hand written and drawn records from the excavation have been collated, checked for consistency and stratigraphic relationships. Key data has been transcribed into an Access database for assessment, which can be updated during any further analysis. The excavation has been preliminary phased using stratigraphic relationships and the spot dating from artefacts, particularly pottery.
- 4.1.4 Table 3 (below) provides a quantification of the records from the excavation.

Туре	Quantity
Context records	1227
Context registers	49
Graphics (A4 and A3)	173
Graphics (A1)	-
Graphics registers	22
Environmental sample registers	7
Object registers	2
Digital photographs	9327

 Table 3
 Quantification of excavation records

4.2 SMS1

- 4.2.1 The deposit sequence in SMS1 consisted of superficial grey-yellow, sandy clay with gravel overlain either directly by a dark brown topsoil or by a patchily surviving subsoil.
- 4.2.2 Four ditches (ditches CG10-13) and four discrete features were identified in SMS1 (Fig. 3). Ditch CG10 correlated strongly with a feature evident as a cropmark and a geophysical anomaly. The width and depth of ditch 10 varied along its length, reaching maximums of 2.6 m and 0.4 m respectively.
- 4.2.3 Ditch CG11 ran approximately parallel to ditch 10 37.75 m to the south. Ditch CG11 was much more regular in section than ditch CG10, being generally 0.8 m wide and 0.3 m deep.
- 4.2.4 Ditch CG12 entered SMS1 close to the north-east corner of the excavation. Ditch CG12 was observed to cut ditch CG10. It was generally 1.5 m wide and attained a maximum depth of 0.3 m.
- 4.2.5 Ditch CG13 was exposed in the far north-east corner of SMS1. It was generally 1.2 m wide, 0.3 m deep and corresponded with a feature evident as a cropmark and geophysical anomaly. It was intercepted and investigated 43 m to the north of SMS1 in trench 1 (400103: 1.8 x 0.55 m)
- 4.2.6 The ditches contained one-to-three peaty fills reflecting the periodically wet conditions in this part of the development area. None of the ditches in SMS1 contained datable finds but to judge by their correlation with cropmark and geophysical anomalies, they were part of the wider Iron Age/Romano-British agricultural landscape.
- 4.2.7 The discrete features, 2049, 2054, 2064 and 2068, were located towards the southeastern limit of the excavation. The features varied in diameter from 0.48 to 1.2 m and in depth from 0.07 m to 0.43 m. Whether they were of archaeological or natural origin remains unresolved.

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4.3 SMS2

- 4.3.1 The deposit sequence in SMS2 consisted of superficial grey-yellow sandy clay with gravel overlain either directly by a dark brown topsoil or by a patchily surviving subsoil deposit.
- 4.3.2 SMS2 revealed a partial ring ditch (ditch CG14) with 10 internal pits/postholes, a continuous ring ditch (ditch 15) with five internal pits/postholes and, external to the ring ditches, two short sections of gully (gullies 16 and 17), a pit and a posthole (Fig. 4). The ring ditches and associated internal features likely represent the remains of two Romano-British roundhouses.
- 4.3.3 Ritch ditch CG14 had an internal diameter of 7 m, enclosed an area of 37.88 m² and had a 3 m wide entrance to the north-west (Pl. 1). The ditch varied between 0.6 m and 0.82 m in width, between 0.1 m and 0.3 m in depth and contained one or two clayey fills in each of the seven excavated sections (Fig. 5).
- 4.3.4 The finds assemblage from ditch CG14 consisted of handmade pottery of probable 1st to early 2nd-century AD date, fired clay, animal bone and an iron object.
- 4.3.5 The features internal to ditch CG14 varied between 0.45 m and 0.25 m in diameter, 0.05 m and 0.24 m in depth and each contained a single sandy clay fill. Only posthole 3010 contained finds and these consisted of pottery and animal bone. The pottery dated to the Iron Age suggesting a prehistoric origin for the structure.
- 4.3.6 Gully 3064 and possible fire pit 3062 were located close to the centre of the roundhouse and shared an indeterminate relationship, suggesting gully 3064 may have been created by raking out the fire pit. Fire pit 3062 was oval in plan measuring 0.99 m by 1.2 m by 0.33 m deep. Burnt stone and animal bone were recovered from the pit.
- 4.3.7 Ring ditch CG15 was sub-circular in plan, attaining a maximum diameter of 9.9 m, a minimum of 8.44 m and enclosed an area of 67.2 m² (Pl. 2). The ditch varied between 1.0 m and 1.58 m in width, between 0.25 m and 0.5 m in depth and contained one or two clayey fills in each of the nine excavated sections (Fig. 5). Initial investigation of the feature identified two termini (3029 and 3051) 3.5 m apart and forming a north-west facing entrance. However, as these features were excavated, they were found to have been cut through a layer of redeposited natural clay, indicating an earlier feature had been backfilled in order to create the new north-west facing entrance. This evidence, and that derived from the excavation of section 3055 between the termini, indicated that the north-west facing entrance either superseded an earlier unidentified entrance elsewhere around the circumference or that ditch 15 had originally formed a complete circuit and access to the interior was gained by a piece of wood laid across the ditch.
- 4.3.8 The finds assemblage from ditch CG15 consisted of pottery, fired clay, animal bone and a quernstone fragment. The pottery assemblage was dominated by 1st to 2nd-century material consistent with that recovered from ditch CG14. There was, however, a small assemblage of Iron Age pottery. This was recovered from section 3055 between the termini and the termini themselves, and suggests that the earlier incarnation of the ring ditch dated to the Iron Age.
- 4.3.9 Five postholes were identified internal to ditch CG15. Three of the postholes (3038, 3040 and 3042) were close to the centre of the ring ditch and varied between 0.25 m and 0.35 in diameter and were uniformly 0.2 m deep. The remaining two features were located close to the ring ditch termini. Posthole 3058 was sub-oval in plan (0.54 m by 0.28 m by

0.13 m deep) whilst 3060 was 0.48 m in diameter and 0.3 m deep. Each of the five postholes contained a single sterile clayey fill.

- 4.3.10 Gully CG16 (4.55 m by 0.6 m by 0.23 m deep) was located immediately to the north of ring ditch 14. A single clayey fill was recorded in the two excavated sections and 1st to early 2nd-century Romano-British pottery was recovered from the feature.
- 4.3.11 Gully CG17 (8 m by 0.55 m by 0.20 m deep) was located 1.85 m to the north of gully CG16. A single sterile, clayey fill was recorded in the three excavated sections. Gully CG17 had a short section of gully (3046) on its northern side. The southern terminus of gully 3046 (1.1 m by 0.4 m by 0.25 m deep) abutted the northern limit of gully CG17 suggesting the features were contemporary. Animal bone was recovered from the basal fill of gully 3046.
- 4.3.12 Pit 3048 (1.7 m by 0.88 m by 0.39 m deep) was located directly to the north of gully CG17. It contained two clayey fills the basal on which contained 1st to early 2nd-century Romano-British pottery.
- 4.3.13 The base of a burnt-out posthole (3093) was located just to the north of pit 3046. It was 0.3 m in diameter and 0.05 m deep. No finds were recovered.

4.4 SMS3

- 4.4.1 The deposit sequence for SMS3 through to SMS11 was as that described for SMS1 and 2. SMS3 was located at the corner of a rectilinear field apparent as a cropmark and a geophysical anomaly (Fig. 6).
- 4.4.2 The excavation of the intersection between ditch CG18 (2.1 m wide by 0.41m deep) and ditch CG19 (1.4 m wide by 0.2 m deep) indicated that the features were contemporaries. The clayey fills of both ditches were devoid of finds.
- 4.4.3 The potential continuation of ditch CG19 was intercepted and investigated in two trenches. Within trench 3, 80 m to the north of SMS3, it appeared to be recut (400304/400307), whereas within trench 4, 16 m to the south of SMS3, a single cut was recorded (400403; 1.5 x 0.4 m).

4.5 SMS4

- 4.5.1 SMS4 was located at the corner of a rectilinear field and was placed in order to test the relationship between ditch CG18 and ditch CG20 (Fig. 3). Hand excavation at the intersection indicated that ditch CG20 (2.0 m wide by 0.28 m deep) was cut by ditch CG18. The clayey fills of both ditches were devoid of finds.
- 4.5.2 Ditch CG18 was also exposed in trench 7 (400706/400711/400716), which lay between SMS3 and 4. Two fragments of animal bone were recovered, the only finds from the entirety of ditch CG18.
- 4.5.3 SMS4 also identified a large north–south aligned field boundary apparent on the 1st edition Ordnance Survey map.

4.6 SMS5

4.6.1 SMS5 (not illustrated, but see Fig. 2) was located in order to examine whether the ditch (5504) in trench 55 continued southward to intersect with ditch CG21 (seen in trench 57 and SMS6). In the event, only ditch CG21 was identified in SMS5.



4.7 SMS6

4.7.1 SMS6 targeted the intersection of ditches CG21 and CG22 (both generally 1.1 m wide by 0.3 m deep), which had been exposed in trenches 56 (5603) and 57 (5703; 5706). (Fig. 7). A 65 m long section of ditch CG22 was apparent as a cropmark and a geophysical anomaly. Excavation of SMS6 identified both ditches and investigation of the intersection indicated that the ditches were contemporaries. The clayey fills of both ditches were devoid of finds.

4.8 SMS7

- 4.8.1 SMS7 was located in order to investigate the corner of a rectilinear field evident as a cropmark and geophysical anomaly (Fig. 8). Excavation of SMS7 revealed two ditches; ditch CG23 and ditch CG24.
- 4.8.2 Ditch CG23 formed the right angle at the corner of the field and it was up to 1.4 m wide, 0.7 m deep. Ditch CG24 (generally 1.2 m in width and 0.3 m in depth) terminated short of the corner of the field bounded by ditch 23. The clayey fills of both ditches were devoid of finds.
- 4.8.3 Both ditches were also exposed trench 62 (6203 and 6209), which lay close to the northern side of SMS 7.

4.9 SMS8–SMS11

- 4.9.1 SMS8–11, along with trenches 23 and 28, were located in order to examine the parallel ditches of a 210 m-long trackway intermittently apparent as cropmarks and geophysical anomalies (Fig. 9).
- 4.9.2 The excavations revealed that ditch CG26 was 1.6 m wide by 0.6 m deep (max.) and contained two clayey, sterile fills, whereas its neighbour to the south, ditch CG27, was a much more substantial feature measuring up to 2.5 m wide by 0.85 m deep. It contained two clayey, sterile fills. Some evidence of recutting was noted along ditch CG27. Within SMS8, the upper fill of ditch CG27 was cut by gully 2127, which entered the excavation area from the south before turning west and following the westward course of ditch CG27. Gully 2127 contained a single clayey, sterile fill and was 1 m wide and 0.32 m deep.
- 4.9.3 Investigations in SMS9 revealed some phasing within elements of the field system. Ditch CG28 (1.72 m wide by 0.6 m deep) projected for 7 m from the northern trench wall, where it was cut by the northern trackway ditch (ditch 26).
- 4.9.4 Trench 23 was located 25 m west of SMS8 and over the cropmark continuation of the trackway, but no features were noted.

SMS11

- 4.9.5 SMS11 was located where the geophysics and cropmark data suggested the trackway examined in SMS8–10 ended (Fig. 10). The excavation revealed that the trackway opened up in to the south-west corner of a field. The northern trackway ditch, CG26, entered SMS11 from the west-south-west then turned through 90° towards the north-north-west to form the western boundary of the field. The southern trackway ditch, ditch CG27, terminated at the north-west corner of a second field to the south-east of the first.
- 4.9.6 The corner of the southern field was defined by ditch CG25. Ditch CG25 was visible as a cropmark and geophysical anomaly. Excavation of ditch CG25 identified a feature generally 1.8 m wide and 0.75 m deep. Investigations at the north-west corner of the field



identified the terminus of ditch CG27, which stopped 1.5 m short of ditch CG25. It is possible that the gap provided access to a further field or enclosure to the south-west. This access point, however, may have been short lived as a second terminus (2327) was identified that linked ditch CG27 to ditch CG25, thus closing the opening.

- 4.9.7 Gully CG29 (0.7 m wide by 0.2 m deep) was also identified in SMS11. It was aligned north-west to south-east and its south-east terminal fell 1 m short of ditch CG25. Its north-west terminal could not be defined as gully CG29 ran in to a highly disturbed area close to the corner of ditch CG26. It is possible that gully CG29 was placed to restrict flow of livestock in to the field at the end of the trackway or perhaps it served as a short-term measure to keep livestock contained in the field.
- 4.9.8 Several other features (2316, 2331, 2334, 2336, 2340, 2342 2347 and 2349) were identified and investigated within SMS11 but these were found to be either natural features or derived from heavy rooting and/or burrowing. Except for animal bone recovered from the intersection of ditch CG29 and disturbance 2340, none of the features contained finds in their sandy clay fills.

4.10 SMS12

- 4.10.1 SMS12 (Fig. 11–12) was located on a slightly raised area of land where the geophysics data and evaluation trenching (trenches 21, 24 and 25) indicated there was an enclosure. The deposit sequence differed in SMS12 from the previous areas. Here, the natural geology consisted predominantly of red silty sand with pockets of gravel overlaid by a light brown subsoil up to 0.5 m deep which in turn was sealed by 0.3 m of top/plough soil. Natural clay deposits were encountered at the far western edge of SMS12 overlaid by 0.3 m of top/plough soil. The mechanical stripping of SMS12 revealed three ditches, an enclosure, one short gully, three discrete features and a large area of modern agricultural truncation.
- 4.10.2 Ditch CG30 entered SMS12 at its south-east corner and ran on a south-south-east to north-north-west alignment for almost 70 m before exiting the excavation (Fig. 12). It varied between 2.3 m and 1 m in width, 0.63 m and 0.24 m in depth and contained between one and six silty sandy fills reflecting variable plough truncation across the Site. The same truncation may well be the reason for the apparent entrance to the enclosure in its northern corner. Here, the two opposing termini progressively shallowed out to nothing, suggesting the termini may have only existed in the particularly deep subsoil in the portion of the site and that they originally formed a narrower gap. It is possible ditch CG30 is the same feature as ditch CG28 excavated in SMS9 to the south-south-east and apparent as a cropmark.
- 4.10.3 Enclosure ditch CG31 was appended to the west side of ditch CG30 (Fig. 11). Ditch CG31 was almost 140 m long forming a 65 m by 18 m rectangular enclosure encompassing an area of almost 1200 m². The ditch varied between 2 m and 0.55 m in width, 0.75 m and 0.3 m in depth and contained between one and five silty sand fills, again reflecting variable agricultural truncation.
- 4.10.4 Ditch CG33 was appended to the west-south-west side of enclosure CG31. It was 7.5 m in length and formed a small 13 m² enclosure open to the south. It was generally 0.8 m wide, 0.3 m deep and contained a single clayey fill in each of the excavated sections.
- 4.10.5 The final ditch, ditch CG32, entered SMS12 from the east-north-east and extended 19 m before turning through 90° to the north-north-west and extending for a further 9 m (Fig. 12). It varied between 1.4 m and 0.72 m in width, 0.64 m and 0.25 m in depth and contained



either one or two sandy fills in each of the excavated sections. Ditch CG32 was observed to cut ditch CG30. The north-eastward continuation of ditch CG32 was investigated in the St Catherine's Well Stream watching brief area (see below).

4.10.6 The remaining features in SMS12, gully 2382 and discrete features 2364, 2366 and 2396, were investigated but found to be most likely natural in origin. None of the ditches and discrete features in SMS12 produced any finds.

4.11 SMS13

4.11.1 SMS13 was located on a vague and slight east-west ridge immediately to the east of the railway and was focused on the linear geophysical anomaly (1526) previously investigated in trench 15 (Fig. 13–14). Excavation of 1526 had produced a substantial (2041 g) assemblage of Romano-British pottery. The underlying superficial natural deposits consisted of sandy clay to the south and clayey sand to the north, separated be a thin band of weathered limestone. These deposits were overlaid by a dark brown, 0.3 m deep topsoil with a 0.2 m deep sandy subsoil in the northern part of the SMS. The mechanical stripping of SMS13 revealed the corner of an enclosure defined by ditches CG34, CG44 and CG40/41, which contained a smaller sub-enclosure (ditch CG35), further ditches CG36–9 and CG42–7, twelve discrete features, three areas of trample, the base of a kiln and a large deposit of animal bone. The presumed western extent of the enclosure was likely destroyed by the construction of the railway.

Main enclosure ditch CG34, CG44 and CG40/41

4.11.2 The partially revealed enclosure was delineated to the south and east by curvilinear ditch CG34 (of which ditch 1526 from evaluation trench 15 formed a part) and by ditches CG40 and CG41 to the north. Ditch CG34 was generally 1.6 m wide, 0.8 m deep and contained between two and three fills (PI. 3).

CG34 and CG44

- 4.11.3 At the southern limit of SMS13, the east to west aligned portion of enclosure ditch CG34 turned through 90° and exited the limit of excavation to the south. Ditch CG44 was appended to the west of the resulting corner. Ditch CG44 was generally 0.75 m in width, 0.28 m deep and contained a sterile sandy clay fill. No relationship between ditches CG34 and CG44 was apparent, suggesting they were contemporaries.
- 4.11.4 At its northern limit, ditch CG34 terminated 3.75m short of the east–west ditch CG40 and recut CG41, creating an access point to the enclosure. There was little evidence of ditch CG34 having been recut.
- 4.11.5 Pit 2240 (1.32 x 0.17 m) was cut in to the upper fill of the south-west corner of enclosure ditch CG34 (Fig 14: section 13.1). Pit 2240 was oval in plan and contained two fills; the basal contained a sherd of Romano-British pottery. The upper fill consisted of clay baked to a bright orange. There was no evidence of *in situ* burning so the deposit is likely a hearth or kiln lining that was dumped into the pit.
- 4.11.6 A large finds assemblage consisting of over 7.5 kg Romano-British pottery and 452 g of animal bone was recovered from ditch CG34, strongly suggesting that it defined an area of settlement activity. The pottery was a mixed assemblage, ranging in date from the early Romano-British period to the late 3rd to 4th century AD, the majority being from the later period.



- 4.11.7 The northern terminus of ditch CG34 was sealed beneath an amorphous spread of clayey sand material (2155) up to 0.24 m in depth. Deposit 2155 is thought to represent an area of trample and erosion caused by footfall at the access point to the enclosure. A small assemblage of Romano-British pottery including grey ware was retrieved from deposit 2155.
- 4.11.8 Manual removal of deposit 2155 to identify the terminus of ditch 34 also revealed the bottom of two flat-bottomed pits or postholes (2160 and 2162). Both features were approximately 0.5 m in diameter and only 0.03 m deep. Their function is not clear due to the level of truncation but they may represent the base of postholes that once held timbers that augmented the ditch terminus.

<u>CG40/41</u>

- 4.11.9 Ditch CG40, superseded by ditch CG41, defined the northern limit of the enclosure. Ditch CG40 was generally 1.6 m wide, 0.7 m deep and contained up to four sandy fills. The finds assemblage recovered from ditch CG40 consisted of pottery dating to the mid-2nd century or later and animal bone.
- 4.11.10 Ditch CG40 was recut by ditch CG41 (Fig. 13, Section 13.2, Pl. 4). Ditch CG41 was up to 2.25 m in width, 0.55 m deep and contained between one and four sandy fills. The finds assemblage recovered from ditch CG41 consisted of ceramic building material, animal bone and pottery probably deposited in the second half of the 3rd century AD. At its western end, ditch recut CG41 cut the north–south ditch CG47 (see below).
- 4.11.11 Gully 39 ran approximately parallel to the line of ditches CG40/41 Gully 39 was 10.8 m long, generally 0.6 m wide by 0.18 m deep and contained a single, sandy fill in each of the excavated sections. Pottery recovered from gully CG39 consisted of a small assemblage of mid-2nd-century date.
- 4.11.12 Reworking of the boundary represented by ditches CG40 and 41 was evidenced by a number of gullies and postholes (eg, gully CG39, gully 2167 and gully 2275; postholes 2504 and 2506.)

Sub-enclosure CG35

- 4.11.13 Ditch CG35 formed a sub-square enclosure located within enclosure CG34. Its dimensions varied between 0.85 m and 1.47 m in width, 0.2 m and 0.7 m in depth and it enclosed an area of around 7 x 7 m (44.5 m²). Ditch 35 contained one or two sandy clay fills in each of the excavated sections, which contained pottery and fragments of lead. The pottery assemblage suggested the enclosure was in use during the later 3rd to 4th centuries.
- 4.11.14 Appended to the northern side of sub-enclosure CG35 was north-south ditch CG45 (7.6 x 0.6 x 0.28 m). Investigation of their junction suggested the features were contemporary. A single sandy clay fill was encountered in each of the excavated sections of CG45, and contained mid-to-late 2nd century or later Romano-British pottery. Two similar features CG46 (7.5 x 0.6 x 0.3 m) and CG47 (5.2 x 0.75 x 0.25) lay to the north, and like CG45 may have had a role in dividing the internal area of the enclosure. These also produced Romano-British pottery.
- 4.11.15 The southern side of sub-enclosure CG35 was cut by posthole 2147 (0.48 x 0.25 m), which contained a sherd of late 2nd-century or later Romano-British pottery in its single sandy clay fill.



Sub-enclosure CG35: internal features

- 4.11.16 Six features were identified within enclosure defined by CG35: a kiln/furnace base (5162), two postholes (5151 and 5167), a pit (2149) and two short sections of gully (2217 and 2219). The kiln or furnace base (5162) was keyhole-shaped in plan. It was 2.2 m in length, 0.18 m deep and attained a maximum width of 1.05 m. It contained a basal fill of charcoal overlaid by a mixed deposit of baked clay and charcoal. The upper sandy clay fill represented the final silting up of the feature. No finds were recovered from 5162 although waste lead was recovered from the section dug across ditch CG35 immediately to the west.
- 4.11.17 Posthole 5151 lay immediately north-east of kiln/furnace 5162; it was sub-oval in plan, 0.25 m in length, 0.16 m in width, 0.04 m in depth and contained a single sterile fill of sandy silt.
- 4.11.18 Posthole 5167 was located at the north-western corner of the enclosure. it was 0.38 m in diameter, 0.23 m deep and contained a single artefactually sterile greyish brown sandy clay fill.
- 4.11.19 Pit 2149 was sub-circular in plan attaining a maximum diameter of 0.88 m. It was 0.4 m deep and contained a single sandy clay fill, which contained a piece of Romano-British ceramic building material.
- 4.11.20 Gullies 2217 and 2219 ran side-by-side on an east-west alignment. Gully 2217 was 4.75 m long, 0.8 m wide, 0.15 m deep and contained a single sandy clay fill, which produced late 2nd to 3rd century Romano-British pottery. Gully 2219 was 4.5 m long, 0.7 m wide, 0.13 m deep and a sherd of Romano-British grey ware was recovered from its single sandy clay fill. Gully 2219 was observed to cut 2217.

Other features

- 4.11.21 A short section of gully (2503) and a possible area of trample or perhaps puddling (2501) were identified close to the centre of the exposed enclosure. Gully 2503 was 3.7 m long, 1 m wide, 0.2 m deep and its single sandy clay fill contained a fragment of gritstone with one flat surface, probably part of a quernstone, although it is not particularly diagnostic. Gully 2503 was cut through an amorphous spread material (2501) that occupied a shallow natural hollow. The deposit covered approximately 10 m² and contained a few sherds of well-rolled Romano-British pottery. Gully 2503 and deposit 2501 are considered to be the result of trample during wet conditions.
- 4.11.22 Ditch CG36 ran from the internal south-east corner of enclosure CG34 for 8.5 m to the north-west, where it merged with sub-enclosure CG34. It was generally 0.85 m wide, 0.45 m deep and contained one or two sandy clay fills in each of the excavated sections. Ditch CG36 could be seen cutting the lower fill of enclosure ditch CG34, although the upper fills of the ditches were indistinguishable from each other suggesting their final silting was contemporaneous. Similarly, at the other end of the ditch CG36, its relationship with sub-enclosure ditch CG35 was not clear but there was tentative evidence to suggest ditch CG36 was the later feature. The finds assemblage from ditch CG36 consisted of a mixed assemblage of Romano-British pottery (the latest element of which dated to the 3rd century or later), ceramic building material, animal bone and flint.
- 4.11.23 A pit or possible hearth base (2267) was located to the north-east of the terminus of ditch CG36. It was sub-circular in plan and reached a maximum diameter of 0.9 m. It was 0.1 m deep and contained a single sandy clay fill with common stones and occasional charcoal flecks (section 2092). A small assemblage of mid-to-late 2nd-century or later Romano-

British pottery was recovered including a grey ware vessel that appeared to have been smashed in place.

- 4.11.24 Gully CG37 linked ditch CG36 and the main enclosure ditch. It was 7.9 m long, generally 0.6 m wide by 0.25 m deep, and contained a single sandy clay fill in each of the excavated sections. It was cut into the upper fill of ditch CG34 to the east and was cut by ditch CG36 to the west. It was also cut by gully 2206 close to its eastern intersection with ditch CG34. The finds assemblage from gully CG37 consisted of animal bone and Romano-British pottery.
- 4.11.25 Spur-gully CG38 (2.1 x 0.45 x 0.03) ran south from gully CG37 and contained a charcoalrich deposit with 3rd-century or later Romano-British pottery and ceramic building material.
- 4.11.26 The base of a small pit or posthole (2189: 0.3 m diam. x 0.03 m) was the only feature identified within the area defined by gullies CG37 and CG38 and the main enclosure ditch (CG34). Its sandy clay fill produced three sherds of Romano-British pottery.
- 4.11.27 Gully CG37 was cut to the north by gully CG42 at their shared intersection with enclosure ditch CG34. Gully CG42 was also cut in to the upper fill of enclosure CG34. Gully CG42 ran for 4 m on a south-east to north-west alignment and was generally 0.9 m wide and 0.18 m deep. It contained either one or two sandy clay fills in each of the excavated sections and produced animal bone and Romano-British pottery of mid-2nd-century or later date.
- 4.11.28 Gully CG42 was cut at a right angle by gully CG43, which was 2 m long, 0.5 m wide, 0.13 m deep and contained a single sandy clay fill in each of the excavated sections. The finds assemblage from gully CG43 consisted of two sherds of 2nd-century or later Romano-British pottery.
- 4.11.29 The bases of three shallow pits or postholes (2232, 2234 and 2236) were spatially associated with gullies 42 and 43. Feature 2232 was 0.3 m in diameter, 0.08 m deep and contained a single sandy clay fill, which produced a sherd of Romano-British pottery. Feature 2234 was 0.27 m in diameter, 0.16 m deep and contained a single sandy clay fill, which produced a sherd of Romano-British pottery. Feature 2236 was 0.46 m in diameter, 0.18 m deep and contained a single, sterile sandy clay fill.

4.12 SMS14–SMS17

- 4.12.1 The deposit sequence in SMS14 through to SMS17 consisted of superficial light–midgrey, slightly sandy clay with gravel overlain directly by a dark brown topsoil.
- 4.12.2 These SMS areas investigated a 'crossroads' of boundaries broadly defining the corner of four fields. The north-east to south-west element of the 'crossroads' consisted of ditches CG48/50 and 51; the perpendicular boundary was marked by CG50, CG51 and CG54. These features were initially exposed in trenches 48, 49, 50 and 69.

SMS16-17

4.12.3 Within SMS16 and 17, and trench 50, it was apparent that the perpendicular (ie, north-west to south-east) boundary comprised two parallel ditches, representing either a double-ditched hedgerow or trackway (Fig. 16). The northern ditch was numbered CG50 (1.96 x 0.37 m max.). The southern ditch, CG54, was a little larger (2.15 x 0.48 m max). Sterile sand clay fills were encountered in each of the four excavated sections. The ditches were set 1.5 m apart.



SMS14

- 4.12.4 SMS14 was focused on the 'crossroads' itself. Four ditches (CG48–51), a gully (CG53) and a hedgerow (CG52) were revealed in SMS14 (Fig. 15). The features were generally between 0.8 and 1.5 m in width and attained a maximum depth of 0.4 m.
- 4.12.5 Ditch CG48 entered the excavation from the north-north-east and had previously been investigated in trench 48 (4803) and trench 47 (4704). Ditch CG49 was appended to the east side of ditch CG48, to form a corner between fields. After continuing for 33 m, ditch 48 turned to the south-east to become the northern boundary of the possible trackway described above. The southern ditch of the possible trackway was formed by ditch CG50, which entered the excavation from the south- west before turning to the south-east.
- 4.12.6 In the southern part of SMS14, the south-west to north-east aligned portion of ditch CG50 ran parallel to ditch CG51 forming a second double-ditched boundary. At the point that ditch CG50 turned to the south-east, ditch CG51 turned to the north-west forming the western arm of the 'crossroads'.
- 4.12.7 Gully CG53 linked ditch CG48 to CG51 thereby closing an access point to the field to the north-west. Gully CG53 was quite an ephemeral feature, attaining a maximum width of 0.4 and depth of 0.15 m. It may, therefore, represent a single event as the field was closed perhaps to keep stock in or alternatively away from planted crops.
- 4.12.8 Hedgerow CG52 was a later feature and it was observed to truncate gully CG53 and ditches CG50 and CG51.

SMS15

- 4.12.9 SMS15 (not illustrated, but see Fig. 2) was located in order to investigate southern extent of the 'crossroads' (which in SMS14 comprised the possible trackway delineated by ditches CG50 and 51) and to test the geophysical data, which indicated ditch CG50 terminated. Only ditch 51 was uncovered in the excavation, in support of the geophysical evidence.
- 4.12.10 No evidence of the continuation of either boundary is apparent in trench 51, dug 27 m to the south of SMS 15, which again corresponds with the .geophysical survey no anomalies were recorded hereabouts.

4.13 SMS18

- 4.13.1 The deposit sequence in SMS18 through to SMS27 consisted of superficial brownish red, firm sandy clay with gravel overlain either directly by a mid-reddish-brown topsoil or by a patchily surviving silty subsoil deposit.
- 4.13.2 The excavation was located in order to investigate a linear feature (CG55) evident as a geophysical anomaly (Fig. 17). Based on the geophysical evidence, the feature was potentially part of a rectilinear enclosure and so the excavation also investigated its interior, but in the event only the ditch (CG55) was identified. Ditch CG55 was also investigated in SMS19 50 m to the east. The ditch was generally 1.5 m in width, 0.5 m in depth and contained a single fill in each of the excavated sections.

4.14 SMS19

4.14.1 SMS19 was located at the intersection of ditches CG55 and CG56, both of which were apparent as geophysical anomalies (Fig. 17). Excavation of the intersection indicated the ditches were contemporaries. Pottery recovered from ditch CG55 consisted of a shell and



grog-gritted sherd dating to the 1st to early 2nd centuries AD. From its intersection with ditch CG55, ditch CG56 took a 225 m curvilinear route to the south-south-west passing through SMS areas 20, 21 and 22. Over its length, ditch CG56 had suffered plough truncation and varied between 1.55 m and 0.48 m in width and 0.52 m and 1.8 m in depth. One or two sterile sandy clay fills were identified in each of the excavated sections.

4.15 SMS20–SMS23

4.15.1 SMS20–23 targeted geophysical anomalies seeming to define a subrectangular plot of land measuring approximately 120 x 110 m, and first exposed in trenches 80 and 81. The western side of the plot of land was defined by the southward continuation of ditch CG56, whose northern extent was exposed in SMS 19 (see above).

SMS20

4.15.2 SMS20 was located over the intersection of ditches CG56 and CG57, which entered the SMS area from the west. Both ditches were apparent as geophysical anomalies and had previously been examined in trench 80 (Fig. 18). A small pit (2711) cut in to the ditch intersection contained fragments of burnt bone. The bone proved to be human, of a subadult/adult aged more than 15 years at death, of indeterminate sex (see below). Further excavation at the intersection revealed ditches 56 and 57 were contemporary features forming the corner of a field. Ditch 57 was generally 1.2 m wide, 0.45 m deep and contained one or two sterile sandy clay fills in each of the excavated sections.

SMS21

4.15.3 SMS21 was located in order to examine the relationship between ditch CG56 and a boundary running east towards it, which had been identified in the geophysical survey (Fig. 19). The eastward boundary, ditch CG58 (7.5+ x 1 x 0.4 m), terminated 2.3 m short of ditch CG56, thereby respecting the feature, and possibly indicating ditch CG56 had a bank to the west. Ditch CG58 contained a single sterile fill in each of the excavated sections.

SMS22–23

- 4.15.4 SMS22 and 23 were placed to investigate the south-east and south-west corners of the 120 x 110 m plot of land respectively (Fig. 19). In SMS22, the corner comprised two separate features. Ditch CG56 ran for 20 m through SMS 22 and exited the limit of the excavation to the south-west. The perpendicular boundary (CG59: 1.5 x 0.5 m) marked the southern edge of the plot of land; ditch CG59 terminated 1.2 m short of ditch CG56 and contained a single sterile fill in both of the excavated sections.
- 4.15.5 Within SMS23 ditch CG59 turned through 90° to form a seamless corner. The angle of the ditch was fully excavated but no evidence of phasing was apparent.
- 4.15.6 Trench 80 investigated the internal area of the 120 x 110 m plot of land, although no features were revealed, suggesting it had a purely agricultural function.
- 4.15.7 The absence of features in trench 96, which was located at the north-east corner of the enclosure, matched the absence of anomalies in the geophysical data hereabouts and suggests in this area the boundary ditch had petered out.

4.16 SMS24–SMS27

4.16.1 SMS24 through to SMS27 were placed to examine the parallel ditches of a trackway apparent as cropmarks and geophysical anomalies and previously revealed in trench 88 (Fig. 20–21). The northern ditch, ditch CG60, was generally 1.5 m wide, 0.5 m deep and



contained one or two sandy clay fills in each of the excavated sections. The southern ditch, ditch CG61, was of similar dimensions and contained similar material. No finds were recovered from the SMS sections but animal bone was retrieved from the sections excavated in trench 88.

4.17 SMS28

Summary

1.1.1 SMS28 was the largest of the excavation areas, covering 6050 m², and was focused on an enclosure with a flanking trackway evident as a geophysical anomaly and previously investigated by trench 92. The excavation revealed the trackway ditch and the enclosure with internal features consisting of two long and three short linear features, 12 discrete features, two possible clay extraction pits, the bases of 19 kilns or ovens, a crop dryer, a hollow-way and a possible dewpond (Fig. 22–24).

General stratigraphy

4.17.1 The deposit sequence in SMS28 consisted of superficial grey-yellow sandy clay with gravel to the north and brownish red clayey sand to the south. Overlying these deposits were either a mid-reddish- brown topsoil or a patchily surviving subsoil deposit.

The enclosure ditch

- 4.17.2 The main enclosure, ditch CG62, was sub-rectangular in plan with an entrance in its south-east side. Ditch CG62 was a substantial feature, approximately 245 metres long and enclosing an area of approximately 70 x 50 m (3480 m²). It varied in width between 1.05 m and 3.4 m and between 0.43 m and 1.4 m in depth, with the wider, deeper sections located along its south-east flank (PI. 5–6). With the entrance also located on the south-east flank, it is likely the earthwork was more substantial along that side in order to make an impression on those approaching the enclosure.
- 4.17.3 The ditch sections contained between one and seven fills and produced a finds assemblage consisting of pottery, animal bone, an iron object (possibly a chisel or punch) and a coin. The pottery was dominated by mid-2nd to 3rd-century material with the majority of it recovered from the south-eastern flank of the enclosure. There was, however, a large assemblage of late 3rd to 4th-century pottery recovered from a distinct and concentrated dump of material in an approximately 20 m-long portion of the north-western flank of the enclosure. This later assemblage could be considered to be a structured deposit.
- 4.17.4 The coin shows Julia Domna, mother of future Emperors Geta and Caracalla and wife of Emperor Septimius Severus who held power from AD 192 to 211.

The crop dryer

4.17.5 The crop dryer (CG65) was constructed of limestone blocks and laid out in a 'T'-shape with a drying chamber, flue and fire pit (Fig. 23; Fig. 24: section 28.3–4; cover; Pl. 7–8). The drying chamber had external measurements of 4.1 m by 1.18 m whilst the flue and fire pit combined measured 4.5 m by a maximum of 1.65 m. Analysis of the environmental samples has identified charred grains of spelt wheat, rye and barley as well as crop weeds, all of which are entirely consistent with the use of the structure to dry grain. Pottery recovered from within the crop dryer dates its backfill to the later 2nd or 3rd centuries AD.

The kiln or oven bases

- 4.17.6 The 19 oven/kiln bases identified associated with the enclosure were located in four distinct clusters. The largest group, consisting of nine features, was located towards the north-east corner of the enclosure with one lying just outside the boundary ditch. These oven/kilns were generally keyhole-shaped in plan and 2.2 m long by 0.6 m wide. They had been truncated by the plough and attained a maximum depth of 0.3 m. Pottery recovered from several of the features indicated that they fell out of use in the 3rd century AD.
- 4.17.7 Five of this group were clustered around the terminus of ditch CG63 and kiln/oven 5017 was observed to cut the ditch (Fig. 22). Not all of the kiln/ovens could have been contemporary, as feature 5021 was recorded cutting 5056.
- 4.17.8 Charcoal is widely present within the samples from these features, with some also containing a few cereal remains (*Triticum* sp.), but none of the charred plant remains are rich enough to merit further analysis (see below).
- 4.17.9 The second group of kiln/ovens consisted of six features located towards the north-west corner of the enclosure (Fig. 23; Pl. 9). The features here were generally similar in plan and of similar dimensions to the previous group although they appeared to have suffered less truncation. Pottery recovered from the group indicates that they fell out of use in the 3rd century AD.
- 4.17.10 Kiln/oven 5287 stood out from the rest of kiln/oven bases as it was the only one that had its flue lined with limestone blocks.
- 4.17.11 A stratigraphic sequence was again noted with oven/kilns 5284 and 5287 cutting 5300 and 5290 respectively.
- 4.17.12 Charcoal is again widely present within the samples from this second group of features, although cereal remains (*Triticum* sp. including *spelta* and *dicoccum*, mostly sprouted) were overall more numerous and better preserved. Other plant remains were noted, including brome grasses and rushes. Further analysis of the sprouted assemblages might reveal whether malting was carried out on the site.
- 4.17.13 The third group was located close to the south-west corner of the enclosure. Here, two kilns/ovens (5143 and 5217) were associated with the remains of a small enclosure (CG70). Kiln/oven 5217 was similar to those described before, whilst 5143 was a little smaller measuring 1.6 m in length, 0.72 m in width and 0.21 m in depth. No dating evidence was recovered from the kiln/ovens but pottery from the small enclosure suggests a late 2nd to 3rd-century AD date for the complex of features.
- 4.17.14 The environmental samples taken from this group contained no plant remains save for charcoal, which will be subject to further analysis (see below).
- 4.17.15 The final group of two kiln/ovens was located either side of the enclosure ditch on its south-eastern flank. These features (2565 and 2591) differed from those previously described in that they were roughly circular in plan with a flat stone base. Excavation of the features and the adjacent enclosure ditch 62 identified deposits that are considered to represent elements of the above-ground superstructure of the kiln/oven and material raked out from the feature's fire pit into the ditch. Their position in the ditch profile indicates that the ditch was, approximately, half-silted-up when the kiln/ovens were in use (Fig. 24: section 28.3; Pl. 10).



4.17.16 Environmental samples taken from the kiln/oven derived deposits were charcoal-rich consisting of very poorly preserved non/woody plant remains. This is consistent with a fire activity with high temperatures, such as pottery making or metal working; however, no pot wasters, slag or hammer scale was identified.

The clay pits

- 4.17.17 Two possible clay extraction pits (5222 and 5068) were recorded to the west of the crop dryer 2611 (Fig. 23). Pit 5222 (2.46 m x 1.8 m x 0.42 m deep) was sub-oval in plan and was associated with a shallow, sub-circular depression (5261: 4 m x 3.8 m x 0.22 m deep) that likely represented a working hollow. An area of burning (5259) was also identified within the hollow. The finds assemblage recovered from the deposits within these features consists of pottery, iron, flint, a quernstone fragment, degraded animal bone and cremated animal bone. The recovered pottery dates the use of the features to the 3rd century AD.
- 4.17.18 Pit 5068 (2.48 m x 2.14 m x 0.82 m deep) was oval in plan and associated with an amorphous spread of material (5071) probably reflecting activity around the pit. A copper alloy hairpin, animal bone and pottery, including a residual sherd of early prehistoric type, were recovered during the excavation of these deposits. The Romano-British wares date the deposits to the 2nd century AD.
- 4.17.19 The copper alloy hair pin is a highly stylised example, with a head in the form of a hand plucking fruit. Parallels are known from Castleford (see below).
- 4.17.20 The environmental samples taken from this group contained brome grass and cereal remains (*Triticum* sp. including *spelta* and *dicoccum*, some sprouted).

The long linear ditches

- 4.17.21 Ditches CG63 and CG64 formed a funnel within the enclosure. Ditch CG63 was curvilinear in plan and measured 40 m in length. It varied between 0.44 m and 1.16 m in width and between 0.15 m and 0.5 m in depth. It had a 'U'-shaped profile and contained one or two clayey sand fills in each of the excavated sections. The finds assemblage consists of mid-2nd to 4th-century pottery, animal bone and a quernstone fragment.
- 4.17.22 Ditch CG64 formed a right angle in plan and was 58 m in length. It varied between 0.7 m and 2 m in width and between 0.1 m and 0.96 m in depth. It had a 'U'-shaped profile and contained one or two clayey sand fills in each of the excavated sections. The finds assemblage consists of 2nd to 3rd-century pottery, animal bone, slag and two iron objects.

The short linear features

- 4.17.23 Four short linear features (CG66, CG67, CG68 and CG70) were identified within the enclosure. Linear feature CG68 (7.35 m x 1.6 m x 0.44 m deep) was located close to clay extraction pit 5222 towards the western limit of the enclosure. It had a shallow, 'U'-shaped profile and contained a single, mid-reddish brown clayey sand fill in each section. The finds assemblage consists of late 3rd to 4th-century AD pottery, cremated bone, flint and two iron objects.
- 4.17.24 The second and third linear features (CG66 and CG67) were located within the northern area defined by long ditches CG63 and CG64 (Fig. 22). Linear CG66 (5.35 m x 0.65 m x 0.5 m deep) had a steep-sided 'U'-shaped profile and contained a single, dark reddish brown clayey sand fill in each of the excavated sections. The recovered finds assemblage consists of cremated animal bone, glass, iron, a quernstone fragment and pottery. The

pottery dates to the 3rd century AD. Linear feature CG66 was observed to cut linear feature CG67.

- 4.17.25 Linear feature CG67 (4.5 m+ x 1.1 m x 0.33 m deep) had a shallow, flat-based profile and contained a single mid-reddish brown clayey sand fill. The finds assemblage consists of 2nd-century AD pottery, animal bone and a metal object. Linear feature CG67 was cut by linear feature CG66.
- 4.17.26 Linear features CG70 and 5214 constituted the remains of three sides of a possible small enclosure just inside the entrance to the enclosure. Feature CG70 was 'L'-shaped in plan and was 7 m in total length. It was generally 0.5 m wide, 0.25 m deep and contained one or two sandy clay fills in each of the excavated sections. Mid-to-late 2nd-century pottery was recovered from the feature.
- 4.17.27 Linear feature 5214 (1.8 m x 0.4 m x 0.05 m deep) had a shallow, 'U'-shaped profile and contained a single sandy clay fill with charcoal and red-fired clay. It was cut by kiln/oven base 5127 and it is likely its fill was derived from the operation of 5127.
- 4.17.28 These linear features were most likely indicative of short term industrial activity or structures within the enclosure.

The discrete features

- 4.17.29 Linear features CG66 and CG67 were associated with two small pits or postholes (5116 and 5253: Fig. 22). Feature 5116 (0.9 m x 0.7 m x 0.38 m deep) was located at the northern end of linear feature CG67. It was sub-circular in plan, had a steep-sided 'U'-shaped section and contained a single, sterile sandy silt fill.
- 4.17.30 Feature 5253 (0.7 m x 0.46 m x 0.25 m deep) was located 1.4 m to the south-west of the south-western terminus of linear feature CG66. It had a shallow 'U'-shaped section and contained a charcoal rich, silty clay fill that produced mid-to-late 2nd century pottery.
- 4.17.31 Three of the remaining discrete features (2800, 5208/5227 and 5210) were located within the trackway defined by the north-eastern flank of enclosure CG62 and ditch CG69. Feature 2800 (0.82 m x 0.78 m x 0.13m deep) was the bottom of a hearth with a baked sandy clay base overlaid by a charcoal rich fill (Fig. 22).
- 4.17.32 Pits 5208/5227 and 5210 were located close to the south-east corner of enclosure CG62 (Fig. 23). Pit 5208/5227 (2 m x 0.66 m x 0.14 m deep) was an elongated oval in plan, had a shallow 'U'-shaped profile and contained a single, sterile sandy silt fill. Pit 5210 (0.72 m x 0.65 m x 0.215 m deep) was located immediately adjacent to pit 5208/ 5227. It was sub-oval in plan, had a flat base and contained two sterile fills, the upper of which was charcoal-rich and spread out beyond the edge of the cut and partially overlaid pit 5208/5227.
- 4.17.33 Feature 5308 (2.7 m x 1.38 m x 0.4 m deep) was located some 30 m to the west, where it was appended to the western side of ditch CG64. It contained a clayey sand fill that produced pottery of mid-3rd-century or later date. No relationship between 5308 and ditch CG64 was apparent in section suggesting the features were contemporaries.
- 4.17.34 Three of the discrete features (5096, 5098 and 5100) were located close to the group of kiln/oven bases in the north-west corner of enclosure CG62. As a group, it is possible they represent the remains of a votive deposit as two of the features (5098 and 5100)

contained the bases of pottery vessels whilst the other (5096) contained a deposit rich in charcoal and cremated bone.

- 4.17.35 Pit 5096 (0.35 m x 0.26 m x 0.14 m deep) was sub-oval in plan with steep sides and a flat base. The pit fill was charcoal-rich and contained bone, mostly burnt, from cattle, sheep/goat and pig.
- 4.17.36 Pit 5098 (0.2 m x 0.2 m x 0.06 m deep) contained the base of a late 1st to 2nd-century grog-gritted vessel, whilst pit 5100 (0.25 m x 0.23 m x 0.1 m deep) contained the base of a Roman grey ware vessel. Although truncated, these features appeared to contain carefully placed deposits rather representing the simple disposal of rubbish.
- 4.17.37 Pit 5192 (0.47 m x 0.45 m x 0.15 m deep) was located close to the north-east corner of enclosure 62. It was sub-circular in plan, had a shallow 'U'-shaped profile and contained a sandy fill with charcoal and cremated bone unidentifiable to species. Samples taken from the fill contain charcoal and some charred cereal remains (*Triticum* sp.).
- 4.17.38 Pit 2607 (1 m+ x 0.85 m x 0.5 m deep) was located 35 m to the east, on the south-eastern side of ditch CG63 with which it shared an indeterminate relationship. It was sub-circular in plan, had a steep-sided 'U'-shaped profile and contained a single sterile clayey sand fill.
- 4.17.39 Pit 5077 (1.46 m x 1.2 m x 0.12 m deep) was located close to the 90° bend in ditch CG65. It was sub-circular in plan, had a shallow 'U'-shaped profile and contained a single silty sand fill. The environmental sample taken from the pit produced Roman grey ware pottery, animal bone and fired clay.
- 4.17.40 Pit 5079 (1.3 m x 0.78 m x 0.15 m deep) was located 1.5 m to the south-west of pit 5077. It was kidney shaped in plan, had a shallow 'U'-shaped profile and contained two clayey sand fills one of which produced mid-to-late 2nd-century grey ware pottery.
- 4.17.41 Pit 5112 (0.86 m x 0.5 m x 0.2 m deep) was located adjacent to section 5255 in ditch CG64. It was oval in plan, had a steep-sided, 'U'-shaped profile and contained a charcoal rich, sandy silt fill.
- 4.17.42 Pit 5114 (0.76 m x 0.7 m x 0.24 m deep) was located just to the south of the crop dryer. It was sub-circular in plan, had a steep-sided, 'U'-shaped profile and contained a charcoal rich, silty sand fill.
- 4.17.43 Pit 5146 (2.05 m x 1.3 m+ x 0.2 m deep) was appended to the eastern side of ditch CG64. It was sub-circular in plan, had a shallow, 'U'-shaped profile and contained a sterile, silty sandy fill.

The hollow-way

4.17.44 The hollow-way (5072) was a poorly defined spread of mid-grey, silty clay material, likely derived through footfall around the entrance of enclosure CG62. It ran adjacent to the possible dew pond 5235 and both features likely reflect regularly wet conditions in the immediate area. The pottery recovered from the surface of the deposit and from the excavated section dates to the late 2nd to 3rd centuries.

The dew pond

4.17.45 The possible dew pond (5235) was located immediately to the west of hollow-way 5072. It was defined by a generally sub-circular deposit of light grey clayey silt (5237) between 9.7 m and 8.3 m across. The deposit was up to 0.3 m deep and overlaid a 0.32 m deep basal



deposit of reddish grey silty clay (5236). The finds assemblage from the upper fill consists of animal bone, a quernstone fragment and 3rd-century and later pottery.

4.18 St Catherine's Well Stream: strip, map and sample

4.18.1 The St Catherine's Well Stream strip, map and sample excavation area lay at the northernmost edge of the site, whose boundary here was defined by the watercourse of the same name. The area occupied approximately 8 ha and extended across four modern fields separated by substantial drainage dykes.

Palaeochannel CG1161

- 4.18.2 Palaeochannel CG1161 crossed the area on a meandering, west to east course, and may represent a precursor to St Catherine's Well stream, which follows a much straighter course just to the north (Fig. 2 and 26). The palaeochannel was up to 8 m wide and 1.2 m deep, and contained a peaty fill. The upper fill 1014 of slot 1013 contained a small worked flint flake. A monolith sample taken through the fills of palaeochannel CG1161 shows fluctuations in water levels overlain by a period of more intense decomposition of vegetational infill from the surrounding area (see below).
- 4.18.3 In the north-west of the area, in between the two arms of the palaeochannel, the natural geology consisted of grey boulder clay. Across much of the remainder of the area the natural substrate presented as a very sandy alluvium. Deposits of River Terrace Gravels were present in the eastern portion of the area, although these proved to be archaeologically blank.

Enclosures CG1080 and CG1127

- 4.18.4 A post-built enclosure (CG1080) consisting of 17 individual features defined a subrectangular oval area (Fig. 25A; Pl. 11). It was located close to the palaeochannel, on a bank of dense grey clay, which differed from the sandy natural substrate encountered across the rest of the area. The feature was aligned north-north-east to south-south-west and measured 7.3 m by 4.2 m externally (6.8 m by 3.8 m internally). Cleaning of the area immediately above the features produced two amber beads of probable Bronze Age date and a small struck flint flake.
- 4.18.5 No features were apparent within the enclosed area. An amorphous spread of charcoal, numbered 1137, had an approximate diameter of 1 m, and lay adjacent to post-built enclosure CG1080 on its north-western side. There was no stratigraphic relationship between the postholes and spread 1137.

Feature no.	Length x Width/m	Depth m	Upper fill	Lower fill	Finds	Description
1040	0 28 x 0 20	0.06	1064	_	No	Stakehole
1040	0.20 x 0.20	0.00	1065	_	No	Stakehole
1047	0.55 x 0.35	0.00	1000		No	Posthole
1042	0.55 × 0.35	0.10	1062	1063	No	Posthole
1043	0.00 × 0.35	0.10	1002	1003	No	Posthole
1044	1 02 x 0 37	0.20	1070	1071	No	Postholo
1045	0.66 x 0.34	0.17	1050	1057	NU Durat hono	Postholo
1040	0.00 X 0.34	0.14	1150	1151		Posthole
1047	1.08 X 0.24	0.11	1152	-	NO No	Posthole
1048	0.65 X 0.28	0.10	1155	1156	NO	Posthole

1

Feature no.	Length x Width/m	Depth	Upper fill	Lower fill	Finds	Description
		m				
1049	0.50 x 0.25	0.10	1075	1076	No	Posthole
1050	0.66 x 0.26	0.14	1074	1073	No	Posthole
1051	0.63 x 0.38	0.18	1068	1069	No	Posthole
1052	1.15 x 0.25	0.15	1067	1066	No	Posthole
1053	0.90 x 0.25	0.16	1060	1061	No	Posthole
1054	0.85 x 0.35	0.15	1056	1057	No	Posthole
1055	0.73 x 0.12	0.15	1058	1059	No	Posthole
1077	0.77 x 0.29	0.13	1079	1078	No	Posthole

4.18.6 A subrectangular enclosure/gully (CG1127) was located 1.4 m to the west of post-built enclosure CG1080. It was defined by a continuous gully; the southern edge displayed truncation. The feature was aligned west-north-west to east-south-east and so followed a perpendicular alignment to that of the post-built enclosure. It measured 6.3 m long and 4.1 m wide externally (5.3 m by 3.3 m internally). The shallow gully was irregular in width and depth (see table below) and filled with a sandy deposit.

Slot no.	Fill	Width m	Depth m
1138	1139	0.43	0.10
1140	1141	0.40	0.18
1142	1143	0.35	0.20
1144	1145	0.20	0.10
1146	1147	0.30	0.15
1148	1149	0.33	0.15
1153	1154	0.25	0.11

 Table 5
 Summary of subrectangular enclosure CG1127

4.18.7 Following the initial sample excavation and recording of the constituent features of postbuilt enclosure CG1080 and subrectangular enclosure CG1127 (Fig. 25), both enclosures were 100% hand-excavated.

Parallels for enclosures 1080 and 1127

- 4.18.8 Due to their mutual spatial tolerance, enclosures CG1080 and CG1127 were seemingly set out as a pair. They occupied a very slight prominence, lying at around 4 m aOD, with the palaeochannel to the east lying at around 3.6 m aOD. The artefactual evidence would indicate a Bronze Age date for enclosures CG1080 and CG1127, although this is rather insecure: two amber beads thought to be of that period and a chronologically undiagnostic flint flake were found in association with the post-built enclosure. The features lack close local parallels, but resemble the so-called mortuary rings recorded at Sutton Common, 14 km to the north-north-west (Van de Noort 2007, 151–156). Twelve such features were identified at Sutton Common, where they were built on a range of alignments and shapes, and generally measured around 5 m across.
- 4.18.9 In addition to these general similarities with the pair of enclosures on the current Site, more specific parallels are that the Sutton Common mortuary rings were also positioned overlooking a palaeochannel and scant finds of burnt bone (both animal and human) and beads (of glass, in this instance) were recorded in association with them. The presence of

the burnt bone led, at Sutton Common, to the tentative interpretation of the features as locations where pyre debris was scattered, although the author acknowledged their 'precise role remains somewhat elusive' (op. cit. 151).

- 4.18.10 Bone from one feature at Sutton Common was radiocarbon dated to the 4th to 2nd centuries BC (OxA–14609 and SUERC–6147; Hamilton, Cook and Bronk Ramsey 2007, 156). Given the similarities between the two sets of 'rings', a similar date and function are cautiously offered for the features at St Catherine's Well Stream, although the discrepancy in chronology is acknowledged. Hopefully this matter will be resolved through scientific dating, see table 18 below).
- 4.18.11 Other parallels for enclosures CG1080 and CG1127 are at East Carr, Mattersey, 14 km to the south-east, where around 70 small ditched enclosures were investigated (Knight and Howard 2004, 128; fig. 6.8). These varied between 2–4 m wide by 2–14 m long, with some containing Romano-British potsherds, and were interpreted as drains serving stacks of 'hay, reeds, peat, wood or withies' (Knight and Howard 2004, 128). Chadwick suggests that some of the larger examples may have been drainage gullies dug around tents or shieling-like temporary buildings of peat, earth or turf (2010, 157). The finds of the beads and burnt bone from the Sutton Common features suggest, however, that these are better comparators for enclosures 1080 and 1127 than the features at East Carr.
- 4.18.12 This potential funerary activity finds a more definite expression relatively nearby, at Rossington Colliery (located about 1.5 km to the south-east), where Bronze Age barrows have been excavated (Roberts and Weston 2016). In addition, a funerary function has been suggested for a segmented enclosure recently uncovered at Manor Farm, Bessacarr (located about 2.5 km to the north-east: M. Stubbings pers. comm.). Certainly, the amber beads are exotic items, and may relate to ceremonial activity here in the past, as may, perhaps, the fragment of burnt animal bone. There was nothing in the environmental samples recovered from the features to suggest settlement activity hereabouts in the past.
- 4.18.13 Whilst their precise function remains unclear, the presence of enclosures CG1080 and CG1127 may indicate funerary activity within this part of the landscape, perhaps focussed on the former watercourse. The current place-name evidence of 'St Catherine's Well Stream' records a familiar association between watery landscape features and religious beliefs; it is possible that the archaeological remains represent an earlier manifestation of such a link.

Ring gullies CG1159, CG1160 and CG1162

- 4.18.14 'C'-shaped ring gully CG1159 (Fig. 25B) was located 60 m to the south of the pair of enclosures. It had a maximum external diameter of 4.4 m and was open to the south-west. The gully was 0.4 m wide, between 0.12 m and 0.18 m deep, and was filled with sandy material (1027, 1029, 1035). No finds were recovered. No other remains were recorded nearby, although ring gully 1159 appears similar to ring gully CG1160, located some 170 m to the north-east (see below).
- 4.18.15 Ring gully CG1160 (Fig. 25C) lay 150 m east of the pair of enclosures. It had a maximum external diameter of 4.1 m and formed a complete circle in plan. The gully (slots 1030, 1032) was very irregular in shape and base with a varying width of approximately 0.6 m. The single sandy fill (1031, 1033) contained no finds.
- 4.18.16 Approximately 100 m to the south-east lay 'U'-shaped gully CG1162 (Fig. 26). The feature measured 4.5 m north-west to south-east and 3.9 m on the perpendicular alignment. It was open on its south-western side, where it appeared to respect the position and course



of enclosure ditch CG1128. Three slots were dug across 'U'-shaped gully CG1162 (1017, 1082, 1084). These revealed it to vary in width between 0.2 m and 0.26 m and in depth between 0.08 m and 0.1 m. The single sandy fill (1018, 1083, 1085) contained no finds.

4.18.17 No internal features were found in any of these three small ring gullies.

Enclosure ditch CG1128

- 4.18.18 Enclosure ditch CG1128 (Fig. 26–27; Pl. 12) was located at the southern limit of excavation, and continued beyond it to the south into the St Catherine' Well Stream Watching Brief Area, where its northern and southern arms were numbered as ditches CG75 and CG32 respectively. Within the SMS area, the exposed portion of the feature was approximately right-angled in plan, and had a total visible length of approximately 130 m. A 1.8 m-wide gap lay on its north-western side. The ditch terminals that defined the gap were reasonably well defined, indicating that the break was an original feature, rather than the product of subsequent truncation. The ditch did, however, become increasingly ephemeral at its south-western extent. Eleven slots were dug across the feature. The enclosure ditch showed signs of recutting, although the gap was apparently maintained when the ditch was recut. The initial cut had a 'V'-shaped and relatively shallow profile; the recut was in some parts deeper and flat bottomed (eg, 1129, 1131 or 1093, 1091).
- 4.18.19 The initial cut of the enclosure ditch was filled with a blueish grey to brown silty sand (eg, 1086 and 1122) very similar to the natural substrate. The fill of the recut consisted of a dark brown silty sand (eg, 1016 and 1092). Fill 1125 of the recut contained one piece of worked flint.
- 4.18.20 The northern terminal defining the 1.8 m-wide gap in the enclosure provided a large assemblage of waterlogged flax capsules associated with broken plant fibres, possibly of flax, which might indicate the use of this part of the ditch for flax retting (see below).
- 4.18.21 Enclosure ditch CG1128 matched a cropmark anomaly.

Cut no.	Length x width x depth	Fill	Recut no.	Depth	Fill	Finds
1015	2.0 x 1.31 x 0.37	1116	1095	0.45	1016	No
1087	2.0 x 1.30. 0.30	1088, 1089	Not identified	-	-	No
1093	2.0 x 0.95 x 0.3	1094	1091	0.22	1092	No
1097	2.0 x 0.80 x 0.46	1098	1163	0.10	1099	No
1101	2.0 x 0.4 x 0.36	1102	1103	0.30	1104	No
1107	2.0 x 0.6 x 0.2	1108	1105	0.2	1106	No
1113	2.0 x 0.75 x 0.27	1114	1115	0.32	1116	No
1121	0.90 x 0.65 x 0.5	1122	1123	0.15	1124	No
1131	1.0 x 0.55 x 0.40	1131	1129	0.25	1130	No
1134	2.0 x 1.7 x 0.3	1133	1126	0.18	1125	Worked flint

Table 6Summary of enclosure ditch CG1128

4.18.1 A number of amorphous features were recorded within the area enclosed by ditch CG1128, and have been interpreted as tree throws and bioturbation. No finds were recovered.



4.19 St Catherine's Well Stream: watching brief

- 4.19.1 The St Catherine's Well Stream watching brief area occupied approximately 3.8 ha. It was situated to the immediate south of the strip, map and sample excavation area of the same name and to the immediate north of SMS12. Prior to the archaeological works, it had been occupied by a topsoil bund; the bund had prevented the excavation of evaluation trenches 17–20. The deposit sequence in the area consisted of a superficial light, pinkish clayey sand overlaid with a mid-reddish-brown topsoil or a patchily surviving mid-to-light, reddish brown subsoil. The mechanical stripping of the overburden revealed six field boundary/enclosure ditches, a partial ring ditch and two small enclosures appended to ditch CG74 (Fig. 26).
- 4.19.2 Within the watching brief area, ditches CG32 and CG75 formed the westward extensions of the southern and northern parts of enclosure CG1128, which had been earlier exposed in the St Catherine's Well Stream strip, map and sample excavation area (see above). These boundaries along with ditches CG30 and CG71 (see below) defined a plot of land occupying some 17300m².
- 4.19.3 Ditch CG32 was also previously investigated in SMS12, and a further 135 m of the feature was revealed within this watching brief area. It varied between 0.75 m and 1.9 m in width, between 0.18 m and 0.47 m in depth and contained one or two sterile clayey sand fills in each of the excavated sections.
- 4.19.4 Ditches CG73 and CG74 formed subdivisions of the 17300m² enclosure defined by ditches CG32/75/1128. They lay c. 47 m apart and parallel to each other on a north-west to south-east alignment. Both had been bisected by a modern dyke that crossed the watching brief area. Ditch CG73 was generally 0.8 m wide, 0.25 m deep; ditch CG74 was generally 1.4 m deep and 0.45 m deep. Both contained one or two sterile, clayey sand fills in each of the excavated sections. The environmental sample taken from ditch 73 contained little apart from a small amount of charcoal; the environmental sample taken from ditch CG74 was much richer and showed signs of waterlogging with good preservation of plant remains, including knotweed (inc. *Persicaria* spp) and rushes. Further analysis of this plant assemblage is recommended (see below).
- 4.19.5 Two small enclosures or pens were appended to ditch CG74, one on its west side and one on its east side. Enclosure CG76 was appended to the western side of ditch CG74 with which it shared an indeterminate relationship suggesting they were contemporaries. It was sub-rectangular in plan, measured 3.8 m by 3.1 m internally and enclosed an area of 11.4 m². The ditch was generally 0.5 m wide, 0.15 m deep and contained a dark grey, sterile silty sand in each of the excavated sections. The environmental samples from enclosure CG76 contained charcoal and the remains of aquatic snails.
- 4.19.6 Small enclosure CG77 was adjacent to the eastern side of ditch CG74, 2.8 m to the south of enclosure CG76. It was 'D'-shaped in plan and respected ditch CG74, suggesting ditch CG74 had its bank to the east. It was generally 1 m wide, 0.4 m deep and enclosed an area of 9.9 m². A dark, reddish brown, sterile silty sand was encountered in each of the excavated sections. As small enclosures appended to field boundaries, features CG76 and CG77 strongly resemble feature CG1162 found within the St Catherine's Well Stream SMS area. It is likely that all three were contemporary and shared a similar function.
- 4.19.7 In the south-western part of the St Catherine's Well Stream watching brief area, ditch CG30 was observed to continue for another 42 m northwards from SMS12, to the point of its intersection with enclosure ditch CG71, which lay within the central western part of the


watching brief area. Ditch CG30 was generally 1.1 m wide, 0.3 m deep and contained a single, sterile clay sand fill in each of the excavated sections.

- 4.19.8 Ditch CG71 formed the southern and eastern sides of an enclosure with the eastern side bisected by the same modern dyke as cut through ditches CG73 and CG74. It varied between 0.6 m and 1.4 m in width, between 0.2 m and 0.52 m in depth and contained one or two clayey sand fills in each of the excavated sections. Animal bone was recovered from two of the sections. It had a 2 m wide entrance at its south-eastern corner and its north-to-south aligned section stopped 3.25 m short of ditch CG75 to the north. Ditch CG75 was generally 1.2 m wide, 0.4 m deep and contained one or two sterile, clayey sand fills in each of the excavated sections.
- 4.19.9 Ring ditch CG72 was located within the enclosure defined by ditches CG71 and CG75. It only partially survived, with its presumed northern half destroyed by the modern dyke. It was generally 0.5 m wide, 0.3 m deep and contained a single clayey sand fill in each of the excavated sections. A single fragment of cattle animal bone was recovered from the feature. Ring ditch CG72 had a projected external diameter of 11.75 m making it comparable with ring ditch CG15 in SMS2. It had a south-east facing entrance, similar to enclosure ditch CG71. No internal features were identified within ring ditch CG72.

4.20 Bridleway watching brief area and trenches 39–46

- 4.20.1 At the south-western edge of the development area, cropmark and geophysical survey evidence revealed the existence of a sub-square enclosure with an internal area of approximately 60 x 55 m (2860 m²). To judge from the remote-sensing evidence, a trio of ditches led eastward from the enclosure, and connected the enclosure to a north-east to south-west aligned ditch.
- 4.20.2 The features and surrounding area were investigated by trenches 39–46, although due to a scheme of preservation *in situ*, further investigation was not necessary at the mitigation stage.

Trenching results

- 4.20.3 The northern edge of the enclosure was exposed in trench 41 (ditch 4104) and was found to be 1.75 wide by 0.9 m deep; no finds were recovered. The interior of the sub-square enclosure was exposed within trenches 41 and 42. Features included a north-east to south-west aligned gully (4112: 12+ x 0.65 x 0.21 m) and a group of over 35 discrete circular features, variously interpreted as pits and postholes. However, no finds were recovered and the archaeological provenance of the group as a whole remains unproven.
- 4.20.4 The trio of ditches projecting eastwards from the sub-square enclosure were intercepted by trenches 40, 43 and 44.
- 4.20.5 The northernmost ditch of the three (4004 in trench 40 and 4305 in trench 43) was 1.8 m wide by 0.88 m deep (max.) and contained a varied assemblage of pottery including grey ware, samian (including a sherd decorated with an erotic scene), Black Burnished ware, a Parisian style beaker and shell-gritted Dales ware, indicating the feature dated to the 3rd century or later.
- 4.20.6 The central ditch (4303: 1.3 x 0.22 m) was artefactually sterile, although a stony hollow (4309: 6.3 x 0.3 m) possibly representing a trackway or area of trample between the two ditches supplied further Romano-British pottery.



- 4.20.7 The southernmost of the three ditches projecting eastwards from the sub-square enclosure was exposed in trench 44 (4408: 2.9 x 1.7 m); the presence of shell-gritted Dales ware jars in ditch 4408 also dated that feature to the 3rd century or later.
- 4.20.8 Trench 45 and 46 targeted the north-east to south-west aligned ditch lying to the east of the sub-square enclosure. It was exposed in both trenches but only excavated where it crossed trench 45 (4503: 2.06 x 0.75 m). Given the visual coherence the ditch has with the other features nearby, the sole pot sherd that ditch 4503 supplied, modern brown-glazed ware, is presumed intrusive.

Bridleway watching brief

- 4.20.9 Several months after the evaluation, a watching brief was carried out during groundworks along the course of a bridleway that followed a north–south course through the western part of the site (Fig. 28). The monitored area, which measured 225 m by 4 m, overlapped with the footprint of trench 43 and exposed more of the features previously investigated.
- 4.20.10 Ditch 5319 was the continuation of trench 43's ditch 4305, the northernmost of the three ditches projecting eastwards from the sub-square enclosure. No further pottery was recovered in the watching brief area, but the intervention augmented the total feature assemblage with a small amount of animal bone.
- 4.20.11 Approximately 15 m south along the monitored area lay ditch 5317 (1.6 x 0.6 m), a continuation of the north-east to south-west aligned ditch previously investigated in trench 45. Where investigated in the bridleway watching brief area, it produced a substantial quality of pottery: 580 sherds weighing almost 14 kg and representing approximately 10% of the entire project pottery assemblage (by weight). The majority of the pottery dates to the mid- to late 2nd century AD, although the latest wares indicate a deposition date in the 3rd century AD overall, and so matches that from the other features nearby.

5 ARTEFACTUAL EVIDENCE

5.1 Introduction

- 5.1.1 The section considers the finds assemblage recovered from evaluation trenches, strip, map and sample (SMS) areas, and watching briefs. The assemblage is predominantly of Late Iron Age/Romano-British date, with a small number of prehistoric and post-Roman items.
- 5.1.2 All finds have been quantified by material type within each context, and the results are summarised by site subdivision in Table 7.

Site subdivision	Animal Bone	СВМ	Fired Clay	Flint	Metal	Stone	Other Finds	
Phase 1 SMS	1/1			3			2 amber	
EVALUTION TRENCHES								
TR03	11/61							
TR03A	8/23							
TR04	1/1							
TR05	527/5515							
TR07	2/122							
TR08		2/47						
TR10	2/297							

Table 7 All finds quantification (excluding pottery) by site subdivision

Site subdivision	Animal Bone	СВМ	Fired Clay	Flint	Metal	Stone	Other Finds
TR11					1 Fe; 1 Cu; 2 Pb		
TR15	13/25						
TR40	82/1270				1 Pb		
TR41	52/595			3			2 slag
TR42	19/227				1 coin; 1 Cu	1/152	-
TR43	24/613	1/90		1			
TR44	26/408				1 coin; 1 Cu		
TR48					2 Fe		
TR51					1 Fe		
TR56	2/28	2/6					
TR69	4/37						
TR88	67/1152						
TR90	9/98						
TR92	58/94	27/870					
STRIP, MAP & SAM	IPLE AREAS				·		
SMS2	522/2104		1/16	1	2 Fe	2/8219	6 slag
SMS7		7/303			1 Fe		
SMS11	1/166						
	2864/26992				4 Fe; 3 Cu;		2 glass;
SMS13	7/52	30/2522	37/225	5	34 Pb	4/6657	4 slag
SMS15	1/55			1			
SMS17	1/2/4						
SMS20	13/39			4			
SMS21	4/16			2			
SMS22	4/10			2			
SMS23				1			
SMS26	2/1						1 glass
SMS27	2/1					2/2500	1 aloogi
SMS28	902/3186	15/937	219/5538	6	14 Fe; 2 Cu;	11/13508	2 slag
WATCHING BRIEF	S				I		
Bridleway w/brief	128/3455	3/541					
St Cath's Well	24/44			1			
Unotratified	6/443			4	8 coins; 6	0/107	
Unstratilied				I	10 coins:	9/10/	
	5382/47340				14 Cu; 41		
TOTAL		87/5310	257/5779	31	Pb; 25 Fe	29/31223	

5.2 Pottery

Introduction

5.2.1 The assemblage comprised seven thousand and sixty-six sherds (135.818 kg, 128.79 RE) and included good groups of late Iron Age pottery, although the majority of the material dated to the 2nd and 3rd century AD. Smaller quantities of late Roman pottery were also present. The assemblage was broadly similar to groups from the Rossington Colliery site (Rowlandson 2013b) but with a greater proportion of material dating to the early to mid-3rd century AD.



5.2.2 A further 38 post-Roman and possible post-Roman sherds were retrieved (0.419kg, 0.07 RE). The majority of these vessels were modern glazed wares. Sherds from two reduced ware vessels with thin walls from trackway 2543 and pit 2189 were either late Saxon/Medieval or atypical local Roman vessels. It is recommended that these vessels should be presented to a post-Roman pottery specialist before any analysis report is completed.

Methodology

5.2.3 An archive has been produced to comply with the requirements of the Study Group for Roman Pottery (Darling 2004a) using the codes and system developed by the City of Lincoln Archaeological Unit, augmented with a local fabric series used to record recent assemblages from Rossington Colliery and Hatfield Lane, Doncaster (Table 8 and Appendix 1; Darling and Precious 2014, Rowlandson 2013b, 2015, 2016a). An attempt has been made to concord the forms used to the form series established by Buckland and Dolby (1980; Table 9). A tabulated summary by context and a sherd archive are included in the project archive. The dates provided represent the pottery recorded here: the main text of the report and other specialist contributions should be consulted to ascertain the overall date attributed to each context.

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
SAMCG	Samian	Central Gaulish	51	0.72%	682	0.50%	73
SAMLG	Samian	La Graufesenque samian ware	2	0.03%	7	0.01%	0
SAMRZ	Samian	Rheinzabern samian ware	7	0.10%	79	0.06%	21
SAMTR	Samian	Trier samian (Trier I and Trier II)	3	0.04%	109	0.08%	3
AMPH?	Amphora	Miscellaneous amphorae	2	0.03%	205	0.15%	0
DR20	Amphora	Dr 20 amphorae	55	0.77%	5122	3.75%	76
GAU	Amphora	Undifferentiated Gaulish amphorae	9	0.13%	362	0.27%	0
MOCA	Mortaria	Cantley mortaria	12	0.17%	520	0.38%	52
MOMD	Mortaria	Midlands mortaria; precise source unknown	1	0.01%	36	0.03%	0
MOMH2	Mortaria	Mancetter-Hartshill mortaria: Meta sediment trits; Leicester fabric MO4	34	0.48%	2221	1.63%	138
MORB	Mortarium	Rossington Bridge (Buckland et al 2001)	7	0.10%	442	0.32%	35
MOVR	Mortaria	Verulamium region mortaria	1	0.01%	290	0.21%	13
GFIN	Fine	Miscellaneous fine grey wares	16	0.23%	143	0.10%	24
PART	Fine	Parisian type wares	1	0.01%	45	0.03%	0
RPART	Fine	Rossington Bridge Parisian wares	1	0.01%	15	0.01%	0
CC	Fine	Other colour-coated wares	1	0.01%	3	0.00%	0
CC1	Fine	Colour coated fabric 1	32	0.45%	177	0.13%	44
SYOXCC	Fine	South Yorkshire oxidised self- slipped ware	4	0.06%	257	0.19%	36
CR	Oxidised	Roman cream wares (various)	20	0.28%	142	0.10%	0
CR?	Oxidised	Roman cream wares	8	0.11%	40	0.03%	0
DBY	Oxidised	Derbyshire ware	75	1.06%	1524	1.12%	94
OX	Oxidised	Misc. oxidized wares	47	0.66%	286	0.21%	65
OX?	Oxidised	Misc. oxidised wares	17	0.24%	119	0.09%	7
OX1	Oxidised	Oxidised fabric 1	25	0.35%	609	0.45%	53
OX8	Oxidised	Oxidised fabric 8	32	0.45%	724	0.53%	97

Table 8	Potterv	fabric	summarv	quantification
		10.0110	o ann an y	quantinoation

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
OXC1	Oxidised	Coarse oxidised: Site fabric 1	48	0.68%	599	0.44%	107
OXFIN	Oxidised	Fine Oxidised fabric	8	0.11%	43	0.03%	11
OXL	Oxidised	Light oxidised fabrics	5	0.07%	71	0.05%	21
OXWS	Oxidised	Oxidized with white slip	3	0.04%	53	0.04%	10
BB1	Reduced	Black burnished 1, unspecified	86	1.21%	1352	0.99%	181
BB2?	Reduced	Black burnished 2	2	0.03%	24	0.02%	0
GBB1	Reduced	Grey Black Burnished ware 1 types	39	0.55%	360	0.26%	54
GREY	Reduced	Miscellaneous grey wares	299	4.21%	3968	2.90%	487
GREY?	Reduced	Miscellaneous grey wares	26	0.37%	255	0.19%	13
GREY1	Reduced	Reduced fabric 1	1108	15.60%	29418	21.54%	2417
GREY2	Reduced	Reduced fabric 2	199	2.80%	2490	1.82%	261
GREY3	Reduced	Reduced fabric 3	26	0.37%	219	0.16%	97
GREY8	Reduced	Reduced fabric 8	3236	45.55%	58971	43.17%	6506
GREYB	Reduced	High fired late Roman grey wares	1	0.01%	25	0.02%	0
GREYC	Reduced	Coarse Grey ware	17	0.24%	262	0.19%	30
GREYC1	Reduced	Coarse Grey ware: site fabric 1	105	1.48%	2016	1.48%	164
GROG	Reduced	Grog-tempered wares	1	0.01%	29	0.02%	0
GROG1	Reduced	Grog-tempered wares: Site fabric 1	138	1.94%	3743	2.74%	203
GROG2	Reduced	Grog-tempered wares: Site fabric 2	64	0.90%	3514	2.57%	146
IAGR	Reduced	Native tradition/transitional grit- tempered wares	25	0.35%	228	0.17%	0
IAGR?	Reduced	Native tradition/transitional grit- tempered wares	1	0.01%	6	0.00%	0
IAGR1	Reduced	Iron Age tradition 'Gritty': Site fabric	69	0.97%	1914	1.40%	143
IAGR2	Reduced	Iron Age tradition 'Gritty': Site fabric 2	88	1.24%	1175	0.86%	96
IAGR3	Reduced	Iron Age tradition 'Gritty': Site fabric 3	55	0.77%	318	0.23%	36
IAGR4	Reduced	Iron Age tradition 'Gritty': Site fabric 4	97	1.37%	846	0.62%	130
IAGR5	Reduced	Iron Age tradition 'Gritty': Site fabric 5	66	0.93%	1602	1.17%	86
IAGR7	Reduced	Iron Age tradition 'Gritty': Site fabric 7	8	0.11%	335	0.25%	0
IASA?	Reduced	IA type sandy wares	3	0.04%	8	0.01%	0
IASA1	Reduced	Iron Age Sandy: Site Fabric 1	26	0.37%	184	0.13%	11
IASA2	Reduced	Iron Age Sandy: Site Fabric 2	21	0.30%	104	0.08%	71
IASA3	Reduced	Iron Age Sandy: Site Fabric 3	2	0.03%	6	0.00%	2
RBBB1	Reduced	Rossington Bridge Black Burnished ware 1	127	1.79%	2148	1.57%	267
SHEL1	Calcareous	Shell gritted- Site fabric 1	23	0.32%	657	0.48%	43
SHEL2	Calcareous	Shell gritted- Site fabric 2	8	0.11%	71	0.05%	18
DWSHT	Calcareous	Dales ware type	452	6.36%	3944	2.89%	459
DWSHT?	Calcareous	Dales ware type	11	0.15%	81	0.06%	0
IASH1	Calcareous	Iron Age Shell Gritted: Site Fabric 1	26	0.37%	451	0.33%	16
IASH2	Calcareous	Iron Age Shell Gritted: Site Fabric 2	4	0.06%	59	0.04%	11
IASH3	Calcareous	Iron Age Shell Gritted; Site Fabric 3	1	0.01%	2	0.00%	0
IASH4	Calcareous	Iron Age Shell Gritted; Site Fabric 4	38	0.53%	270	0.20%	30
SHEL	Calcareous	Miscellaneous undifferentiated	34	0.48%	161	0.12%	2

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Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
		shell-tempered					
IASST1	Rock tempered	Sandstone and grit tempered	1	0.01%	30	0.02%	0
GRCM	Grog	Grog common medium	1	0.01%	4	0.00%	0
MISC	Misc	Misc uncategorised	5	0.07%	9	0.01%	0
PRO	Post Roman	Post-Roman Pottery	35	0.49%	394	0.29%	7
PRO?	Post Roman	Post-Roman Pottery	3	0.04%	25	0.02%	0

Table 9 Pottery forms summary quantification

Form	Form Type	Form Description	S. Yorks Form	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
A	Amphora	Unclassified form	-	66	0.93%	5689	4.16%	76
BK	Beaker	Unclassified form	D	17	0.24%	74	0.05%	6
BKCOR	Beaker	Cornice rim	D	4	0.06%	16	0.01%	26
BKEV	Beaker	Everted rim	D	20	0.28%	170	0.12%	147
BKFN	Beaker	Funnel necked; form unknown	D	5	0.07%	11	0.01%	11
BKFO	Beaker	Folded; indeterminate type	D	6	0.08%	72	0.05%	0
BKFOF	Beaker	Folded; with funnel rim	D	4	0.06%	93	0.07%	32
BKFOS	Beaker	Folded scaled beaker	D	4	0.06%	19	0.01%	0
BKFOSC	Beaker	Folded scaled; curved rim	D	1	0.01%	8	0.01%	11
30	Bowl	Samian form- see Webster 1996	-	5	0.07%	49	0.04%	18
37	Bowl	Samian form- see Webster 1996	-	6	0.08%	150	0.11%	0
38	Bowl	Samian form- see Webster 1996	-	5	0.07%	126	0.09%	8
В	Bowl	Unclassified form	-	30	0.42%	1176	0.86%	90
B?	Bowl	Unclassified form	-	2	0.03%	102	0.07%	7
B31	Bowl	Imitation samian form 31	К	2	0.03%	37	0.03%	13
B318	Bowl	Flared rim as Petch 1962 Fig 7.23		3	0.04%	62	0.05%	21
B321V	Bowl	As Coppack 1973 Fig. 5.11		2	0.03%	41	0.03%	19
B36	Bowl	Copy of Samian form 36	К	2	0.03%	84	0.06%	18
B37	Bowl	Hemispherical possibly imitating samian 37	К	11	0.15%	258	0.19%	57
B38	Bowl	Imitation samian 38	К	4	0.06%	257	0.19%	36
BEX	Bowl	Expanded rim	-	1	0.01%	43	0.03%	9
BFB	Bowl	Bead and flange bowl	C(c)	29	0.41%	1222	0.89%	245
BFBH	Bowl	Bead and flange high bead	C(c)	1	0.01%	22	0.02%	7
BFBV	Bowl	Bead and Flange variant	C(c)	2	0.03%	212	0.16%	11

Form	Form Type	Form Description	S. Yorks Form	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
BFL	Bowl	Flange rimmed (eg Gillam 1970 Types 218-220)	C(a)	191	2.69%	6127	4.49%	1452
BGF	Bowl	Grooved flange	C(a)?	6	0.08%	136	0.10%	38
BGR	Bowl	With grooved rim	B(b)	25	0.35%	885	0.65%	242
BHEM	Bowl	Hemispherical	К	6	0.08%	192	0.14%	70
BNK	Bowl	Necked	-	10	0.14%	281	0.21%	56
BPR	Bowl	Plain rimmed	B(a)	2	0.03%	147	0.11%	31
BREED	Bowl	Reeded rim	-	3	0.04%	116	0.08%	35
BSEG	Bowl	Segmental Gillam 294-5	C(e)	10	0.14%	294	0.22%	68
BTR	Bowl	Triangular rimmed (eg. Gillam 1970 Types 222-3)	C(a)	10	0.14%	318	0.23%	111
BFLL	Bowl- large	Flange rimmed	C(a)	1	0.01%	122	0.09%	16
BL	Bowl- large	Large	H(c)-(d)	72	1.01%	3078	2.25%	102
BLBIF	Bowl- large	Conical bifid rim- Buckland et al 1980 Fig.4.32	H(c)-(d)	2	0.03%	59	0.04%	9
BLD1	Bowl- large	Conical flared lip- Buckland et al 2001 Fig.49.277	H(c)-(d)	127	1.79%	9085	6.65%	759
BLD2	Bowl- large	Conical S-shape ri- Buckland et al 1980 Fig.4.30	H(c)-(d)	31	0.44%	1133	0.83%	256
BLD3	Bowl- large	Conical club rim- Buckland et al 1980 Fig.4.31	H(c)-(d)	23	0.32%	1182	0.87%	89
BLD4	Bowl- large	Conical drooping lip rim- Cregeen 1957 Fig. 4. 145, 151, 152	H(c)-(d)	23	0.32%	1538	1.13%	147
BNAT	Bowl- large	Native tradition bowl eg. D&P No.700	H(c)-(d)?	92	1.30%	4016	2.94%	182
BNNK	Bowl- large	Large bowl with no neck	H(b)	86	1.21%	2798	2.05%	603
BWM1	Bowl- large	Wide-mouthed; D&P No.1225-7	-	1	0.01%	36	0.03%	11
BWM2	Bowl- large	Wide-mouthed; D&P No. 1228	-	2	0.03%	43	0.03%	16
BWM3	Bowl- large	Wide-mouthed; D&P No. 1229-30	-	2	0.03%	266	0.19%	35
BD	Bowl/dish	-	С	101	1.42%	3014	2.21%	12
B411	Bowl-large	Rounded rim (Darling 1999, Fig. 36.370)	H(c)-(d)	14	0.20%	1464	1.07%	137
CLSD	Closed	Form	-	499	7.02%	11763	8.61%	0
33	Cup	Samian form- see Webster 1996	-	3	0.04%	29	0.02%	27
C?	Cup	Form	-	1	0.01%	23	0.02%	13
18/31	Dish	Samian form- see Webster 1996	-	1	0.01%	27	0.02%	5
31	Dish	Samian form- see Webster 1996	-	12	0.17%	214	0.16%	17
31R	Dish	Samian form- see Webster 1996	-	11	0.15%	156	0.11%	11

Т

Form	Form Type	Form Description	S. Yorks Form	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
D	Dish	Unclassified form	С	8	0.11%	125	0.09%	34
D452	Dish	as Gillam 337 GB Cam 16 copy	-	5	0.07%	123	0.09%	38
DFL	Dish	Flange rimmed (eg Gillam 1970 Types 218-220)	C(a)	4	0.06%	89	0.07%	40
DGR	Dish	Grooved rim	B(b)	55	0.77%	1025	0.75%	341
DPR	Dish	Plain rim	B(a)	11	0.15%	200	0.15%	64
DREED	Dish	Reeded rim	-	10	0.14%	74	0.05%	42
FJ	Flagon/jar	Unclassified form	-	26	0.37%	228	0.17%	0
CPN	Jar	Native tradition	-	32	0.45%	593	0.43%	132
CPN67	Jar	Native as D & P 2014 No. 721	-	15	0.21%	203	0.15%	27
J	Jar	Unclassified form	-	204	2.87%	2597	1.90%	294
J?	Jar	Unclassified form	-	16	0.23%	170	0.12%	0
J170	Jar	Bifurcated and lid- seated- Darling 1999 Fig 32.17	E(c)	56	0.79%	1422	1.04%	153
JBIF	Jar	Bifurcated rim	E	1	0.01%	33	0.02%	23
JBR	Jar	Bead rimmed	E	1	0.01%	8	0.01%	7
JCAV	Jar	Cavetto rim	E	37	0.52%	671	0.49%	112
JCH	Jar	Channel rim- Iron Age type	E	24	0.34%	398	0.29%	85
JCYL	Jar	Cylindrical	E	7	0.10%	231	0.17%	83
JDBY1	Jar	Derbyshire lid-seated - as Gillam type 152 with grooved rim	E	9	0.13%	210	0.15%	20
JDBY2	Jar	Derbyshire lid-seated - as Birss 1985 Fig. 42.80 with un-grooved rim	E	31	0.44%	550	0.40%	74
JDW	Jar	Dales ware	E	4	0.06%	107	0.08%	18
JDW1	Jar	Dales ware, as Gillam 157	E	212	2.98%	1749	1.28%	393
JDW2	Jar	Dales ware, as Monaghan JD2 form	E	14	0.20%	243	0.18%	26
JEV	Jar	Everted rim	E	227	3.20%	2518	1.84%	833
JEVC	Jar	Everted rim- curved as Gillam type 135	E(a)	329	4.63%	4418	3.23%	1682
JL	Jar	Large	F	147	2.07%	9001	6.59%	245
JLH	Jar	Lug-handled	F	47	0.66%	1306	0.96%	227
JLS	Jar	Lid-seated	E	44	0.62%	854	0.63%	398
JLSBX	Jar	Blaxton lid-seated- Buckland et al 1980 Fig.4.23	E(b)	90	1.27%	1934	1.42%	553
JNAT	Jar	Native tradition	E	57	0.80%	937	0.69%	90
JNK	Jar	Necked	-	73	1.03%	865	0.63%	311
JNN	Jar	Narrow-necked	-	12	0.17%	323	0.24%	197
JRUST	Jar	Rusticated	E	27	0.38%	343	0.25%	0
JS	Jar	Storage	-	11	0.15%	340	0.25%	6
JTR	Jar	Triangular rim	-	15	0.21%	606	0.44%	59
JUP	Jar	Upright rim	-	58	0.82%	214	0.16%	64

Form	Form Type	Form Description	S. Yorks Form	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
JBK	Jar/Beaker	Small jar or beaker	D/E	10	0.14%	64	0.05%	51
JBKEV	Jar/Beaker	Everted rim	D/E	14	0.20%	84	0.06%	95
JBKNK	Jar/Beaker	Necked	D/E	6	0.08%	31	0.02%	63
JB	Jar/Bowl	Unclassified form	-	68	0.96%	1444	1.06%	172
JBCAR	Jar/Bowl	Carinated	-	1	0.01%	70	0.05%	0
JBKBR	Jar/Bowl	Bead-rim	-	3	0.04%	30	0.02%	23
JBL	Jar/Bowl	Large	-	139	1.96%	7492	5.48%	38
JBNAT	Jar/Bowl	Native tradition	-	45	0.63%	1003	0.73%	79
JBNK	Jar/Bowl	Necked	-	21	0.30%	278	0.20%	27
CHP	Misc	Cheese press	H(a)	2	0.03%	196	0.14%	29
COL	Misc	Colander	H(a)	6	0.08%	108	0.08%	0
COL?	Misc	Colander	H(a)	7	0.10%	111	0.08%	26
CRUC	Misc	Crucible	-	2	0.03%	6	0.00%	2
45	Mortaria	Samian form see Webster 1996	-	1	0.01%	24	0.02%	1
М	Mortaria	Unclassified Form	A	20	0.28%	864	0.63%	10
MBF	Mortaria	Bead-and-flange rimmed	A	3	0.04%	102	0.07%	14
MFL	Mortaria	Flange-rimmed as Gillam 246	А	14	0.20%	1179	0.86%	96
MHH	Mortaria	Hammerheads as Gillam 279-84	А	11	0.15%	743	0.54%	70
МНК	Mortaria	Hook-rimmed as Gillam 237-45	A	4	0.06%	489	0.36%	31
MRR	Mortaria	Reeded rim	Α	2	0.03%	93	0.07%	10
MTR	Mortaria	Triangular rim	Α	1	0.01%	39	0.03%	7
OPEN	Open	Form	-	1	0.01%	44	0.03%	0
PWS	Plate	Late wall-sided type Gillam 297 etc.	К	2	0.03%	87	0.06%	11
PD	Plate/Dish	Form	-	1	0.01%	34	0.02%	0
LUDTG	Platter	Samian form see Webster 1996	-	2	0.03%	8	0.01%	7
-	Unknown	Form uncertain		3200	45.05%	28737	21.04%	16

Earlier prehistoric pottery

- 5.2.4 A single small handmade sherd with common moderate grog inclusions was retrieved from pit 5068. The sherd had an oxidised external surface and may have been of earlier prehistoric date. This sherd was found stratified with a Roman grey ware rusticated jar of 2nd-century AD date.
- 5.2.5 A further 13 featureless handmade quartz sand-gritted sherds (including IASA? and IASA1), a shell-gritted sherd (IASH1) from posthole 3010 and a further sherd from gully 3070 may also have been of prehistoric/Iron Age date.

Iron Age and earlier Roman native tradition wares

5.2.6 Five hundred and thirty-one sherds (7.538kg, 6.32 RE) of transitional Iron Age to 2ndcentury AD wares were recorded. The majority of the earlier wares were retrieved from area SMS2, notably from ring ditch groups 14 and 15. The pottery from this area contained groups that could be dated to the 1st to early 2nd century AD and was almost devoid of Roman wares, suggesting that some of the activity may have occurred during the pre- or peri-conquest period. The more developed transitional wares (IAGR types) were absent from this assemblage. The range of forms present included a shell-gritted storage jar from posthole 4263 (Rigby and Stead 1976, Fig. 74.11), a jar with a cordoned rim from ring ditch CG15 (Rowlandson 2013b, no. 1), a native tradition jar with a wedge shaped rim (Darling and Precious 2014, no. 690) and a necked jar from ring ditch CG14. A sandstone-gritted sherd was retrieved from ditch CG34/35. Sand-gritted wares included a beaker with an everted rim from ring ditch CG14, a jar with an upright rim (Rowlandson 2013b, no. 3) also from group 14 and a necked jar from Ring ditch CG15 (as Elsdon 1996, type group 3). A sandstone handmade sherd was retrieved from ditch CG34/36. The range of material from this site was small but similar to other assemblages from sites in the vicinity of Doncaster (Cumberpatch 2000, 2007, 2008; Rowlandson 2013b). This group appears most similar to the Phase 2 assemblage from the Rossington Colliery site, suggesting activity in the 1st century AD (Rowlandson 2013b). The shell-gritted wares from this site appear likely to have been manufactured in Lincolnshire or Nottinghamshire utilising Jurassic fossiliferous strata for the raw materials.

5.2.7 The IAGR type transitional wares were recorded from areas SMS13, SMS28 and TR15. Evidence from Lincoln suggests that IAGR type fabrics appeared in Lincoln in the mid to late 1st century AD but were less common by the second half of the 2nd century AD (Darling and Precious 2014, 104). The greatest quantities of these wares came from ditch CG62, with smaller quantities from features 34, 34/36, 40, 41 and 46. The forms present included a range of native tradition jars and large bowls with wedge shaped rims (including Darling and Precious 2014, no. 722), jars with everted rims and a jar with triangular rim and a cordoned rim neck (as Rowlandson 2013b, no. 1; Buckland and Magilton 1986, fig. 34.1). The vessels in the IAGR category had more mixed fabrics including grog/clay pellets, shell and quartz sand. IAGR type fabrics were common amongst the Phase 3 (1st to mid-2nd century AD) activity on the Rossington Colliery site (Rowlandson 2013b) and the material from this group appeared to be of similar date.

Samian

- 5.2.8 A total of 64 sherds of samian ware recovered from seven areas of excavations were examined for this report. They add up to a total weight of 880g, 48 vessels and a total rim EVEs (Estimated Vessels Equivalents) figure of 1 (Table 10).
- 5.2.9 The whole assemblage was first catalogued and quantified, using fabrics and forms codes defined at Museum of London Archaeology (Symonds 1999). The fabric of each sherd was examined, after taking a small fresh break, under a x 20 binocular microscope. Each archive entry consists of a context number, fabric, form and decoration identification, condition, sherd count, rim EVES, rim diameter, weight, notes and a date range. The presence of wear, repair and graffiti was also systematically recorded.
- 5.2.10 The decorated vessels were the subject of further analysis. Some eleven sherds of decorated samian were identified, where possible, to individual potters or groups of potters. Catalogue of the decorated ware (Cat nos.1-5) is provided in Appendix 2. Rubbings of the decorated fragments were undertaken during analysis. They were mounted, scanned and submitted as illustrations.
- 5.2.11 The samian assemblage is, on the whole, in relatively good condition and the average sherd weight is quite high at *c*. 19 g. Several sherds have however excoriated surfaces.

Table 10	Samian	fabrics	and	forms	by	area
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La Graufesenque	Lezoux	Rheinzabern	Trier	Total



	Sh	Wt	MNV	sh	Wt	RE	MNV	sh	Wt	RE	MNV	sh	Wt	RE	MNV	sh	wt	RE	MNV
SMS13	1	2	1	6	138	0.01	6	1	31		1					8	171	0.01	8
SMS28	1	5	1	35	383	0.54	25	6	48	0.21	5	1	3		1	43	439	0.75	32
TR40				6	53	0.18	2									6	53	0.18	2
TR44				1	2		1									1	2		1
TR90				1	38		1									1	38		1
TR92/ SMS28												2	106	0.03	1	2	106	0.03	1
WB				3	71		3									3	71		3
Total	2	7	2	52	685	0.73	38	7	79	0.21	6	3	109	0.03	2	64	880	0.97	48

SMS13

5.2.12 The samian group (Table 11) is small with eight sherds but provides evidence for occupation in the 1st and 2nd century AD. A South Gaulish decorated bowl form Dr 37 was recovered from context (2141) but without enough decoration to be precisely dated. The rest of the group is later, mostly from Lezoux in Central Gaul and Antonine including a decorated bowl (Cat. no.1). The latest Central Gaulish form is a mortarium recovered in ditch 2226; the form is dated AD 170–210.

SMS13	La Graufesenque	Lezoux	Rheinzabern	Total
dish		1		1
DR31		1	1	2
DR37	1	2		3
DR45		1		1
unid		1		1
Total	1	6	1	8

Table 11	Samian	fabrics and	forms	from	SMS13	(MNV)
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5.2.13 A small fragment from East Gaul retrieved in ditch 5189 completes the group, it is from a dish form Dr 31 and the fabric suggests origin in Rheinzabern and a date range of AD 150–250 is likely.

SMS28

5.2.14 With 43 sherds for a total weight of 439 g and a rim EVE figure of 0.75, this is the largest samian group recovered from the site (Table 10). The sherds add up to 32 vessels (Table 12). The assemblage is still relatively small but contains a varied range of fabrics and forms dating from the 1st to the 3rd century AD. The earliest material consists of a Flavian South Gaulish Dr 37 recovered from the upper fill of ditch CG62 (5304, see Cat. no.4).

SMS28	La Graufesenque	Lezoux	Rheinzabern	Trier	Total
bowl		1			1
dish		1			1
DR18/31		1			1
DR31		8			8
DR31R		2	1		3
DR33		1	2		3
DR37	1				1
DR38		3	1		4
LUDTg		1			1
unid		7	1	1	9
Total	1	25	5	1	32

Table 12 Samian fabrics and forms from SMS28 (MNV)

5.2.15 The rest of the group is later, from Lezoux in Central Gaul and Rheinzabern and Trier in East Gaul and consists of plain forms more characteristic of the second half of the 2nd century AD (Dr 31, 31R, 38, LUDTg).

TR40

5.2.16 The six sherds of samian ware from TR40 add up to two decorated bowls both recovered from ditch 4004. One is a Dr 30 with links to Lezoux potter Criciro v (Cat. no.2), the other is from a Dr 37 also from Lezoux but too partial to attribute to a specific potter (Cat. no.3).

TR44

5.2.17 A footring fragment from a Lezoux dish was recovered from ditch 4409; it cannot be more precisely dated than AD 120–200.

TR90

5.2.18 A single sherd of samian ware was recovered from TR90, a bodysherd from bowl form Dr.31R in a Lezoux fabric. Found in ditch 9004, the vessel is more typical of the later Antonine period (AD160–200).

TR92/SMS28

5.2.19 Two joining sherds making up an archaeologically complete profile from a Trier dish form Dr 31 were recovered from that area (context 9212). The dish is most likely late 2nd to mid-3rd-century AD in date and had been repaired and well-used when deposited.

Watching brief

5.2.20 The samian group recovered from the watching brief is small with three Central Gaulish vessels, two are small un-diagnostic fragments but one is a large fragment from a decorated bowl form Dr 37 by potter Libertus ii (Cat. no.5) dated AD 105–130.

Concluding remarks

5.2.21 The group is too small to attempt any kind of statistical or functional analysis but it contains a range of samian vessels dating from the 1st to the 3rd century AD. The quantities of South Gaulish samian that would attest to occupation on site in the 1st

century AD are small but not unusually so for the region. South Gaulish samian is not unknown on rural sites in South Yorkshire but it remains rare and often chiefly consists of plain ware (Armthorpe: Ward 2008, though only area B samian is included on the CD and not junction 4 where apparently a South Gaulish Dr 37 is recorded: Leary et al 2008, 28; Holme Hall Quarry, Maltby: Monteil 2016a; Doncaster: Monteil 2016b). The rest of this small assemblage is later with Central and East Gaulish types pointing to continuous occupation throughout the 2nd and early 3rd centuries AD.

5.2.22 The forms represented and the emphasis on plain ware in the group generally fit with typical samian functional profiles recovered from rural sites in Britain (Willis 2005, section 8.2.6) and more generally with other assemblages recovered on rural sites in South and West Yorkshire (Darling 2004b; Evans 2004, 18 and 32–3; Evans 2001, 156, 158, 160, 170; Leary 2010a and b; Monteil 2013; 2016a, Ward 2008). The presence of six decorated bowls, two from La Graufesenque in South Gaul and four from Lezoux is more unexpected from a small rural assemblage; this may be a distorted image brought about by the small size of the group or perhaps a reflection of good access to supply and the proximity of Doncaster. Further comparative work in analysis will hopefully shed more light.

Amphora

- Sixty-six amphora sherds (5.689 kg, 0.76 RE) were retrieved. Amphora sherds were well 5.2.23 represented for a rural site. Dressel 20 type olive oil amphorae from southern Spain were the most common with a total of 55 sherds from a maximum of 15 vessels. However despite the high number of sherds present and their fresh condition, rim sherds from only two vessels were noted. A gritty rim and neck fragment was retrieved from ditch CG36 from a type likely to have been produced prior to AD 150 (Martin-Kilcher 1987, Beilage 1: 54 or 70). Sherds with similar gritty fabrics were retrieved from ditches CG34, CG34/36, CG35, CG46, CG62, kiln CG65, kiln/oven 5135 and pit 5253. Many of the gritty Dressel 20 amphorae sherds from this site may have been from the same vessel. A rim and handle fragment from ditch CG62 was probably manufactured in the second half of the 2nd century or the early 3rd century AD (Martin-Kilcher 1987, Beilage 2:92 & 102). A further small scrap of Dressel 20 amphora was retrieved from pit 5253. A small quantity of sherds from Gallic wine amphora, probably Gauloise 4 type vessels, was recorded including a sherd from working hollow 5256, two sherds from ditch CG34 and sherds from another vessel from ditch CG62. Sherds from a vessel from working hollow 5256 may also have been from an imported amphora although the production source was uncertain. A specialist may be able to identify the vessel type.
- 5.2.24 Proximity to the market centre at Doncaster may explain the presence of the fragments of amphorae amongst this assemblage, suggesting the inhabitants may have had access to imported olive oil or wine. The fresh condition of many of the sherds suggested that the vessels may have arrived on site as whole vessels. The re-use of amphorae in the ancient world has been recognised by and discussed by many authors and it may also be possible that the vessels did not arrive on site with their original contents (Peňa 2007). The excavations at the Rossington Colliery site also produced a large proportion of the neck and shoulder from a single vessel suggesting another vessel that had also arrived at Rossington as a whole vessel (Rowlandson 2013b).

Mortaria

5.2.25 Fifty-five mortaria sherds (3.509 kg, 2.38 RE) were retrieved. The majority of the mortaria were local South Yorkshire products or Mancetter/Hartshill type products.

- 5.2.26 The earliest mortarium present was a sherd from a Verulamium region hook rimmed type from gully CG67 with internal use ware (as Castle 1972, no. M7; Hartley in Hinton (ed) 1988, fig. 120.1012). This vessel may have been of Flavian date. Examples of similar vessels from the Doncaster area include a vessel from the Finningley and Rossington Regeneration Route Scheme dated to AD 110–150 (Rowlandson 2016a) and a number of mortaria published from the Roman civil settlement (Hartley in Buckland and Magilton 1986). A sherd from a Mancetter/Hartshill mortarium with 'mixed trituration grits' likely to date to the first half of the 2nd century was retrieved from ditch 36.
- 5.2.27 Examples of the local Rossington Bridge type white-slipped mortaria with 'mixed trituration grits' dating from the mid- to late 2nd century AD were found in ditches CG35, CG36 and CG62 and feature 5317 from the watching brief. The forms present were typical hook rimmed types. Kilns producing similar types have been found at Rossington Bridge (Hartley in Buckland et al. 2001) and Cantley (Annable 1960); these vessels are commonly found at Doncaster and in the surrounding area and from forts in the north of England and on the Antonine Wall. A greater quantity of Rossington Bridge type mortaria sherds were retrieved from this investigation than from the Rossington Colliery site (Rowlandson 2013b).
- 5.2.28 Mancetter/Hartshill type mortaria with fired clay trituration grits were the most common from the site. This fabric has traditionally been dated to AD 150 or later. The forms included flanged types (MFL) from ditches 62 and 68 dating to the late 2nd to earlier 3rd century AD, along with hammer head types (MHH) from the 3rd century AD or later from ditch CG63, pit 5222 and layer 5226. This fabric was common at Lincoln and Doncaster during the 3rd century AD and from other rural sites from this area where often it was the most common type (Rowlandson 2013b).
- 5.2.29 Cantley type slag-gritted oxidised mortaria with white slip were also present, the forms included a bead and flange rimmed form (MBF) from ditch CG64, hammer head types (MHH) from ditch CG62 and kiln/oven 5218, a reeded rim example (MRR, as Cregeen 1957, fig. 1.41) and a vessel with a triangular reeded rim (MTR, eg. Rowlandson 2013b, fig. 21, 74), with quartz trituration, from ditch CG34. All the vessels from this site could be paralleled amongst the material published from the Cantley kilns (Cregeen 1957; Annable 1960; Buckland and Magilton 2005) and date to the 3rd to 4th century AD. Mortaria of this type are typically seen amongst later Roman groups from Doncaster (Hartley in Buckland and Magilton 1986) and perhaps other forts further to the north (see discussion by Evans in Wilson 2002, 243–5). Examples of this fabric are found on rural sites in the vicinity of Doncaster with evidence for late Roman activity (eg. Rowlandson 2013b).

Other fine wares

5.2.30 Sixty-three sherds of other fine wares (0.683 kg, 1.15 RE) were retrieved. Colour-coated wares are not common amongst rural assemblages in South Yorkshire with some large assemblages of 3rd-century date having no colour-coated wares present (Rowlandson 2015). The majority of the forms present were beakers with examples of cornice rimmed types from feature 5256 and ditch CG68 that probably dated to the 2nd century AD, a funnel necked type dating to the 3rd or perhaps 4th century AD from ditch CG62 and folded or folded and scaled types, probably of a similar date, including examples from ditch CG62 and a fragment from a copy of a samian form 36 bowl from ditch CG61. The range of forms present would suggest that a limited quantity of colour-coated ware reached the site in the 2nd and 3rd century AD with ceramic beakers the most common type. Presumably, more durable local bowls and dishes sufficed for use at the table and colour-coated beakers were prized as they were not commonly produced by the local

pottery industries. This bias towards beakers was also seen in the assemblage from the Rossington Colliery site (Rowlandson 2013b).

- 5.2.31 After colour-coated sherds the fine grey wares were the commonest amongst the group with the majority of sherds in a fine grey fabric broadly similar to examples of Rossington Bridge (GFIN, broadly as Tomber and Dore 1998, ROS FR). Forms present included a bag-shaped beaker with an everted rim from cropmark enclosure ditch 4004, a necked jar or beaker from ditch CG41 and a flagon or jar from ditch CG62. A further example of a black fine grey ware beaker base trimmed to a disc was retrieved from ditch CG35. The fabric for this vessel appeared similar to Market Rasen Parisian wares or was perhaps a darker fired local fine ware. A single rouletted sherd from ditch CG63 was attributed to the Rossington Bridge Parisian ware fabric (RPART). The presence of fine wares of this type was unsurprising given the proximity to a known production source. However it appears that this fabric was more common at the Doncaster vicus than on rural sites in the area (Rowlandson 2013b).
- 5.2.32 The grey wares present were mostly classified as the GREY1 and GREY8 fabrics that were probably produced in the area around Doncaster, western Lincolnshire or northern Nottinghamshire (see fabric summary, Appendix 1). The sherds in these two fabrics made up over half of the assemblage by both count and weight. A complete range of the typical South Yorkshire forms was present, including a full range of large bowls, dishes and small bowls including straight sided bead and flanged types. Jars included the out-curved rim type, everted rim types, rusticated jars, necked jars, Blaxton type lid-seated forms, split rim lid-seated type jars, cavetto rim types and a small number of beakers. More detailed analysis of this material could be conducted during any further analysis but the range of forms suggests that the site received local pottery throughout the main floruit of the South Yorkshire industries from the middle of the 2nd century to the earlier 4th century AD. The range of pottery present is perhaps more heavily weighted towards the 3rd century AD than material from the Rossington Colliery site (Rowlandson 2013b) with a range of 'shouldered bowls' and Blaxton type lid-seated jars.
- 5.2.33 Examples of the GREY2 fabric were also recorded from ditches CG46, CG62, CG63, CG64 and gullies CG47 and CG67. The vessel types included a typical range of early Roman forms including native tradition jars with wedge shaped rims, jars with everted rims, web rusticated jars, a lug-handled jar and lipped bowls, some with chamfered bases. This early Roman range was noted at the Rossington Colliery site and the range suggests that these vessels were produced prior to the development of the main local grey ware industry in the later 1st to early 2nd century AD.
- 5.2.34 A small quantity of grey ware present was not attributed to one of the main fabric groups (GREY). Vessels in this group included a dish with an inturned beaded rim from ditch CG64 (D452), a carinated lipped bowl probably of early Roman date from ditch CG34 (B318) and, from ditch CG63, a developed wide-mouthed bowl with burnished surfaces similar to examples from Lincolnshire (BWM3).
- 5.2.35 A small quantity of fine oxidised wares was recorded (OXFIN), all probably table ware forms including a jar or beaker from feature 5247, a bowl from ditch CG62, a copy of a samian form 36 bowl and a beaker from ditch CG46. All of the sherds in this fabric were retrieved from groups dated to the 2nd to early 3rd century AD and may have been local products. Sherds from two hemispherical flanged bowls in a colour-coated/self-slipped late Roman local oxidised fabric were noted from CG64 and a vessel found in ditch groups CG34 and CG35 (SYOXCC). This fabric is similar to the description of a fabric produced at Cantley (Buckland and Magilton 2005) small quantities have been noted from



rural sites in the area including an example of a decorated bowl from the Rossington Colliery site (Rowlandson 2013b), a jar or beaker from Hatfield Lane, Doncaster (Rowlandson 2015) and Gunhills, Armthorpe (Leary et al 2008). These wares can probably be dated to the 4th century AD.

Oxidised wares

- 5.2.36 Two hundred and seventy-eight sherds (4.099 kg, 4.50 RE) of oxidised ware were retrieved. Oxidised wares were relatively rare as would be expected amongst Roman assemblages from South Yorkshire. A limited number of oxidised flagons appear in later 1st to 2nd century AD assemblages and oxidised wares appear more commonly in the late Roman period when they were manufactured at sites such as Cantley (eg, Buckland and Magilton 2005).
- 5.2.37 Light fired flagon fabric CR was found in small quantities, notably from ditches CG34 and CG62, probably all from flagons or jars from a maximum of four vessels. Such light fired 'white wares' were manufactured at Lincoln and in the Mancetter/Hartshill area and small quantities have typically been found on rural sites in the area dating to the 2nd century AD (Rowlandson 2013b, 2015, 2016a). Other more unusual fabrics present were sherds of a light pink oxidised fabric including a necked jar from ditch CG34 and sherds from a flagon or a jar from ditch CG34. This fabric was similar to early Roman Lincoln products in appearance but may have been of 2nd-century AD date.
- 5.2.38 The majority of the oxidised sherds were in the OX1 and OX8 fabric variants. The forms present included a range of samian copies and flanged bowls typical of the late Roman output of kilns such as Cantley (Buckland and Magilton 2005, fig. 15.63–83). The forms included copies of samian form 31 bowls (ditch CG34), form 36 bowls (layer 5226) and form 37 bowls (ditches CG34, CG62 and CG64). A late Roman straight-sided bowl was retrieved from ditch CG62 and a variant flanged bowl from ditch CG34 (as Buckland and Magilton 2005, fig 15.81). A segmental flanged bowl from ditch CG62 and a necked jar or bowl from ditch CG66 may perhaps date to the later 2nd to 3rd century AD. Unclassified oxidised wares (OX) included a fragment from a flagon or handled jar were retrieved from ditch CG51.
- 5.2.39 Derbyshire wares were present, with evidence for a maximum of 17 vessels notably from ditches CG34, CG35, CG36 and CG62. Two rim fragments from lid-seated jars were noted: one from ditch CG62 (Gillam 1970, type 152) and another from ditch CG36 (Birss 1985, table 5. no. 80). Similar small quantities of Derbyshire ware have been noted from other contemporary assemblages including from the Phase 4, 2nd to 3rd-century AD groups from Rossington Colliery (Rowlandson 2013b) and Hatfield Lane, Doncaster (Rowlandson 2015). These had a greater proportion of the activity on the site that could be dated to the 3rd century AD. Examples of the coarse oxidised OXC1 fabric were present including necked jars from ditch CG62, a lid-seated jar from ditch CG64 and a jar with an out-curved rim from gully CG68. A similar fabric is described from Armthorpe and other sites in South Yorkshire by Leary et al (2008, OAC1). This fabric is either 'Pre-Derbyshire ware' (Brassington 1971) or a local attempt to produce a similar fabric (Buckland et al. 2001, 69). Sherds in this or a similar fabric were also present in small quantities from Rossington Colliery and Hatfield Lane.
- 5.2.40 A small number of white slipped oxidised wares were recorded including a segmental flanged bowl from ditch CG34 and a base from a possible flagon or jar (context 2135). The source of these vessels is not certain: although the local industry produced white

slipped mortaria, neither of these vessels were of that form and may represent atypical local products.

Reduced wares

- 5.2.41 Five thousand, three hundred and twenty-five sherds (106.354 kg, 105.16 RE) of reduced wares were retrieved.
- Dorset Black Burnished ware 1 (BB1) was present in small guantities including a dish with 5.2.42 a grooved rim, a lipped bowl and jars with outcurved rims that may date to the 2nd to 3rd century AD. The commonest forms present were jars with cavetto rims and dishes with plain rims that dated to the later 3rd to 4th century AD. The proximity to the Rossington Bridge Black Burnished ware production site, which was active in the 2nd century AD, probably accounted for the lack of Dorset material dating to that period. It has been noted elsewhere in South Yorkshire and at Castleford that Dorset Black Burnished ware 1 appears most commonly in the late 3rd century AD (Leary et al 2008; Rush et al 2000). Two sherds possibly of Black Burnished ware 2 from south eastern England were also recorded from ditch 2286 and working hollow 5256. Examples of Black Burnished ware 2 are rare from rural sites in the area although small quantities have been recorded from Castleford, Lincoln and York (Rush et al 2000; Darling and Precious 2014; Monaghan 1997). Rossington Bridge Black Burnished ware 1 of the 2nd century AD was present in the standard RBB1 fabric and the grey coloured fabric variant (GBB1) in greater quantities than Dorset products. One hundred and fifteen sherds were present and the forms included the typical lipped bowls and jars with out-curved rims and burnished lattice decoration. The bias towards the local products was also evident at the Rossington Bridge Colliery and Hatfield Lane sites (Rowlandson 2013b, 2015).
- Local grey wares GREY1 and GREY8 were the most common from the site making up 5.2.43 over half of the assemblage by both count and weight. GREY1 was the typical Doncaster fabric typified by the products from the Rossington Bridge kiln. The GREY8 fabric group was more varied and may have included products from the South Yorkshire kilns, northern Nottinghamshire and Lincolnshire 'Trent-side' products (see fabric summary, Appendix 1, and Rowlandson 2013b). A complete range of local grey ware wide-mouthed bowls was present in these fabrics (BNNK, B411, BLD1-4, BNAT, BLBIF). The standard large conical bowl was most common (BLD1) but the 'shouldered bowl' (BNNK) typically of 3rd century AD groups was more common amongst this group than the Rossington Colliery assemblage. Typical jar forms were present including everted rimmed jars, narrow necked jars, jars with outcurved rims were common but a greater number of Blaxton type lidseated jars and cavetto type jars were present than the Rossington Colliery assemblage suggesting a greater proportion of pottery dating to the 3rd century AD was retrieved here (Rowlandson 2013b). A number of split-rimmed jars (J170) were also present supporting a similar date range. Beaker types present were restricted to a few examples of everted rim and folded types. Smaller bowl and dish forms were present, predominantly lipped bowls. The other forms included dishes with internal bead rims (D452) and groove rimmed dishes (DGR) of 2nd-century AD date, grooved flange types dating to the 3rd century AD, smaller quantities of plain rimmed dishes and straight sided bead and flanged bowls dating to the late Roman period. An example of a carinated lipped bowl (B318), a bowl with a distinctive inturned rim (B321V) and a thickly 'web rusticated' type jar provided strong evidence that an element of the pottery in the GREY1 and GREY8 groups was produced in the early Roman period (late 1st to early 2nd century AD). The range of forms present was similar to those seen on the Rossington Colliery site, heavily biased towards the 2nd century AD, but with a greater proportion of pottery that could be attributed a date in the early to mid-3rd century AD.

- 5.2.44 A small proportion of grey ware was attributed to the broad GREY group including a similar range of forms seen in GREY1 and GREY8 with the notable addition of a bowl with an expanded rim probably of 3rd-century AD date (BEX). Early Roman grey ware GREY2 was present in smaller quantities including lipped bows with carinated lower walls, native tradition wedge-shaped rimmed jars, a jar or beaker with a bead rim, everted rimmed jars including examples with thick rustication and a lug-handled jar. A similar range of early Roman forms was found at the Rossington Colliery site (Rowlandson 2013b) and at Doncaster (Buckland and Magilton 1986, fig. 40.300). A small number of the high-fired sherds in the GREY3 fabric variant were recorded including jars with everted rims; it is likely that they were overfired products of the local kilns. A single burnished grey ware sherd attributed to GREYB was recorded from the late Roman group from Layer 5226.
- 5.2.45 A further group of pottery could not be securely attributed to one of the existing fabric codes. The range of forms was broadly similar with the addition of a burnished grey ware wide-mouthed bowl with a developed rim (BWM3) similar to examples from Lincolnshire from ditch CG63, a dish with an in-turned bead rim from ditch 64 (D452) and a carinated lipped bowl from ditch 34.
- 5.2.46 A range of coarse local grey ware was recorded (GREYC1), probably coarser variants of fabric GREY1. Forms present were broadly similar including Blaxton type lid-seated jars, jars with out-curved rims, a plain rimmed dish and a straight sided bead and flanged bowl. Grey wares with grog inclusions were also present including a lug-handled jar, a Blaxton type jar, a Dales type jar and split rimmed jars with rilled shoulders (J170) in the GROG1 fabric suggesting production in the 3rd century AD. Examples of native tradition wedge rimmed jars were also present in the GROG2 fabric. These fabrics appear to have been used for the larger jar and bowl forms.

Other shell-gritted wares

- 5.2.47 Five hundred and ninety-seven sherds (5.696 kg, 5.79 RE) of other Roman shell-gritted wares were retrieved.
- 5.2.48 The Roman shell-gritted wares from this site were predominantly in the Dales ware tradition (DWSHT), most probably transported to the site from north-west Lincolnshire as the fabrics from there are very similar. The rim forms were almost exclusively of the internally bevelled lid-seated type as illustrated by Gillam (1970, type 157) that is most commonly seen in northern Lincolnshire rather than the 'flat topped' lid-seated jar variant seen more commonly in eastern Yorkshire (Monaghan 1997, JD2). Dales ware was present within many of the features, with significant quantities from ditches CG35, CG62 and the cropmark enclosure feature. Dales ware is commonly found on sites in the Doncaster area dating to the 3rd to 4th century AD and the pottery from this assemblage appears similar to what might be expected of contemporary groups (Rowlandson 2013a, 2015; Leary et al 2008).
- 5.2.49 A smaller quantity of completely handmade shell-gritted pottery in the 'proto-Dales ware' tradition was also noted (SHEL2, described in Rowlandson 2013a; see Rigby and Stead 1976, 189). This fabric was very similar and almost interchangeable with the Dales ware (DWSHT) in this fabric but the manufacturing style was different. It is likely that featureless body sherds of this fabric have been recorded under the DWSHT code. The majority of the sherds were from the typical handmade jars with tall everted rims with rounded tips that have been considered to have been first produced in the second half of the 2nd century AD and to predate the development of the Dales ware jar rim type. The vessels attributed to this fabric were retrieved from ditch 62 and feature 5235.

- 5.2.50 Sherds of the wheel-made SHEL2 fabric were present in small numbers (Rowlandson 2013a). This fabric is similar to examples of shell-gritted wheel-made split rimmed jars made at Torksey (Oswald 1936–37, pl. I.4; Buckland and Dolby 1980, fig. 4.24), excavations at Rossington and Doncaster have produced examples of this form probably dating to the first half of the 3rd century AD (Rowlandson 2013a). All of the vessels in this fabric appeared to be jars with examples retrieved from ditch CGs 36, 55, 62, 66 and feature 5256. The split rimmed jar form was the only recognisable form type (J170).
- 5.2.51 A small group of shell-gritted sherds, mostly small scraps, could not be securely attributed to one of the fabrics and were recorded using the SHEL code.
- 5.2.52 No examples of the wheel-made late Roman double lid-seated jars of the type that have been found from the latest groups of Roman pottery from northern Lincolnshire or South Yorkshire were retrieved. This fact coupled with the absence of Huntcliff or Crambeck wares suggests that pottery supply ceased in the first half of the 4th century AD, before such wares gained market share in this area.

Post-Roman pottery

- 5.2.53 A total of 38 post-Roman and possible post-Roman sherds was retrieved (0.419kg, 0.07 RE). The majority of these vessels were modern glazed wares. A modern glazed white ware sherd was retrieved from ditch 4803, a brown-glazed earthenware sherd from ditch 4503 and a modern black-glazed earthenware sherd from ditch 2682. These sherds suggest the possibility of some low level night soiling and many of these sherds may be intrusive within Roman features.
- 5.2.54 Sherds from two reduced ware vessels with thin walls from trackway 2543 and pit 2189 were either late Saxon/Medieval or atypical local Roman vessels. It is recommended that these vessels be presented to a post-Roman pottery specialist before any analysis report is completed.

Taphonomy

- 5.2.55 The average sherd weight of Iron Age and Roman pottery from the excavation was 19.22 g per sherd. For a rural assemblage the pottery is relatively fresh, with some groups in very fresh condition with large sherds present. This contrasts well with an average sherd weight of 15.9g from Rossington Colliery and 19.01g from Hatfield Lane, Doncaster (Rowlandson 2013b). The vast majority of the pottery was retrieved from ditch fills (72.32% by sherd count, 72.56% by weight, 70.42% by RE). A similar pattern was seen from the Rossington Colliery site (90.48% by sherd count, 86.59% by weight and 90.26% by RE) and Hatfield Lane, Doncaster (72.15% by sherd count, 57.89% by weight and 70.6% by RE).
- 5.2.56 The remaining pottery was retrieved from gullies, layers, kiln/ovens pits/post-holes and unstratified deposits. This is common with rural sites where traces of buildings, banks and discrete features have often been heavily truncated and the largest assemblages are traditionally retrieved from ditches. The majority of contexts produced only small quantities of Roman pottery with a few very large groups: 145 contexts contained between 1–20 sherds, 45 contexts with between 21–100 sherds and only 17 contexts with more than 100 sherds.
- 5.2.57 A brief discussion and description of the key groups of pottery has been presented below. A full context by context date and description has been prepared (held in project archive).



Ungrouped features

5.2.58 One thousand, two hundred and forty-one sherds (19.889 kg, 15.95 RE) were retrieved. The majority of the ungrouped features contained little pottery. A description of the pottery retrieved from some of the key features is provided below, with further information available in the archive.

Kiln/oven 5017

5.2.59 Thirty-two sherds (0.202kg, 0.13 RE) were retrieved from this feature included grey ware and a shell-gritted Dales ware jar dating to the 3rd century AD or later.

Trample layer 5072

5.2.60 Seventy sherds (1.228kg, 1.40 RE) were retrieved from this layer which included sherds of samian, colour coated sherds from a scale and folded beaker, a grey ware lipped bowl, a narrow necked jar and a large bowl.

Kiln/oven 5129

5.2.61 Twenty-two sherds (1.77kg, 0.24 RE) of grey ware were retrieved from this feature, which included a sherd from a Blaxton type lid-seated jar.

Kiln/oven 5135

5.2.62 Forty-seven sherds (0.707kg, 0.41 RE) were retrieved from this feature mainly consisting of grey ware including sherds from a narrow necked jar and a narrow necked jar. Also present was a sherd from a Dressel 20 amphora.

Kiln/oven 5218

5.2.63 A single sherd from a Crambeck ware mortarium with a hammer head rim dating to the late 3rd to 4th century AD was retrieved from this feature.

Pit 5222

5.2.64 One hundred and fifty sherds (2.426kg, 2.08 RE) were retrieved from pit 5222. A fresh medium sized group including samian, sherds from a gritty Dressel 20 amphora, a lipped bowl and a dish with a grooved rim were retrieved from context 5257 which date to the late 2nd century AD or later. Fill 5223 contained a medium sized group including sherds from a Mancetter-Hartshill type mortarium with a reeded hammerhead rim, a grey ware straight sided bead and flange bowl and shell-gritted Dales ware jars. Sherds from a colour coated beaker and samian were also present. This group dated to the late 3rd to 4th century AD.

Working hollow 5256

5.2.65 One hundred and eighty-two sherds (2.863kg) were retrieved from this feature which could be dated to the 3rd century AD. This fresh group consisted of samian, Blaxton type lid-seated jars, sherds from a grey ware dish with a plain rim, a grey ware lipped bowl, Mancetter-Hartshill type mortaria, sherds from a colour coated scale-decorated beaker, native tradition ware and a lid-seated jar in a coarse quartz-gritted fabric.

Burnt area 5259

5.2.66 Ninety-seven sherds (1.489, 0.50 RE) were retrieved from this feature which dated to the late 3rd to 4th century AD. The group included sherds from a Mancetter-Hartshill mortarium, a grey ware straight sided bead and flange bowl, oxidised ware and sherds from shell-gritted Dales ware jars.



Grouped Features Ring ditch CG14

5.2.67 Forty-nine sherds (0.307 kg, 0.83 RE) were retrieved. This assemblage dated to the 1st century AD probably in the pre- to peri-conquest period. The fabrics consisted of quartz sand- and shell-gritted fabric types including jars with wedge-shaped rims, a jar with cordoned decoration (Rowlandson 2013b, no. 3) and a beaker with an everted rim. This group appeared similar to the Iron Age material from the Phase 2 deposits at the Rossington Colliery site (Rowlandson 2013b).

Ring ditch CG15

5.2.68 Twenty-six sherds (0.223 kg, 0.52 RE) were retrieved. This assemblage also dated to the 1st century AD probably in the pre- to peri-conquest period. A small scrap of grey ware from context 3029 appears likely to have been intrusive. The fabrics consisted of quartz sand- and shell-gritted fabric types including a necked jar or beaker (broadly as Elsdon 1996, type group 3), jars with wedge-shaped rims (eg, Darling and Precious 2014, no. 690) and a jar with cordoned decoration and a triangular rim (Rowlandson 2013b, no. 1). This group appeared similar to the Iron Age material from ring ditch CG14 and the Phase 2 deposits at the Rossington Colliery site (Rowlandson 2013b).

Ditch CG34

Seven hundred and forty-two sherds (17.022 kg, 11.46 RE) were retrieved. The pottery 5.2.69 from this ditch ranged in date from the early Roman period (contexts 1528, 1529 and 2521) to the late 3rd to 4th century AD, the majority being from the later period. Small quantities of later 1st to 2nd century pottery within some of the later fills including Rossington Bridge Black Burnished ware 1, a small quantity of native tradition ware, grey ware rusticated jars, a grey ware bowl form (B318) and a Black Burnished ware 1 jar (Gillam 1970, fig. 1.1) all of which predated the 3rd century AD. Samian present included South Gaulish samian and Central Gaulish samian sherds (see Monteil, above). The sherds of Dressel 20 amphora and Gaulish wine amphora were also probably produced prior to the 3rd century AD. The presence of a number of Blaxton type lid-seated jars, later Roman large bowls (BLD3-4), grey ware straight sided bead and flanged bowls, a Cantley type mortarium with a triangular rim, a range of oxidised bowls mimicking samian forms (eg. Buckland and Magilton 2005, fig. 15.63/64 and fig. 15.81) and oxidised self-slipped fabric (SYOXCC) all suggest that the feature was open until the late 3rd to 4th century AD. The range of samian, a sherd from a colour-coated beaker (CC1) and local late Roman copies of samian bowls suggest that the inhabitants of the site had access to table ware as well as a range of local utilitarian grey wares.

Ditch CG34/36

5.2.70 Twelve sherds (0.442 kg, 0.16 RE) were retrieved including a Dressel 20 amphora sherd in a gritty fabric, a small quantity of grey ware including a sherd from a lipped bowl and native tradition ware sherds that date to the 2nd century AD.

Ditch CG35

5.2.71 Two hundred and ninety-four sherds (3.617 kg, 3.24 RE) were retrieved. The pottery group appeared to be more consistently of mid-2nd to late 3rd or earlier 4th century AD date. Vessels present included a fragment from a Dressel 20 amphora, a Parisian ware base trimmed to a disc, the base from a Rossington Bridge mortarium, a small quantity of local oxidised wares, Derbyshire and shell-gritted Dales ware jars were also present. A sherd from the SYOXCC vessel found in ditch CG34 was also present in this group. Grey wares included a Dales type jar, bowls with no neck (BNNK, South Yorkshire form H(b)), sherds from a colander and a plain rimmed dish in a coarse grey ware fabric. A small



quantity of samian from Rheinzabern and Central Gaul (Monteil, above). This assemblage had less early Roman pottery from it than ditch CG34 but with the addition of shell-gritted Dales ware.

Ditch CG36

5.2.72 Three hundred and ten sherds (5.70 kg, 6.64 RE) were retrieved. The majority of the pottery from this group could be dated to the later 2nd until the middle of the 3rd century AD. The group included a sherd from a Dressel 20 amphora, a possible small fragment of Black Burnished ware 2, local Rossington Burnished ware (GBB1), sherds from a lid-seated Derbyshire ware jar, a sherd of shell-gritted Dales ware, jars with split rims and rilled shoulders in grog-gritted and shell-gritted fabrics (J170, South Yorkshire form E(c)), a grey ware lid-seated jar with a rilled shoulder, a grey ware bowl with no neck (BNNK, South Yorkshire form H(b)) and large grey ware bowls (BLD1-3). Many of the key indicators of a late Roman date were absent such as copies of samian table ware forms, plain rimmed dishes and straight sided bead and flanged bowls that were present in ditch CG34. A large grey ware bowl with a club rim (BLD3) was perhaps the latest vessel present and may suggest some pottery from the second half of the 3rd century AD was present.

Gully CG37

5.2.73 Three sherds (0.033 kg, 0 RE) were retrieved. The grey ware present could only be broadly dated to the Roman period.

Gully/beamslot CG38

5.2.74 Ten sherds (0.239 kg, 0 RE) were retrieved. This small group including grey ware and shell-gritted Dales ware. This group could be dated to the 3rd century AD, probably to the mid- to late 3rd century AD or later.

Ditch/gully CG39

5.2.75 Four sherds (0.066 kg, 0.11 RE) were retrieved. This small group including sherds from a local Black Burnished ware 1 jar and a grog-gritted sherd from sample 566. This group dated to the mid to late 2nd century AD.

Ditch CG40

5.2.76 Four sherds (0.070 kg, 0.18 RE) were retrieved. This small group including sherds from a grey ware bowl with a grooved rim that dated to the mid-2nd century AD or later.

Ditch CG41

5.2.77 Forty sherds (1.282 kg, 0.63 RE) were retrieved. This group included sherds from a fine grey ware necked jar or beaker, a Black Burnished ware 1 jar with an everted rim, shell-gritted Dales ware, a grey ware jar with an out-curved rim, a large conical bowl with a drooping lip (Cregeen 1957, fig. 4.151- 2) and another with a club rim (Buckland and Dolby 1980, fig.4.31). The material ranged in date from the mid-2nd to the 3rd century AD. This group was probably deposited in the second half of the 3rd century AD.

Gully CG42

5.2.78 Thirty-four sherds (0.362 kg, 0.28 RE) were retrieved. This small group included a range of grey ware including a lug-handled jar and a large bowl probably dating to the mid-2nd century AD or later.



Gully CG43

5.2.79 Two sherds (0.118 kg, 0.1 RE) were retrieved. This small group included a sherd from a grey ware lipped bowl that could be dated to the 2nd century AD or later.

Ditch CG45

5.2.80 Sixteen sherds (0.226 kg, 0.29 RE) were retrieved. This small group included sherds from a large bowl with a rounded rim (Darling 1999, fig. 36.370) and a grey ware reeded rim bowl (possibly a colander). The group could be dated to the mid to late 2nd century AD or later.

Ditch CG46

5.2.81 Eighty-nine sherds (0.991 kg, 1.62 RE) were retrieved. This group could be dated to the mid- to late 2nd century AD or later and included a sherd of Derbyshire ware, fine oxidised ware, a sherd from a Dressel 20 amphora in a gritty fabric, a sherd of local Black Burnished ware 1, a native tradition ware sherd, grey ware including jars with out-curved rims and a dish with a grooved rim. The presence of the Derbyshire ware sherd may suggest a date in the 3rd century AD as, although produced from AD140 onwards in Derbyshire, it was more widely distributed in the 3rd century AD. A single sherd of Central Gaulish samian was retrieved from this group.

Gully CG47

5.2.82 Ten sherds (0.075 kg, 0.15 RE) were retrieved. This small group included a grey ware jar with an everted rim, which could be broadly dated to the Roman period.

Ditch CG49

5.2.83 Three sherds (0.008 kg, 0 RE) were retrieved. A small group of oxidised sherds were retrieved from this feature that could be dated to the Roman period.

Ditch CG51

5.2.84 Fourteen sherds (0.196 kg, 0.49 RE) were retrieved. A small group of abraded Roman sherds and rim sherds from a dish with a reeded rim probably dated to the 2nd century AD. A rim sherd from a dark glazed large bowl or pancheon of modern Black glazed earthenware was also present.

Ditch CG55

5.2.85 One sherd (0.016 kg, 0 RE) was retrieved: a single shell and grog-gritted sherd possibly dating to the 1st to early 2nd century AD.

Ditch CG56

5.2.86 Four sherds (0.004 kg, 0 RE) were retrieved from this group. These tiny fragments of pottery or fired clay could not be closely dated.

Trackway CG61

5.2.87 Thirty-two sherds (0.284 kg, 0 RE) from a single handmade jar with thin walls and a sagging base, probably of medieval date, were retrieved. This vessel should be presented to a specialist at the analysis stage to refine this preliminary identification.

Ditch CG62

5.2.88 Two thousand, two hundred and eighty-five sherds (46.532 kg, 49.07 RE) were retrieved. The pottery attributed to this group made up about one third of the total assemblage studied and represented the full range of material in use on the site both by function and



by date. It appears likely that, as a major boundary around the settlement, it was a convenient place for the disposal of domestic waste including ceramics.

- 5.2.89 The range of fresh material retrieved from this ditch system suggests that it received fresh groups of pottery throughout much of the Roman period and may have been open and maintained until the site was abandoned perhaps sometime in the 4th century AD. There was no strong evidence for material dating to the second half of the 4th century AD or later but, as has been observed for other sites in South Yorkshire, pottery of that date is rare (Rowlandson 2013b, 2015; Buckland and Magilton 2005).
- 5.2.90 Groups of early Roman material were retrieved from contexts 2625, 2626, 5123 and 5200. This pottery included a range of Dressel 20 amphora, early Roman grey ware and native traditional early Roman jars and large bowls. These contexts contained fresh fragments which would suggest it had not been disturbed and redeposited however this material was found in basal, middle and upper fills and may represent material that had been originally incorporated with upcast from the original excavation of the ditch then redeposited when the feature was filled in. Smaller quantities of native tradition ware were also found redeposited with 3rd-century pottery. Sherds from the same two large jars or bowls (D48 and D51) were retrieved from contexts 2625, 2626 and associated with pottery of the 3rd century AD in context 2631.
- 5.2.91 Notably, contexts 5303 and 5304 contained large significant groups of late Roman pottery including a Black Burnished ware 1 jar with a cavetto rim, sherds from a colour-coated beaker and jar or flagon, a range of shell-gritted Dales ware jars, a Cantley type mortarium with a hammer head type rim, oxidised bowls, a typical range of grey ware including later large bowl variants (BLD3 and BLD4), a wide-mouthed bowl (BWM3) and straight sided bead and flanged bowls. Also present in these contexts were Central Gaulish samian, Dressel 20 amphora, local grey ware and Rossington Black burnished ware 1 type vessels dating to the 2nd century AD. Mancetter/Hartshill mortaria, Blaxton type lid-seated jars and examples of Buckland's 'shouldered bowl' type (recorded as BNNK, South Yorkshire form H(b)) all suggested that material dating to the 3rd century AD was also deposited. Although the inclusion of pottery of a broad range of dates may represent a final clearance of the site, it is likely that the feature received material throughout the life of the settlement and some earlier re-deposited material was present in the upper fills due to episodes of ditch maintenance.

Ditch CG63

5.2.92 One hundred and fifty-two sherds (5.163 kg, 4.59 RE) were retrieved. The pottery from this ditch was more consistently of 3rd and later 3rd-century date. There were no sherds of samian or amphora and a very limited quantity of the Rossington Bridge Black Burnished ware 1 that was known to have been produced in the 2nd century AD. Significant vessels present included a large proportion of a Dorset Black burnished ware 1 jar with a cavetto rim and obtuse burnished lattice decoration (D78), a small quantity of shell-gritted Dales ware, and a sherd from a Mancetter/Hartshill mortarium with a hammer-head rim. Grey ware forms present included a large bowl with a rounded rim (form B411), another large bowl with wavy line decoration (BLD2, D81), a large bowl with a drooping flange (BLD4), small bowls with grooved flanges, and a straight sided bead and flanged bowl. A notable inclusion was a grey ware wide-mouthed bowl with burnished surfaces similar to examples seen amongst late Roman groups from Lincoln (BWM3, D80). This range of material would suggest that the feature was probably open sometime in the later 3rd century AD and backfilled in the late Roman period.





Ditch CG64

- 5.2.93 One hundred and seven sherds (2.156 kg, 1.98 RE) were retrieved. The pottery from this group predominantly dated to the second half of the 2nd century AD. The material present included a Black Burnished ware 1 lipped bowl, a Mancetter/Hartshill mortarium with fired clay trituration grits, large grey ware bowls, a dish with a grooved rim, a hemispherical bowl in an oxidised fabric and a lid-seated jar in the coarse oxidised OXC1 fabric. A dish with an in-turned lip (D452), probably dating to the first half of the 2nd century AD, was also present in a fill from this feature.
- 5.2.94 Sherds from a Dales ware shell-gritted jar, a grey ware dish with a plain rim and a shouldered bowl (BNNK) would suggest that a small amount of the pottery from this feature may have been produced in the 3rd century AD. The sherds from these three vessels may have been intrusive within the upper fills of the feature.

Shallow feature/pit spur CG64

5.2.95 Sixty-two sherds (2.173 kg, 2.49 RE) were retrieved. The pottery from this feature was predominantly of later 3rd-century AD date with a small quantity of earlier material including a native tradition sherd, a warped grey ware bowl (B318) and a sherd from a dish also present in the fills of ditch CG64 (D452, above). The majority of the material was typical of a later 3rd-century date including a Black Burnished ware 1 jar with a cavetto rim and obtuse lattice decoration (D86), a Cantley type mortarium with a bead and flanged rim, a hemispherical flanged bowl in a local oxidised fabric (D70) and grey ware straight sided bead and flanged bowls. Examples of a 'shouldered bowl' (BNNK) and a Blaxton type lid-seated jar (JLSBX) of 3rd-century AD date were also present.

Kiln CG65

5.2.96 Thirty sherds (0.646 kg, 0.34 RE) were retrieved from the infilling of a crop drying kiln. This small group including sherds from a Dressel 20 amphora, a lipped bowl or dish, a grey ware necked jar and a jar with an out-curved rim. The group could be dated to the mid-2nd century AD or later.

Ditch CG66

- 5.2.97 Two hundred and thirty-five sherds (4.109 kg, 4.56 RE) were retrieved. The pottery from this group predominantly dated to the 3rd century AD with examples of grey ware Blaxton type lid-seated jars (JLSBX), and jars in the SHEL1 fabric including one with a rilled shoulder that might date to the first half of the 3rd century AD. A Black Burnished ware 1 dish with a plain rim, grey ware jars with more developed cavetto rims and a large bowl with combed wavy line decoration (BLD2, D67) suggest that some of the material present may have been manufactured in the late 3rd century AD. Sherds from two colour-coated beakers were also recorded including a folded type.
- 5.2.98 A small quantity of native tradition ware, Rossington Bridge Black Burnished ware, Central Gaulish samian and possibly the grey ware dishes with grooved rims from this group were manufactured prior to the 3rd century AD.

Gully CG67

5.2.99 Two hundred and thirty-six sherds (2.272 kg, 2.58 RE) were retrieved. The pottery from gully group 67 predominantly dated to the mid- to late 2nd century AD. This group mostly consisted of local grey wares including lipped bowls, dishes with grooved rims, rusticated jars and jars with out-curved rims. A large native tradition bowl with a wedge-shaped rim in a coarse grey ware fabric was also noted. A Blaxton lid-seated jar and a 'shouldered



bowl' from this feature suggest that some of the pottery may have been deposited in the early 3rd century AD.

5.2.100 A heavily worn Verulamium region mortarium with a hooked rim was retrieved from this group (Castle 1972, M7; Hartley in Hinton (ed) 1988, fig. 120.1012). This vessel was produced in the Flavian to Trajanic period and was probably a well-worn heirloom by the time it was disposed of.

Ditch/gully CG68

- 5.2.101 One hundred and eighty-five sherds (3.224 kg, 5.01 RE) were retrieved. The pottery from this group predominantly dated to the 3rd century AD with a small proportion that probably dated to the end of the 3rd century AD.
- 5.2.102 Fine wares present included sherds from colour-coated beakers in the CC1 fabric group, including a cornice rimmed type with barbotine decoration probably produced in the Lincoln/South Carlton area in the 2nd century AD and a folded and scale decorated vessel probably produced in the 3rd century AD. A small proportion of Central Gaulish samian and East Gaulish samian from Rheinzabern were also present.
- 5.2.103 Sherds from Mancetter/Hartshill type mortaria were present dating to the late 2nd to earlier 3rd century AD (Darling and Precious 2014, no. 1628) and a small quantity of Rossington Bridge Black Burnished ware. A Black Burnished ware 1 jar with a cavetto rim dating to the late Roman period was present along with sherds from shell-gritted Dales ware jars. The majority of the vessels present were local grey wares including large bowls, a 'shouldered bowl', lug-handled jars, a jar with a split rim, dishes with grooved rims, and lipped bowls. No sherds from straight sided bead and flanged bowls or dishes with plain rims were present so it is likely that this assemblage was mostly deposited by the middle of the 3rd century AD.

Ditch/trackway CG69

5.2.104 Twenty-three sherds (0.352 kg, 0.3 RE) were retrieved. This small group included a fragment from a large grey ware bowl and a lipped bowl. A date in the mid-2nd century AD or later would be appropriate for this group.

Bridleway watching brief area and trenches 40-46

5.2.105 Eight hundred and nine sherds (18.021 kg, 15.22 RE) were retrieved. This large group contained a range of pottery dating to the 2nd and 3rd century AD. A single modern sherd from this group was probably intrusive.

Discussion

- 5.2.106 This assemblage is an interesting addition to the growing number of Roman pottery assemblages from the Doncaster environs. The group suggests activity on the site from the 1st century AD until the late 3rd/ earlier 4th century AD.
- 5.2.107 Ring gullies CG14 and CG15 suggest the possibility of activity on the site prior to the Roman conquest. Although there has been little pottery of this date retrieved from South Yorkshire a small but growing number of assemblages of Iron Age pottery from the Doncaster area has been recognised amongst recent excavations. Evidence of pottery prior to the 1st century AD is very limited perhaps including small quantities from sites at Sutton Common and Balby Carr (Van de Noort et al 2007; Archaeological Services WYAS 2008a, 2008b; Cumberpatch 2016; Daniel 2016). This small group provides a further example of settlement in this area during the 1st century AD, similar to those seen at the



Rossington Colliery site (Rowlandson 2013b), suggesting it was inhabited at the time the Rossington Bridge vexillation fort was constructed. Smaller quantities of contemporary wares were also recognised within other later deposits elsewhere on the site. A growing number of similar later Iron Age sites with small quantities of similar fabrics are also known from the area including Adwick-le-Street (Cumberpatch 1993, 2002).

- 5.2.108 The stability of Roman rule and the stimulus of being located close to the vexillation fortress at Rossington Bridge, and subsequently the fort and vicus at Doncaster, stimulated production in the surrounding countryside (Rowlandson 2013a, 2013b, 2014, 2015, 2016a; Leary et al 2008). The proximity of vibrant pottery production sites in the 2nd and 3rd centuries AD offered the inhabitants a readily available source of wheel-made pottery which, in turn, has provided modern day archaeologists a clear indication of the sites that were occupied. A similar pattern has been seen from the environs of the Castleford and Derby forts (eg, Rowlandson 2016a, 2016b, 2018).
- 5.2.109 The cavetto rimmed jars, plain rimmed dishes, straight sided bowls with bead and flanged rims and Dales ware from this assemblage suggest that occupation continued into the late Roman period. It is unlikely that any Roman pottery reached this site by the late 4th century AD as the characteristic later 4th-century forms, which probably arrived from Lincolnshire (eg, Darling 1977), were not present. East Yorkshire Holme on Spalding Moor grey wares and the diagnostic Huncliff or Crambeck forms that indicate 4th-century activity (Evans 2001) were also absent. 'Type fossils' of the later 4th century AD have been found in South Yorkshire on other sites such as Doncaster (Buckland and Magilton 1986) and Scaftworth (Bartlett and Riley 1958), but are not represented at this site. Despite a general reduction in the quantities of Roman pottery in use on rural sites in this area at the end of the 4th century AD (Buckland and Magilton 2005, 52), there were few, if any, sherds present that must suggest domestic occupation of this site at this time. It is likely that the inhabitants had moved elsewhere during the 4th century AD with the site perhaps reverting to agricultural use rather than domestic or industrial activity. It is difficult to characterise occupation in South Yorkshire at the end of the 4th century AD as pottery use appears to have been sparse, a pattern known to have continued into the Saxon period. Occupation on the site may have continued after the middle of the 4th century AD but this could not be supported by evidence from the pottery assemblage.

5.3 Ceramic building material (CBM)

- 5.3.1 All of the CBM recovered is of Romano-British date. The small assemblage is in fragmentary and abraded condition. Where possible, fragments have been attributed to specific brick/tile type, but these fragments are in the minority (maximum 11 *tegulae*, 3 *imbrices*), and the remainder have been classified merely as 'flat fragments' or 'undiagnostic'. No detailed fabric analysis has been undertaken; fabrics show some variation in the frequency of sandy inclusions and iron oxides, but there is nothing to suggest that this variation reflects widely differing sources for the CBM; all could have been at least relatively locally produced.
- 5.3.2 The CBM occurred in small quantities across various trenches; there are minor concentrations in trench 92, and SMS areas 13 and 28.

5.4 Fired clay

5.4.1 The fired clay consists entirely of material that is likely to be of structural origin (hearth/pit linings or upstanding structures)—no portable objects were identified. Fabrics vary from slightly sandy to silty, in some cases containing rare organic inclusions, but frequently exhibiting 'marbling' and streakiness due to incomplete mixing. These fabrics are all likely



to have arisen from the *ad hoc* use of local clay resources, without any intensive preparation.

- 5.4.2 The most diagnostic pieces came from the fills of Romano-British crop drying kiln CG65, which accounts for all the fired clay from SMS28; many of the fragments from this feature have surviving surfaces, mostly irregular but flattish, some exhibiting curvature and one piece retaining part of an opening.
- 5.4.3 Other fragments are small, generally abraded, and completely undiagnostic. One fragment came from SMS2, and the remainder from SMS13 (Romano-British enclosure ditch 34).

5.5 Flint

5.5.1 Thirty-one pieces of flint were recovered, as in Table 13. The condition of the flint was generally good, with many pieces in close to mint condition. There were a few pieces that showed signs of plough zone and post-depositional damage.

Flint Types	No.	% of
		assemblage
Retouched tools:		
Miscellaneous retouch	4	12.9%
Scraper	3	9.7%
Retouched tools sub-total	7	22.6%
Debitage:		
Flakes (incl. broken)	15	48.4%
Blades (incl. broken)	5	16.1%
Bladelet cores	1	3.2%
Debitage	3	9.7%
Debitage sub-total	24	77.4%
Total	31	100%

 Table 13
 Breakdown of flint assemblage

5.5.2 Chronological indicators are restricted to one bladelet core from ditch 5194 (SMS28), which is probably Mesolithic. There are four broken blades: from CG36 (SMS13), layer 2728 (SMS20), topsoil in evaluation trench 43, and a burnt example from layer 2586 (natural in SM28). All indicate that activity potentially dating from the Mesolithic through to the Early Neolithic was present within the area. The only formal tool forms recovered consisted of three scrapers, two from subsoil layer 2143 and one from 2242 (ditch 2243). These are undatable. There are no significant concentrations of flint, and it is likely that all the pieces are redeposited.

5.6 Stone

5.6.1 The stone includes 19 quernstone fragments, of which nine are small fragments of imported lava quern (from subsoil in SMS28), while the rest are larger fragments of rotary querns, of which at least four are sufficiently diagnostic to demonstrate that they belong to beehive forms, a form originating in the Middle Iron Age and continuing in use well into the Romano-British period. At least one other is probably from a disc form (other fragments are undiagnostic). Most of the rotary querns are in coarse gritstone, although one is in a possible igneous rock. Seven came from SMS28 (from various features), with single examples from SMS2, 13 and 27. A further fragment of gritstone with one flat surface (SMS13, gully 2503) could be part of a quernstone, but is not sufficiently diagnostic.



- 5.6.2 One other object was recovered: a whetstone, worn very smooth, with concave surfaces and edges (SMS13, ditch CG34).
- 5.6.3 Other stone fragments include two slab-like pieces, both in fine-grained sandstone, one visible micaceous, that could have been used as building material (SMS28, kiln 2591 and dump layer 5235). Two small fragments from kiln 5017 (SMS28), heavily burnt, appear to have been used as kiln lining. There are also two rounded pebbles, neither of which show any obvious sign of working or utilisation.

5.7 Amber

5.7.1 Two amber beads, of probable Bronze Age date, were recovered in extremely poor condition from a cleaning layer over a posthole group during the St Catherine's Well Stream strip, map and sample. One of the beads subsequently disintegrated; it was originally probably of globular form. The surviving bead is also of globular form; one half survives.

5.8 Glass

5.8.1 Four very small fragments of glass were recovered. None are clearly chronologically diagnostic, although one colourless vessel fragment from layer 2536 (SMS26) is likely to be Romano-British, as is a pale blue/green vessel fragment from ditch 5051 (SMS28). A small vessel fragment in brown glass from possible hearth base 2267 (SMS13) is not convincingly Romano-British, but is dated as such on grounds of provenance. A tiny colourless chip retrieved from a soil sample taken from ditch 5152 (SMS13 extension) is neither datable nor demonstrably from a vessel; it could be intrusive.

5.9 Slag

- 5.9.1 Only a small amount of material was collected and recorded as slag (14 fragments, weighing 577 g). Of this, eight fragments can be characterised as ironworking slag. These fragments came from SMS2 and 13 (including a possible hearth bottom from ditch CG34), but in neither area are quantities anywhere near large enough to suggest on-site metalworking, instead representing redeposited waste from metalworking activity elsewhere.
- 5.9.2 Other fragments represent vesicular fuel ash slag and vitrified ceramic material (SMS13 and 28), but again redeposited from its original point of discard.
- 5.9.3 This material is of uncertain date, but on grounds of provenance is likely to be Romano-British.

5.10 Metalwork

5.10.1 Metalwork includes coins (10), as well as objects of copper alloy (14), lead (41) and iron (25).

Coins

5.10.2 Ten coins were recovered, all copper alloy issues, Eight are Roman (all found unstratified) and two post-medieval (both from topsoil in evaluation trenches). Only one of the Roman coins is identifiable at this stage: a well-preserved issue of Julia Domna (AD 194–217). Others are in poor condition, but some detail is visible on X-ray, and selective cleaning may aid identification.



5.10.3 The post-medieval coins comprise a halfpenny in poor condition, possibly either George II or George III (trench 44) and a halfpenny of George V, dated 1924 (trench 42).

Copper alloy

- 5.10.4 Apart from coins, 14 other copper alloy objects were recovered. Two are brooches. One of these (CG35, SMS13) is a Celtic fantail type dating to the later 1st century AD; the type has a distribution focusing on the east Midlands (Bayley and Butcher 2004, 168, fig. 79, no 238). The other, an unstratified find, is a trumpet-headed type, dating to the 1st or 2nd century AD (*ibid.*,160–4, fig. 130). There are also two pins. One has a large globular head (Crummy type?); this example came from ditch 5157 (SMS13). The second, from layer 5071 (SMS28) is a highly stylised example with a head in the form of a hand plucking fruit, for which parallels are known from Castleford (Cool 1998, 59–60, fig 18.181; Greep 1998, 271, fig 117.30–1). Another example, dated 1st/2nd century AD, is known from Silchester, Hampshire (http://www.reading.ac.uk/silchester/discoveries-at-silchester/sil-discoveries.aspx#hand).
- 5.10.5 Other objects are either later in date, or undated. One is a post-medieval plain disc button (18th century or later) from trench 11 (topsoil). Five further disc post-medieval buttons were found still attached to textile fragments (found unstratified in a waterlogged condition). A suspension ring (possibly for curtains, of probable post-medieval date) was found unstratified. Other objects are of uncertain function, and include a small sheet fragment (ditch 5292, SMS28), a short length of thin, square-sectioned shank (ditch 4408, evaluation trench 44); and a corroded lump (ditch 5169, SMS13).

Lead

5.10.6 The lead includes one possible pewter button of post-medieval date, found unstratified. A small, bun-shaped spindlewhorl, also an unstratified find, is of uncertain (possibly Romano-British) date. Other fragments are of uncertain date and function, and include an irregular, roughly disc-shaped piece, and fragments of waste or offcuts.

Iron

5.10.7 The iron is in poor, corroded condition, and has been identified primarily from X-ray. It consists mainly of nails (at least 16 examples). Other identifiable objects comprise an axe head (CG34, SMS13) and probable tool, possibly a chisel or punch (ditch CG62, SMS28), both from Romano-British features although not in themselves chronologically distinctive. A cylindrical 'collar' (diameter c. 90mm; height 40mm), also from CG34, is of uncertain function. Other objects are either small scraps, or unidentifiable.

5.11 Animal bone

5.11.1 A total of 5382 fragments (or 47.340 kg) of animal bone was recovered; once conjoins are considered this figure falls to just 2225 fragments (Table 14). The assemblage includes material of Iron Age, Romano-British and uncertain date, and came from evaluation trenches 3–5, 7, 10, 15, 40–44, 56, 69, 88, 90 and 92, SMS areas 2, 11, 13, 15, 17, 20, 22, and 27–28, and two watching brief areas (St Catherine's Well and the bridleway).

Methods

5.11.2 The assemblage was rapidly scanned and the following information quantified where applicable: species, skeletal element, preservation condition, fusion and tooth ageing data, butchery marks, metrical data, gnawing, burning, surface condition, pathology and non-metric traits. This information was directly recorded into a relational database (in MS Access) and cross-referenced with relevant contextual information.



Results

Preservation condition

- 5.11.3 Bone preservation varies from good to poor. The poorly preserved bones are all from deposits located in the extreme southern and western parts of the development area. This suggests that local conditions such as geology and soil pH have significantly impacted on bone preservation. Several contexts, mostly ditch fills, include bones in different states of preservation and this is a general indication that material has been reworked and redeposited from earlier contexts. The assemblage is quite fragmented due to poor preservation and taphonomic factors such as weathering and butchery, and this has resulted in a relatively lower identification rate (26%).
- 5.11.4 Gnaw marks were apparent on less than 1.4% of post-cranial bones. This is a very low occurrence and suggests that the assemblage has not been significantly biased by the bone chewing habit of scavenging carnivores, indicating it was deposited fairly rapidly rather than being left exposed for any length of time.

Late Iron Age to early Romano-British

- 5.11.5 A total of 321 fragments of bone came from features located in trenches 3, 4, 7, 10, 44, 56, 69 and 88, SMS2 and the watching brief at St Catherine's Well. The bones recovered from the evaluation trenches largely came from ditches, while those from SMS2 came from two roundhouse gullies CG14 and CG15.
- 5.11.6 Most of the bones recovered from ditches belong to cattle, they include a relatively large concentration from trackway ditch CG61 in trench 88. This group comprises long bones, vertebrae and small compact bones from the ankle. Cattle bones are also relatively common finds from the roundhouse gullies in SMS2, and are represented by a broader range of skeletal elements including cranial fragments.
- 5.11.7 A small number sheep/goat, horse and dog bones have also been identified from features of this date. It is worth noting that one of the horse bones is from an immature animal and could indicate local breeding.

Species	LIA to early RB	Romano- British	Undated	Total
cattle	45	373	32	450
sheep/goat	5	65	3	73
goat	-	1	-	1
pig	-	29	2	31
horse	3	17	1	21
dog	1	2	-	3
red/fallow deer	-	-	1	1
crow	-	1	-	1
passerine	-	1	-	1
amphibian	1	-	-	1
Total identified	55	489	39	583
Total unidentifiable	266	1260	116	1642
Overall total	321	1749	155	2225

Table 14	Animal bones: nui	ber of identifie	d specimens	present (o	r NISP) by period
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Romano-British

- 5.11.8 A relatively large amount of animal bone came from Romano-British features located in trenches 15, 40–41. 43–44, 90, 92, SMS13, 15, 17, 20 and 28, and the bridleway watching brief. The largest concentrations came from SMS13 and 28, specifically enclosure ditches CG34, CG40, CG41 and CG62.
- 5.11.9 Cattle bones dominate the Romano-British assemblage (76% NISP; Table 14) and particularly large concentrations came from CG40 and 41 in SMS13, and feature 5317 in the bridleway watching brief area. These groups comprise a wide range of skeletal elements many of which are near complete and suitable for further analysis. The group of bones from enclosure ditch CG40 includes the mandibles and foot bones from seven calves aged between 0–8 months. These animals are likely to have been culled to free milk up for consumption or to produce rose veal and reduce surplus stock. In addition to the large concentration of disarticulated cattle bones from CG41, the partial skeleton of a slightly older calf aged between 8–18 months was also recovered from this feature.
- 5.11.10 A small range of other species have also been identified from the Romano-British assemblage. These include, in order of relative frequency: sheep/goat, pig, horse, dog, goat, crow and a species of small song bird (or passerine). Some of the pig bones are from neonates and one of the horse bones, the proximal end of a metacarpal from enclosure ditch CG35, had been sawn through to produce a cylinder from the shaft for bone-working. The frontal part of goat skull, complete with horns attached came from enclosure ditch 4004 in trench 40.

Undated

5.11.11 A total of 155 bone fragments came from features of uncertain date. Most of the identified bones belong to cattle and include the complete skeleton of a calf from pit 400508 in trench 5. Small numbers of sheep/goat, pig and horse bones have also been identified, and a piece of red or fallow deer antler came from ditch 4408 in trench 44. The antler is from near the crown part of the antler and had been sawn through, indicating that this material is an off cut from antler-working.

Type of information	N
Age - fusion	162
Age - mandibles 2+ teeth	24
Biometrics	36
Butchery	31
Total	253

Table 15Quantity and type of detailed information available from further study of the
animal bone assemblage

5.12 Conservation

5.12.1 Finds which may be considered as vulnerable, and thus potentially in need of conservation treatment, comprise the metal objects, particularly the ironwork, which are actively corroding. Metal objects have already been X-rayed (see above), and the X-ray plates will act as a basic record for objects which may suffer further deterioration, and which may not be recommended for long-term curation.



5.13 Human bone

Introduction

5.13.1 Cremated bone was recovered from a single context (2710) in the south-east area of the Site (SM20). The nature of the deposit, comprising cremated bone mixed throughout the fill of the feature (2711) together with some fuel ash, is currently inconclusive. There is no direct dating evidence from context 2710, but the pit from which it was recovered cut through the fill of ditch 2755 at its junction with ditch 2753; as the ditches are believed to represent parts of a Romano-British field system, 2710 is likely to be of a similar date. A cremation-related deposit of early–mid-Romano-British date (confirmed by radiocarbon analysis) was recovered from a similar location (within a ditch fill) some 2 km to the north in an earlier phase of the archaeological investigations (Powell *et al.* in prep.).

Methods

5.13.2 The bone was subject to a rapid scan to assess its condition, demographic data and the presence of pathological lesions. The deposit type was assessed from the combined osteological and site context data. Assessments of age and sex were based on standard methodologies (Beek 1983; Buikstra and Ubelaker 1994; Scheuer and Black 2000).

Results

- 5.13.3 Although the pit had survived to a relatively substantial depth for features of this type (0.17 m), cremated bone and some fuel ash were evident at surface level, consequently, it is possible that some bone may have been lost due to horizontal truncation. The bone is slightly worn/eroded and chalky in appearance, and no trabecular bone (generally subject to preferential loss in an aggressive burial environment; here a sandy silt) was observed within the assemblage. It is probable that some loss of bone will also have occurred due to this taphonomic mechanism.
- 5.13.4 The 284 g of bone recovered represent the remains of a subadult/adult, >15 yr, of indeterminate sex. Several long bone shaft fragments appeared to have fine grained new bone (periosteal new bone) over parts of the surface, indicative of infection of the membrane covering the bone. Such infection may occur as a result of direct trauma, develop in response to an adjacent soft tissue infection, or spread via the blood stream from foci elsewhere in the body.
- 5.13.5 Although most of the bone is white in colour, indicating full oxidation (Holden et al 1995a and b), some is grey and other fragments are only charred demonstrating variable levels of oxidation. This most likely reflects a shortfall in the quantity of fuel used in the pyre construction, affecting both the temperature and duration of the cremation, though other mechanisms may have been involved.

6 ENVIRONMENTAL EVIDENCE

6.1 Introduction

6.1.1 A total of 290 samples were taken from a range of features during the different phases (evaluation trenching, watching brief and strip, map and sample) of the project. Subsequently, 246 bulk samples were processed for the recovery of charred environmental evidence and small finds; of these 209 were assessed for the presence of environmental evidence (Table 16); the sediments in two monolith samples were also described (below, and Appendix 4).

Phase	No. of monolith samples	No. of bulk samples taken	No. of bulk samples processed	No. of bulk samples assessed	Volume (litres)	Feature types
SMS1		3	-	-	-	Ditch
SMS2		36	26	26	705	Roundhouse postholes, gullies and pits
SMS3 & trench 4		2	1	1	18	Ditch
SMS4 & trenches 5–10		29	2	2	34	Ditches
SMS5–6		-	-	-	-	-
SMS7 &		2	2	2	31	Ditches
trenches 61–62						
SMS8–10		-	-	-	-	-
SMS11 &		3	3	3	80	Ditches
trench 28						
SMS12		4	4	4	80	Ditches
SMS13 &		29	29	29	754	Ditches, pits, layers
trench 15						
SMS14–19		-	-	_	-	-
SMS20		1	1		40	Cremation grave
SMS21–27		-	-	_	-	-
SMS28 & trench 92		64	64	64	1860.75	Crop dryers, kilns, hearths, ditches, cremation graves
SMS29 & trench 45		-	-	-	-	-
SMS30 & trenches 40–44		42	41	41	374.5	Pits, postholes, ditches
Trench 3a		1	1	1	27	Ditch
Trenches 75–78	1	2	2	2	37	Layer
St Catherine's Well WB		19	19	19	625	Ditches
St Catherine's well SMS	1	52	50	14	739 (309)	Postholes, ditches, layers
WB (Bridleway)		2	2	2	68	Ditches
Totals		290	246	209	5473.25 (5043.25)	

Table 16 Bulk and monolith sample provenance summary

6.2 Aims and Methods

6.2.1 The purpose of this assessment is the evaluation of the quality of plant remains preserved at the site and the potential for further analysis to address specific site archaeological issues and to provide archaeobotanical data valuable for wider research frameworks.

Macrofossils

6.2.2 The size of the bulk samples varied between 0.75 and 40 litres, and on average was around 23 litres. They were processed by standard flotation methods; the flot retained on



a 0.25 mm mesh, residues fractionated into 4 mm and 1 mm fractions. The coarse fractions (>4 mm) were sorted, weighed and discarded. Large flots were split into subsamples when their volume was large, but the whole flot was assessed if the density of evidence in the first subsampled examined was low. A riffle box was used to split large dry flots into smaller flot subsamples. Waterlogged flots were split by the grid/spoon method (Steiner et al. 2017). The flots were scanned using a stereo incident light microscopy at magnifications of up to x40 using a Leica MS5 microscope for the identification of environmental remains. The preservation and nature of the charred plant and wood charcoal remains, as well as the presence of other environmental remains such as molluscs, animal bone and insects (in cases of anoxic conditions for their preservation), was recorded.

6.2.3 Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000, tables 3, page 28 and 5, page 65), for cereals. Abundance of remains is qualitatively quantified (A*** = exceptional, A** = 100+, A* = 30–99, A = >10, B = 9–5, C = <5) as an estimation of the minimum number of individuals and not the number of remains per taxa.</p>

Sediments

6.2.4 The monoliths were cleaned prior to recording and standard descriptions were used (following Hodgson 1997 and Troels-Smith 1955), including Munsell colour, texture, structure and nature of boundaries.

6.3 Results: macrofossils

6.3.1 The flots (Appendix 3) were variable in volume and there were variable numbers of roots and modern seeds that may be indicative of stratigraphic movement and the possibility of contamination by later intrusive elements. The abundance and state of preservation of the environmental evidence were diverse across the site.

SMS1

6.3.2 Two samples (32 and 40) taken from SMS1 were not processed, as they derived from the secondary fills of an undated ditch.

SMS2

6.3.3 The samples from the two roundhouses in this area have provided some moderate to rich assemblages of charred plant remains dominated by cereal remains, mostly grains of spelt (*Triticum spelta*) but also including possible emmer (*T. dicoccum*) and barley (*Hordeum vulgare*). Chaff (glume bases) and husked grains were also recovered in a few assemblages. Seeds of wild plants were present in most of the assemblages, although in small quantities, and included taxa such as grasses (Poaceae) and branched bur-reed (*Sparganium erectum*).

SMS3

6.3.4 The sample assessed from this area was rich in waterlogged plant macroremains such as seeds and fruits of rushes (*Juncus* spp.), Characeae oospores, *Isotes* sp. megaspores, seeds of goosefoot (Chenopodiaceae), elderberry (*Sambucus* sp.), water-plantain (*Alisma* sp.), docks (Polygonaceae), the carrot family (Apiaceae), sedges (*Carex* sp., Cyperaceae), birch (*Betula* sp.), grasses (Poaceae) spikelets and leaves of indeterminate taxa. A small amount of wood charcoal was also present. Remains of invertebrates (insects, terrestrial and fresh-water molluscs) were present in moderate quantities.





SMS4

6.3.5 Rich assemblages of plant macrofossils preserved by waterlogging have been identified in the samples from this area. The taxa include rushes (*Juncus* spp.), hawkweed (*Hieracium* sp.), fresh-water algae (Characeae), water-plantain (*Alisma* sp.), goosefoot (Chenopodiaceae), docks (Polygonaceae), birch (*Betula* sp.), elder (*Sambucus* sp.), heather (*Erica* sp.), grasses (Poaceae), ferns (Lycopsidae), quillwort (*Isoetes* sp.), umbellifers (Apiaceae) and buttercups (*Ranunculus* sp.). Remains of invertebrates (insects, terrestrial and fresh-water molluscs) were present in moderate quantities.

SMS7 and trenches 61–62

6.3.6 Except for a small amount of wood charcoal, the plant remains recovered from the samples in this area were preserved by waterlogging. The remains included seeds of sea club-rush (*Bolboschoenus maritimus*), hawkweed (*Hieracium* sp.), docks (Polygonaceae), birch (*Betula* sp.), catchfly (*Silene* sp.), bulrush (*Typha* sp.), elderberry (*Sambucus* sp.), rushes (*Juncus* spp.), goosefoot (Chenopodiaceae), water-plantain (*Alisma* sp.), violet (*Viola* sp.), moss (*Sparganium* sp.) leaves and sporangium, algae (Characeae) oospores and leaves of indeterminate taxa. The invertebrate remains included a relatively abundant number of insects, together with smaller amounts of acari and ostracods.

SMS11 trench 28

6.3.7 No charred plant remains and very little wood charcoal were recovered in the samples from this area. Abundant vegetative plant material preserved by waterlogging was present. A small number of terrestrial molluscs was present in one of the samples.

SMS12

6.3.8 The four samples from ditches in this area have provided very poor assemblages of charred plant remains from wild plants such as grasses (of which false-oat grass tubers could be identified) and vetches (Vicieae) as well as uncharred (probably dried-out waterlogged) plant remains, including abundant seeds of rushes (*Juncus* sp.).

SMS13

Although this area was heavily sampled, generally small and poorly preserved 6.3.9 assemblages of charred plant remains were retrieved, with most of the assemblages being dominated by wood charcoal. Three moderately rich and a fourth very rich assemblage proved to be exceptions. One of the moderately rich assemblages included a few cereal remains of wheat but was dominated by of a diversity of wild plants (Sparganium erectum, Poaceae, Cyperaceae, Rubus sp., Caryophyllaceae, Ranunculus sp., Asteraceae, Brassicaceae, Chenopodium sp. and Juncus sp.). Another assemblage was composed of cereal (including spelt wheat and barley) grains and a series of other plants, some of which may have been cultivated, such as flax (*Linum* sp.) and wild ones, such as bedstraw (Galium sp.), docks (Rumex sp.), sedges (Cyperaceae), wild radish (Raphanus raphanistrum), and grasses (Poaceae). Another richer sample provided a monospecifc assemblage of probably common mallow (Malva tp. sylvestris). The richest assemblages in the area was dominated by the remains (seeds and capsules) of cultivated flax (Linum usitatissimum), but also comprised poorly preserved cereals, the mint family (Teucroideae subfamily) and sedges (Cyperaceae). The remainder of the samples provided none or a few remains of a series of taxa, comprising wild plants and cereals, which included wheat (Triticum sp.), occasionally identified to species level as spelt (*T. spelta*) in both grains and chaff, and barley (*Hordeum vulgare*). In addition, there was a particularly well-preserved grain of naked wheat that looked clearly intrusive. Small quantities of mollusc remains from terrestrial and fresh-water taxa were recovered in three of the samples.


SMS20

6.3.10 The sample from the cremation grave included remains such as wheat (*Triticum* cf. *spelta*) grains, false oat-grass (*Arrhenatherum elatius* ssp. *bulbosum*) tubers, and seeds from fumitory (*Fumaria* sp.), field madder (*Sherardia arvensis*), cornsalad (*Valerianella* sp.), the mustard family (Brassicaceae), composites (Asteraceae), docks (Polygonaceae), and trefoil/medick/clover (Trifolieae) and a moderate assemblage of charcoal.

SMS28

- 6.3.11 The assemblages from kilns and dumped deposits in ditches in this site area were very rich in both roundwood and mature wood fragments. Small amounts of poorly-preserved non-woody plant remains were generally recovered. Some of the samples also provided small numbers of remains of fresh-water molluscs.
- 6.3.12 By contrast, the assemblages from the crop-dryers and some ditches were extremely rich in charred plant remains, and were dominated by cereal grains. The cereals were mostly spelt wheat (Triticum spelta), but emmer (T. dicoccum), barley (Hordeum vulgare) and rye (Secale cereale) were also identified in small quantities. Chaff (glume bases) was occasionally identified, as well as whole spelt spikelets, and detached embryos and coleoptiles. Some of the grains were sprouted or had holes from phytophagous insects. Remains of other economic plants present in the assemblages included plum/cherry/sloe (Prunus sp.) kernels, apple/rowan (Malus/Sorbus) pips and flax (Linum usitatissimum) seeds and capsules. Seeds from wild plants, which may have been crop weeds, were present in quantities varying from moderate to rich. They included taxa such as wild radish (Raphanus raphanistrum), vetches (Vicieae), goosefoot (Chenopodiaceae), composites (Asteraceae), wild grasses (Poaceae among others such as Avena sp., Bromus sp., Briza sp., Poa/Phleum), docks (Polygonaceae), cornsalad (Valerianella sp.), violet (Viola sp.), rushes (Juncus sp.), buttercups (Ranunculus sp.), sedges (Cyperaceae), pinks (Caryophyllaceae) and corn-cockle (Agrostemma githago) and bur reed (Sparganium erectum) Tubers of false oat-grass (Arrhenatherum elatius subsp. bulbosum) were also present in some assemblages, Some remains of mature wood charcoal were also identified in some of these grain-rich assemblages.

SMS30 and trenches 40–44

6.3.13 Most of the samples from this area were sterile, but a few of them provided poor and moderate assemblages of charred plant remains, including cereals such as emmer/spelt wheat and barley, and other wild plant such as false oat-grass and other grasses, docks, goosefoot, violet and bur reed. All the samples in this area provided remains of terrestrial molluscs, very abundant in one of the samples.

Trench 3a

6.3.14 A small assemblage with barley grains, false oat-grass tubers and dock seeds was recovered. Remains of molluscs, mostly from terrestrial taxa but including some freshwater species, were also present in rich quantities.

Trench 75–78

6.3.15 Rich assemblages of waterlogged plant remains were recovered from trenches 75 and 78, dominated by taxa such as sedges (Cyperaceae), but also including birch (*Betula* sp.), alder (*Alnus* sp.), brambles (*Rubus* sp.), gypsywort (*Lycopus europaeus*), buttercups (*Ranunculus* sp.), water-milfoil (*Myriophyllum* sp.) and plum/cherry/sloe (*Prunus* sp.). Invertebrate remains (insects segments and eggs) were present in the samples.



St Catherine's Well SMS/WB

- Although there is a high proportion of bioturbation (roots and uncharred seeds) affecting 6.3.16 most of the samples from this site area, several rich and consistent charred assemblages have been retrieved. Many of the remains are heavily iron coated indicating fluctuating water table conditions, but otherwise are well preserved. The taxa include cereals (Triticeae) such as hulled barley of the dense-rowed variety (Hordeum vulgare subsp. vulgare var. hexastichum) and hulled wheat, either emmer or spelt (Triticum dicoccum/spelta), other economic plants such as elder (Sambucus sp.) and sloe (Prunus spinose) stone, and seeds and roots from a variety of wild plants of grassland and wet environments, some of which might have been intentionally exploited, such as speedwell (Veronica sp.), grasses (Poaceae, including Poa/Phleum, Avena/Bromus, Lolium/Festuca), bur reed (Sparganium erectum), docks (Rumex sp., Polygonum sp.), buttercups (Ranunculus sp.), cinquefoil (Potentilla sp.), bedstraw (Galium sp.), rushes (Juncus sp.), sedges (Cyperaceae), poppy (Papaver sp.) and false oat-grass (Arrhenatherum elatius ssp. bulbosum) tubers.
- 6.3.17 Waterlogged assemblages in this area are representative of the local vegetation, similar to other areas of the site, with wetland plants and plants from disturbed nutrient-rich habitats (Chenopodiaceae, Caryophyllaceae, *Ranunculus* sp., Apiaceae, Lamiaceae, *Carex* sp., *Juncus* sp., Polygonaceae, *Alisma* sp.) in addition to hedgerow or wooded areas (*Sambucus* sp., *Betula* sp.). Four waterlogged assemblages are exceptionally rich and dominated by the remains of flax capsules (and possible stems) and pale persicaria (*Persicaria lapathifolia*) seeds.
- 6.3.18 The samples also included the remains of invertebrates (terrestrial and fresh-water mollusc, and insects.

Bridleway WB

6.3.19 Only one of the two samples from this area provided any environmental evidence. It consisted on a small and poorly preserved assemblage of charred plant remains including cereals (Triticeae), among which barley (*Hordeum vulgare*) could be identified, and seeds of wild plants such as grasses (Poaceae, including *Bromus* sp.), docks (*Rumex* sp.) and cornsalad (*Valerianella* sp.). A small number of terrestrial molluscs was present in the sample.

6.4 Results: sediments

6.4.1 The sediments recorded in the monolith samples are summarised below, with a detailed sediment description presented in Appendix 4.

St Catherine's well

6.4.2 Monolith sample 7 taken from palaeochannel 1161 in the St Catherine's Well Stream strip, map and sample excavation area, shows fluctuations in water levels overlain by a period of more intense decomposition of vegetational infill from the surrounding area.

Trench 78

6.4.3 Monolith sample 582 was taken from a palaeochannel in the east of the site and shows the infilling of a natural channel with alluvial silt. The channel was then filled with a mixture of organics and silts, indicating seasonal deposition from the surrounding vegetation/surface.



7 STATEMENT OF POTENTIAL

7.1 Summary

- 7.1.1 The archaeological investigations undertaken as part of the Rossington Inland Port development have encountered remains chiefly of prehistoric and Romano-British date, with evidence from the latter period predominating. The archaeological features and deposits were found widely dispersed across the relatively large (125 ha) site, and include: two enigmatic post-built enclosures with a potential funerary function near St Catherine's Well Stream; elements of an extensive system of enclosures, fields and trackways (examined in SMS1, 3–12 and 14–27, and around St Catherine's Well Stream); cremated human remains (SMS area 20); and evidence of settlement and industrial activity (SMS2, 13 and 28, and again around St Catherine's Well Stream (flax retting).
- 7.1.2 The project has therefore been successful in exposing a prehistoric–Romano-British landscape. The examined deposits and features have provided complementary, and at times relatively rich, suites of data. Within the artefactual assemblage, the Romano-British pottery and animal bone have the greatest research potential; within the palaeoenvironmental remains, the waterlogged assemblages (particularly those related to flax processing) and some of the charred remains, hold the highest potential to understand the nature of the ancient environment and its economic exploitation in the past. The recorded site stratigraphy and datable artefacts cast light onto the development of the landscape over time, and potentially, changes in the ancient environment related to its human exploitation.
- 7.1.3 The excavated data has potential to contribute to research concerning the chronological development of field systems, how these articulated with compounds used for settlement and other activities, and, more broadly, the nature of the environment and its exploitation in the centuries either side of the Roman conquest. Furthermore, the excavation methodology permits the detailed understanding of the distribution of finds and environmental remains across the various SMS areas, potentially casting light on the existence of different functional zones within the areas of settlement activity.
- 7.1.4 In recent years, archaeological fieldwork in this part of South Yorkshire has produced material data relevant to regional and national research questions. The value of the remains encountered during the current development is therefore augmented by the emerging picture of the former exploitation of this landscape gained from earlier and ongoing work in the area. Notable works include: a previous phase of the Rossington Inland Port development (Powell *et al.* forthcoming); fieldwork near Rossington Colliery (Roberts and Weston 2016) and the Great Yorkshire Way road development (Wessex Archaeology 2017b; Daniel in prep.); and investigations associated with housing developments around Bessacar (MAP forthcoming).
- 7.1.5 With regard to the current site, although the overall landscape context of the remains is of crucial importance, further analysis will most profitably focus on certain locales. Areas 2, 13, 20 and 28, and the St Catherine's Well Strip, map and sample area are of the highest significance and warrant further analysis and more detailed publication. No further work is warranted on SMS areas 1, 3–12 and 14–27 other than inclusion of the results in an archive report.

7.2 Stratigraphic potential

7.2.1 The archaeological sequence exposed within the strip, map and sample areas was relatively simple: the majority of deposits were sealed by ploughsoil or subsoil deposits



and were cut in to the geological substrate. There was very little evidence for stratification of deposits with only a few instances of intercutting identified.

7.2.2 The stratigraphic sequence of the archaeological remains is, therefore, sufficiently well understood and further stratigraphic analysis will not enhance the understanding of activity within the strip, map and sample areas.

7.3 Finds potential

Introduction

7.3.1 Only pottery and animal bone are represented here in any significant quantity, and these categories therefore offer the most potential.

Pottery

7.3.2 The pottery assemblage is an interesting addition to the growing number of Roman pottery assemblages from the Doncaster area, and covers most of the Roman period (continuing probably no later than the early 4th century AD), with some possibility of activity on the site prior to the Roman conquest. Little Iron Age pottery has so far been identified in South Yorkshire, but a small but growing number of assemblages of this date from the Doncaster area have been recognised amongst recent excavations. After the conquest, the assemblage shows the expected range of ware types for the area, including many products of the local production sites around Doncaster. A detailed pottery archive has already been prepared, in line with national guidelines, and no further analysis is proposed, but some aspects of the assemblage warrant some limited and targeted further investigation, and a small number of vessels have been selected for further study. Some refinement of the dating for specific key ditch groups (eg. CG62) may be possible, and more detailed comparison of this assemblage with other rural groups from the area will help to place the assemblage in a local context. The possibility of any further examples of structured or zoned deposition on the Site should be investigated.

Animal bone

- 7.3.3 From the animal bone, the Romano-British assemblage offers the most potential for more detailed analysis: it includes a reasonable number of identified bones, many of which can provide information relating to age, biometry and butchery. There are also several discrete dumps of cattle bones within some of the enclosure ditches that would benefit from more detailed study.
- 7.3.4 The animal bones from the Late Iron Age to early Romano-British roundhouses in SMS2 also merit further analysis to determine if there is any spatial patterning that could be related to different activities connected with the preparation and consumption of meat joints.

Other finds

7.3.5 Other categories of finds provide limited evidence for the nature of Late Iron Age and Romano-British occupation (largely in SMS areas 13 and 28): structural (ceramic building material, fired clay) and functional/economic (quernstones, whetstone, iron chisel/punch). A single lead spindlewhorl indicates textile working, but was a topsoil find and is therefore of uncertain date. There are very few personal items (brooches and hair pins), and all six Roman coins were found unstratified. There is minimal evidence for metalworking (and this is almost certainly redeposited). The small amount of prehistoric flintwork is also redeposited.



Human bone

7.3.6 Full analysis of the bone may provide more detailed demographic data regarding age and sex. Further details relating to the observed pathology may also be forthcoming. Securing a more robust date for the deposit will allow the remains to be placed in the correct temporal context, and following further consideration of the deposit type, enhance our understanding of the place of mortuary deposits within the rural landscape of the region. Romano-British mortuary deposits, comprising singletons or small dispersed grave groups, are a relatively common feature in settings, often located close to or within field boundaries, potentially 'marking' liminal areas associated with individual farmsteads.

7.4 Environmental potential

7.4.1 Significant evidence of palaeoenvironmental and economic interest has been recovered from several areas of the site and originating from different types of proxies. Some of the waterlogged and charred plant assemblages have the potential to provide information on the nature of the settlement, the local environment, local agricultural practices and crop husbandry techniques, in some cases could provide information on past human activities relevant far beyond the regional level. Some of the wood charcoal assemblages would provide information on the exploitation and management of the local woodland and species selection for industrial activities. The palaeoenvironmental evidence in the monolith samples has the potential to provide information about landscape and environmental change.

Environmental potential: Macrofossils

7.4.2 Several of the charred plant remain assemblages are economically significant, particularly those from crop-dryers and kilns in area SMS28, but also SMS2, SMS13, SMS20, SMS30 and St Catherine's Well and are recommended for further analysis. The majority of the assemblages of plant macrofossils preserved by waterlogging are very similar to each other and represent the taxa growing in the local environment: a wetland of open vegetation with permanent bodies of water, with the addition of wind dispersed seeds such as birch, which might have travelled further distances. These assemblages from bulk samples have little potential of informing about landscape changes. Equally, the invertebrate evidence (molluscs and insects) are likely to confirm what is already known from the plant macrofossils with far less detail and are therefore unlikely to add significantly to the information from the plant macrofossils. However, some of the waterlogged plant remain assemblages have economic potential and do merit further work.

SMS1

7.4.3 No further work is proposed on the samples from this area.

SMS2

7.4.4 The assemblages recovered in the two roundhouses in this area are consistent with an Iron Age/Romano British chronology and probably represent by-products of the last stages of crop processing, although they could also be related to animal foddering. A selection of the samples, two from each roundhouse, is recommended for analysis, including radiocarbon dating.

SMS3

7.4.5 No further work is proposed on the samples from this area, as they probably represent the surrounding vegetation and have no economic potential.



SMS4

7.4.6 The assemblages of plant macrofossils are of natural origin and therefore do not merit further analysis.

SMS7 and trenches 61–62

7.4.7 The assemblage of plant macrofossils represents the local vegetation growing in the near environment of the ditches. No further work is proposed on samples from this area.

SMS11 trench 28

7.4.8 No further work is proposed on samples from this area.

SMS12

7.4.9 The assemblages from this site area probably represent the surrounding vegetation and have no economic potential, thus further work is not recommended on these samples.

SMS13

7.4.10 Most of the samples from this area do not require further work, with the exception of three samples that have provided moderately rich assemblages. These have potential to contribute to the understanding of local agricultural and plant exploitation practices in the Iron Age and Romano-British periods. Further analysis is therefore proposed for these samples, including direct radiocarbon dating.

SMS20

7.4.11 The assemblage of charred plant remains from the cremation grave sample in this area is suggestive crop-processing activities, whose by-products were possibly used as fuel, or were residual from previous activities. Analysis of this assemblage is proposed to obtain a better understanding of its significance, provided both it and the human remains are directly radiocarbon dated, so that the integrity of the deposit and the chronological relationship between the two events (funerary rite and plant use) can be understood.

SMS28

- 7.4.12 Most of the assemblages are consistent with the functional interpretations suggested during the excavation, with kilns and related rake-out deposits dumped in ditches being rich in wood charcoal with very poorly preserved non/woody plant remains. This is consistent with a fire activity with high temperatures, such as pottery making or metal working. Analysis of the charcoal from these assemblages is recommended, in order to assess the existence of fuel selection for different combustion activities.
- 7.4.13 The assemblages from the crop-dryer related deposits, retrieved either within the cropdryers or as dumped deposits in nearby ditches, were dominated by cereal remains and possibly associated weeds, and a small amount of wood charcoal. These assemblages are consistent with crop processing activities, and at least two probable sources are suggested, which further analysis would help to clarify. On the one hand, the assemblages could correspond to grain product accidentally charred during the drying process. On the other hand, they could represent the fuel used in the crop-drying process, possibly incorporating a mixture of wood and crop processing by-products. Some of the cereal grains are sprouted and abundant detached coleoptiles (sprouts) have been found, a result which could be either accidental or intentional. A detailed analysis of the sprouted assemblages might reveal further details, including whether malting was carried out on the site. Due to the richness and species diversity of some of these assemblages, a characterisation of agricultural practices and plant exploitation activities on site may be achieved if further analysis is undertaken.



7.4.14 Therefore, most of these assemblages have the potential for the analysis of agricultural practices (charred plant remains) and fire activities (wood charcoal) on site. They also have the potential to provide short-lived entities for radiocarbon dating should this be required to clarify the chronology of the features and activities.

SMS30 and trenches 40–44

7.4.15 Although most of the samples from this area were sterile, there was a particularly interesting assemblage in which the presence of *Sparganium erectum*—a wild plant whose edible roots were potentially used—was abundant; this assemblage merits further analysis to characterise plant exploitation activities on site.

Trench 3a

7.4.16 The small assemblage of charred plant remains from a ditch in this trench does not have much potential for further analysis.

Trenches 75–8

7.4.17 These assemblages are typical of natural accumulation and serve to broadly characterise the immediate environment but no further work is required on them.

St Catherine's Well SMS/WB

- 7.4.18 This area has produced extremely interesting plant remains assemblages, both preserved by waterlogging and by carbonisation, providing a unique opportunity to approach plant exploitation activities from complementary proxies. As such, further work is recommended on the samples from this particular area. Firstly, all processed samples should be assessed, particularly from the posthole and enclosure groups, since the assessment of some of these has produced some rich assemblages that could provide essential information for the understanding of these features. Secondly, analysis of several of the charred and waterlogged assemblages is recommended, provided radiocarbon dating is also undertaken, since they could provide important information about agriculture and plant exploitation activities. The number of assemblages to be analysed from this area could be increased after the reassessment of the environmental evidence with the newly processed samples.
- 7.4.19 Although some of the charred plant remain assemblages from this area are significant and can provide information about local agricultural practices and processing activities, the most significant archaeobotanical evidence is gathered in the assemblages preserved by waterlogging. Some of these simply represent the local vegetation naturally accumulated, but others are the remains of exploitation of the plant resources and have no equivalent in charred assemblages on site, nor on other deposits of the same taxa across the country. These are the large almost pure assemblages of flax capsules (with a few contaminants of docks and wetland plants) recovered from a ditch terminus, associated with remains of broken fibres (flax?) might indicate the use of the ditch as a flax retting structure (Hall and Huntley 2007). Medieval remains and structures related to this activity are very rare, but not unknown (Andresen & Karg, 2011, Robinson 2003). However, should this feature prove to be Iron Age in date (a plausible notion considering its form in plan and the absence of Romano-British pottery from within it, despite the widespread occurrence of such material on the site), it may be the earliest recorded example in the British Isles. A similarly large assemblage of pale persicaria (which has edible seeds) also has no known parallel in the archaeobotanical literature for the region or even the whole country. Further work on both of these assemblages is strongly recommended, since they can provide clues for the understanding of plant exploitation practices and manufacturing activities usually invisible in the archaeological record. Due to their significance and because these



are unique for the period, radiocarbon dating is required to verify the integrity and chronology of the assemblage.

Bridleway WB

7.4.20 No further work is proposed on these samples.

Environmental potential: sediments

- 7.4.21 Although the monolith descriptions do not significantly enhance the interpretation of the site, the sediment preservation is such that the potential for pollen and dating evidence is high within the peat units. Therefore, subsampling for pollen is recommended to enhance the environmental and landscape record. Subsampling for radiocarbon dating is recommended to provide or supplement chronological data already gathered from artefacts and feature analysis.
- 7.4.22 Subsampling from monolith sample 7 is highly recommended, especially given the proximity of significant archaeological features (groups 1080 and 1127). In order to complement the artefactual and structural evidence, whilst enhancing the environmental data, it is proposed that subsampling take the following course: pollen three subsamples from the top, middle and bottom of the first unit (corresponding with context 1014); radiocarbon dating one subsample from the first unit (1014).
- 7.4.23 Trench 78 and the surrounding area contained no archaeological features. However, the monolith sample from that palaeochannel contains over a metre of peat and would yield environmental material, which should be analysed with the purpose to provide data on the surrounding environment and vegetation change. With this in mind, subsampling for pollen at a 16 cm interval is recommended (eight subsamples in total). Two subsamples for radiocarbon dating (from the top and bottom of the first unit corresponding with context (7802) should be taken also.

7.5 Recommendations

Summary of recommendations for analysis

- *Landscape context*: Utilisation of GIS and LiDAR to enhance understanding of links between topography and archaeological remains;
- *Pottery*: further study of selected vessels; enhancement of samian catalogue; *graffiti* report; amphora study, summary of post-Romano-British wares;
- Animal bone: brief publication report;
- *Metalwork*: conservation/investigative cleaning as appropriate; specialist identification of coins; illustration of pins and brooches etc;
- *Crucible*: archaeometallurgical identification of residues;
- *Human bone*: analysis and publication reporting;
- *Environmental*: full analysis of some assemblages; palynological study;
- *Radiocarbon dating*: thirteen samples to date landscape/environmental developments, funerary activity and domestic plant processing activities; Bayesian analysis as appropriate;



- *Documentary*: updated SMR search; literature review
- *Publication*: production of article for regional journal (YAJ).
- 7.5.1 SMS areas 2, 13, 20 and 28, along with the St Catherine's Well Stream area, represent the remains of prehistoric activity and Romano-British settlement and industry within an extended landscape of contemporary fields and enclosures.
- 7.5.2 Further work is required in order to fully understand the nature of the occupation and activity in these areas and to understand how the settlement/industrial areas relate, in terms of chronology and function, to the development of the field system.
- 7.5.3 It is necessary to consider the results against the emergent picture of the wider ancient landscape in order to set them within their appropriate local and regional context. Recommendations for such work are presented below.

Landscape context

- 7.5.4 Further analysis will re-consider the cropmark and geophysical survey data across the development in light of dating and phase evidence derived from the excavation areas, with use of a GIS package. This may allow for the consideration of the areas of settlement and industry within the context of the wider agricultural landscape, and allow more details of its development over time to be discerned.
- 7.5.5 It is proposed that further analysis of the excavation areas will include digital terrain modelling in order to identify the topography of the local landscape and determine whether elevation was a factor in dictating spatial and temporal activity. This may lead to an understanding of the economic exploitation of the low-lying, marginal land within the development area.

Pottery

- 7.5.6 The existing samian report will be enhanced in order to place this small assemblage in its local and regional context.
- 7.5.7 From the Late Iron Age/Roman assemblage, 99 vessels have been selected for further study. This includes further research on the possible amphora sherd from context 5258, to see if it can be attributed to a production source. The two possible vessels with graffiti and a batch mark will be photographed and sent to Dr Roger Tomlin (University of Oxford) for study, identification and a short report contribution. These vessels should also be photographed for the report. The crucible will be submitted for archaeometallurgical analysis to identify the residues. The form will be discussed and placed in a local and regional context. Some of the key ditch groups will be considered more closely, with the intention of establishing if they may have been open from the early Roman period onwards. The possibility of any further examples of structured or zoned deposition on the site will be investigated.
- 7.5.8 The sherds identified as post-Roman by this assessment will be submitted to an appropriate local post-Roman pottery specialist to record the pottery by fabric, provide a more accurate date and to place the small assemblage in its regional context.
- 7.5.9 The information presented in this report, augmented with the limited further research outlined above, and informed by further stratigraphic analysis, will be adapted into a publication report, which will present the range of wares and vessel forms, and will incorporate further comparison with other rural groups from the area in order to place the



assemblage in a local and regional context. The report will be supported by tabulated data, and illustration of up to 65 vessels from the 99 selected for further study.

Animal bone

7.5.10 It is recommended that the information quantified in Table 15 is recorded to provide a complete archive of the assemblage, and that a brief publication report is prepared to accompany the results of the fieldwork. The report will summarise the results of the analysis, and discuss and interpret the assemblage within a wider regional context. Age, biometric and butchery data will be recorded following established methods and guidelines (Baker and Worley 2014).

Conservation

- 7.5.11 The iron 'collar' from SMS13 has already undergone some conservation treatment (removal of soil, stable packaging). On the basis of the X-rays, and a scan of the metal objects concerned, a further selection of nine objects has been made for further conservation treatment, involving investigative cleaning (see Table 17).
- 7.5.12 Some metal objects (eg, nails) may be targeted for selective retention (see below), and objects retained will be appropriately packaged in stable storage (airtight plastic tubs with drying agent) for long-term curation.

Material	Ођј Туре	Obj No	Action	Time
Copper alloy	Coin	4	Remove soil	3 hr
Copper alloy	Coin	5	Remove soil	4 hr
Copper alloy	Coin	7	Remove soil	3 hr
Copper alloy	Coin	8	Remove soil	4 hr
Copper alloy	Coin	13	Remove soil	2 hr
Copper alloy	Coin	23	Remove soil	3 hr
			Consolidation of all coins	1 hr
Copper alloy	Brooch	11	Remove soil	7 hr
Copper alloy	Brooch	15	Remove soil	5 hr
Iron	?Chisel		Airbrade to remove soil and corrosion products	7 hr
Textile/copper alloy	Fragment of clothing with metal buttons	24	Clean; consolidate; dry in freezer	11 hr

Table 17 Objects selected for conservation treatment

Metalwork

7.5.13 Following conservation work, the Roman coins will be submitted for specialist identification and comment. Parallels will be sought for the pins and brooches, and the catalogue entries for these objects enhanced accordingly. A short report will be prepared on these objects and other identifiable metal objects of Late Iron Age/Romano-British date (iron tool, 'collar'). The pins, brooches, and a maximum of two iron objects will be illustrated.

Other finds

7.5.14 No other finds warrant further analysis or illustration. The information presented in this report can be adapted for incorporation in the publication report.



Human bone

- 7.5.15 Analysis of the cremated bone will follow the writer's customary procedures (McKinley 1994, 5–6; 2004). The unsorted <4mm residues will be subject to a rapid scan at this stage to extract any identifiable material, osseous or artefactual.
- 7.5.16 Taphonomic factors potentially affecting bone preservation will be assessed. The age of individual will be refined using standard methodologies (Beek 1983; Buikstra and Ubelaker 1994; Scheuer and Black 2000). It is unlikely that it will be possible to assess the sex of the individual (Bass 1987; Buikstra and Ubelaker 1994; Gejvall 1981). Pathological lesions will be recorded in text and via digital photography.
- 7.5.17 The form and nature of the deposit will be further considered in light of the osteological and other finds data together with the context data. Aspects of pyre technology and the cremation mortuary rite will be discussed in their temporal, regional and, where appropriate, national context.
- 7.5.18 It is recommended a sample of bone be submitted for radiocarbon analysis.

Environmental

- 7.5.19 The palaeoenvironmental evidence from several areas of the site (SMS2, SMS13, SMS20, SMS28, SMS30 and St Catherine's Well) will be fully analysed following standard procedures of quantification and taphonomical analysis. The results of this analysis will be compared with data from other sites in the local area, and beyond. It is hoped that sufficient data will exist to allow a detailed understanding of past landuse and economic activity, and how this may have differed across the various excavation areas. The samples proposed for plant macrofossil analysis and charcoal analysis are indicated with a 'P' and a 'C' in the analysis column in Appendix 3.
- 7.5.20 The recommended subsamples for pollen and radiocarbon dating on the monolith samples are listed in Appendix 4.

Radiocarbon dating

- 7.5.21 Thirteen radiocarbon dates have been proposed (see Table 18 below). Where applicable, results will be modelled using OxCal and adopting guidance and best practice from the Historic England Scientific Dating Team.
- 7.5.22 Samples were selected in conjunction with the named project specialists (Jackie McKinley and Inés López-Dóriga) and the majority will focus on evidence of settlement and industry.

Sample	Context	Feature	Group, Area	Material	Rationale
114502_58	3063	3062	3020, SMS2	Plant macroremain	Age of domestic plant-processing activities
114502_60	3026	3018	3021, SMS2	Plant macroremain	Age of domestic plant-processing activities
114502_559	2244	2245	SMS13	Plant	Age of domestic plant-processing

Table 18	Radiocarbon dating sample provenance summary	v
	radiocarbon dating bampic provenance bammary	y

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				macroremain	activities
114502_589	2710	2711	SMS20	Wood charcoal	Age of funerary activity (double check)
114502_589	2710	2711	SMS20	Cremated bone	Age of funerary activity
114502_619	5131	5129	SMS28	Wood charcoal	Age of feature use
114500_7	1014 (top)	-	St Catherine's Well	Bulk peat	Age of peat deposit
114500_18	1124	1123	1080, St Catherine's Well	Plant macroremain	Age of feature use and plant- processing activities
114500_52	1156	1048	1080, St Catherine's Well	Plant macroremain	Age of feature use and plant- processing activities
114500_47, 114500_33 or 114500_31	1148 1146 1138	1149 1147 1139	1127, St Catherine's Well	Plant macroremain	Age of feature use
114502_704	2942	2943	Ring ditch 72, St Catherine's Well	Plant macroremain	Age of domestic plant-processing
114502_582	7802 (bottom)	-	Trench 78	Bulk peat	Age of start of peat deposit
114502_582	7802 (top)	-	Trench 78	Bulk peat	Age of end of peat deposit

Documentary records

- 7.5.23 An updated Sites and Monuments Record search will be carried out in order to clarify the local context of the excavated remains, and to gather information on any other recent archaeological investigations in the vicinity.
- 7.5.24 A literature review will also be carried out in order to better understand the site in its local, regional and national context. The following local and regional sources have been identified, but more may be added during the literature review:
 - Allen, M, Lodwick, L, Brindle, T, Fulford, M and Smith, A 2017 *The Rural Economy of Roman Britain.* Britannia Monograph Series 30. London, the Society for the Promotion of Roman Studies
 - Chadwick, A M 2010 Fields for Discourse: Landscape and Materialities of Being in South and West Yorkshire and Nottinghamshire during the Iron Age and Romano-

British Periods. A Study of People and Place, Unpublished PhD thesis University of Wales

- Garton, D 2008 The Romano-British Landscapes of the Sherwood Sandstone of Nottinghamshire: Fieldwalking the Brickwork Plan Field Systems, *Trans Thoroton Soc* 112, 15–110
- Grassam, A 2010 *Excavations on land between Field Lane and Doncaster Road, South Elmsall*, ASWYAS Rep 2030, unpublished
- Haselgrove, C 2007 The age of enclosure, in C Haselgrove and T Moore (eds), 492–522
- Hingley, R 1989 Rural Settlement in Roman England
- Holbrey, R and Burgess, A., 2001 Parlington Hollins, in Roberts et al. (eds), 83– 105
- Howell, J K 2001 Swillington Common, in Roberts et al. (eds), 47–68
- Knight, D 2007 From Open to Enclosed: Iron Age landscapes of the Trent Valley, in C Haselgroveand T Moore (eds), 190–218
- Martin, L 2005 The Iron Age and Romano-British Enclosures, in Roberts (ed.), 89– 124
- Martin, L Richardson, J. and Roberts, I., 2013 Iron Age and Roman Settlements at Wattle Syke. Leeds, Archaeological Services WYAS
- Neal. P G E and Fraser, R 2004 A Romano-British Enclosed Farmstead at Billingley Drive, Thurnscoe, South Yorkshire, *Yorkshire Archaeol. J.* 76, 7–92
- O'Neill, R and Raybould, O 2007 Final report of archaeological excavation at Holme Hall Quarry, near Stainton, Doncaster, South Yorkshire. Unpubl ARCUS rep ref 121d.2(1)
- Riley, D N 1980 Early Landscape from the Air. Studies of Crop Marks in South Yorkshire and North Nottinghamshire
- Roberts, I (ed.), 2005 Ferrybridge Henge. The Ritual Landscape, Yorkshire Archaeol. 10
- Roberts, I 2009 A Late Iron Age and Romano-British Settlement at High Wold, Bempton Lane, Bridlington, East Yorkshire, *Yorkshire Archaeol. J.* 81, 47–138
- Roberts, I with Deegan, A and Berg, D 2010 Understanding the Cropmark Landscapes of the Magnesian Limestone
- Roberts, I and Richardson, J 2002 Iron Age and Romano-British Settlement Excavations at Moss Carr Wood, Methley, West Yorkshire, ASWYAS Publ 2



- Smith, A, Allen, M, Brindle, T and Fulford, M 2016 *The Rural Settlement of Roman Britain. Britannia Monograph Series 29,* the Society for the Promotion of Roman Studies, London
- Stoertz, C 1997 Ancient Landscapes of the Yorkshire Wolds. Swindon, RCHME
- Roberts, I and Weston, P 2016 Excavations at Rossington Grange Farm, South Yorkshire, *Yorkshire Archaeol J* 88, 1–37

8 UPDATED PROJECT DESIGN

8.1 Reappraisal of the project objectives

- 1.1.2 The general aims and objectives of the project as set out in the WSIs (CgMs 2016; Wessex Archaeology 2017c) were:
 - To record, as far as is reasonably possible, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains observed;
 - To establish the ecofactual and environmental potential of archaeological deposits and features encountered.
 - To provide sufficient information to enable an informed decision to be made about the need for additional archaeological mitigation;
 - To make available the results of the work.
- 1.1.3 The general products and tasks to be completed/undertaken included:
 - Providing further information on the archaeological potential of the site to enable the archaeological implications of the proposed development to be assessed;
 - Inform the formulation of a strategy to avoid or mitigate impacts of the proposed development on surviving archaeological remains;
 - Produce a site archive.

8.2 Updated project aims

- 8.2.1 Draft documents outlining the significance and potential of the Iron Age and Roman archaeology of South Yorkshire have recently been prepared as part of the South Yorkshire Archaeological Research Framework (Chadwick 2018; Ottaway 2018). Although never formally adopted, similar material was prepared for Yorkshire as a whole across all time periods (Roskams and Whyman 2005 and 2007). Other frameworks have identified research priorities for specific chronological periods at the national level (eg, English Heritage 2010 and 2012). The documents listed above have been used to update the project aims in light of the archaeological and palaeoenvironmental datasets encountered.
- 8.2.2 The remains within SMS areas 2, 13 and 28, and the St Catherine's Well area, have the potential to address the following research objectives:

- What were the economic, social or political roles of linear ditch systems? (Chadwick 2018, 31);
- What may we deduce from studies of linear boundaries with respect to changes in the agrarian landscape? (Chadwick 2018, 31);
- How may agricultural changes have impacted upon settlement patterns? Can the relationship between sedentary and mobile economies be clarified, and how did this vary spatially and over time? (Chadwick 2018, 31);
- How may diet and land-use have varied over time and between different ecological zones? (Chadwick 2018, 31);
- What were the reasons for variations in the form, shape, and size of field systems and fields? Were functional or social factors (or both) important? (Chadwick 2018, 31);
- Can we determine the extent and nature of pastoral or arable regimes? Were some enclosures and fields inhabited or utilised year-round, and others seasonally or even more episodically? (Chadwick 2018, 31);
- What was the nature of land tenure and/or ownership during the Iron Age and Romano-British periods? (Chadwick 2018, 31);
- Can any spatial patterning be identified within roundhouses in South Yorkshire? If so, did these correspond to different functional areas? Can patterns of internal human and/or animal movement be detected? (Chadwick 2018, 40);
- What was the purpose or purposes of these [small subcircular and subrectangular enclosures] features? (Chadwick 2018, 45);
- Can we identify potential sites and area of metalworking production more effectively? (Chadwick 2018, 49);
- Where have the Iron Age and earliest Roman metal artefacts been found in South Yorkshire? Is there any evidence that these might have reflected pre-conquest contacts? Are there any patterns in landscape associations for deposition? What roles did wet and other 'natural' locations perform regarding structured deposition, and how might these have changed over time? (Chadwick 2018, 50);
- How did individuals and communities identify and define themselves in South Yorkshire during the Iron Age and early Romano-British periods? Did metalwork play a role in this, and can any possible social groupings be identified? Can we identify any status differences between Iron Age and Romano-British individuals and settlements? How were such variations manifested? Is there any evidence for such groupings persisting into the Romano-British period? (Chadwick 2018, 50);
- How can we add to our existing knowledge of industries and crafts in this region, particularly pottery manufacture? (Chadwick 2018, 53);
- How can we refine further the ceramic chronology for the first millennium BC, and better understand the production, exchange and deposition of ceramic artefacts in South Yorkshire? Does pottery represent the occasional movement of goods within

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ceramic containers, or is it evidence of the movement of people (either permanently or temporarily) from areas with radically different traditions of material culture use? (Chadwick 2018, 53);

- Although pottery styles may be indicators of identity, South Yorkshire had varied sources of ceramic production and exchange during the Iron Age, including sources outside of the region. How does this equate with classic (clichéd?) culture-history notions of the *Brigantes* as an identifiable tribal entity? Might this indicate a more complex situation? (Chadwick 2018, 53);
- Can any differences in function, status and/or identity be discerned from the pottery assemblages found on rural settlements? Are there any ceramic indications of sustained or seasonal/part-time occupation? (Chadwick 2018, 54);
- How long did it take for locally produced handmade vessels to be superseded by Roman-style wares, and in what social and stratigraphic contexts did 'native' style wares persist? (Chadwick 2018, 55);
- How can we better understand the exchange and deposition of quernstones? (Chadwick 2018, 57);
- What is the nature of structured deposits in this region and may sub-regional patterns or trends be discerned? (Chadwick 2018, 65);
- Can we develop criteria to assess depositional practices on Iron Age and Romano-British sites, and to try and identify placed deposits in particular? (Chadwick 2018, 65);
- How can we identify evidence for IA funerary traditions? Why were only some people buried during the Iron Age, and who were these individuals? (Chadwick 2018, 72);
- Can we chart more closely the processes of woodland clearance and agricultural intensification, their impact upon alluviation and colluviation, and variations between different areas? (Chadwick 2018, 77);
- Was there intensification or extensification of arable production during the later Iron Age and early Roman period? (Chadwick 2018, 81);
- Can any archaeological, geoarchaeological, or archaeozoological evidence be found for practices such as stalling animals in pens and buildings, or keeping animals within infields? (Chadwick 2018, 85);
- Can any correlations in the deposition of animal burials and Associated Bone Groups or ABGs be found with similar contexts or with other objects such as artefacts? Can we discern some social or ideological aspects of how particular animals were regarded in the past? (Chadwick 2018, 85);
- What was the relationship between forts and their immediate landscape? (Chadwick 2018, 92);

- In what circumstances (geographical, environmental etc) are field systems in the county likely to have their origins in the Roman period (as opposed to the Iron Age)? (Ottaway 2018, 9);
- Where the Roman systems are successive to, or contiguous with, those of the Iron Age, how do they interrelate? (Ottaway 2018, 9);
- Discuss the evidence for the apparent abandonment of field systems in the late 2nd to 3rd century (Ottaway 2018, 10);
- Was spelt wheat dominant in the Romano-British arable economy and what other crops were grown? Do cereals, accompanying weed seeds and other crop-related debris provide information on methods of husbandry? Are patterns in the data related to environmental conditions in the county? (Ottaway 2018, 11);
- What does the distribution of crop driers and querns reveal about crop husbandry? (Ottaway 2018, 11);
- What was the balance between rearing of the three main meat-yielding species: cattle, sheep/goats and pig? Did this change over time? Do they suggest dairying or keeping of sheep for milk and wool rather than meat? (Ottaway 2018, 11);
- Was the establishment of the fort a Doncaster the stimulus for the beginning of pottery production? (Ottaway 2018, 11);
- What was the the size of the distribution zone of Romano-Britsh pottery from the Doncaster kilns? (Ottaway 2018, 12);
- How were existing (pre-Roman) pottery supply networks affected by the Roman military regime? (Ottaway 2018, 13);
- Can we identify anything like a monetised economic system at any time or in any part of the county during the Roman period? (Ottaway 2018, 14);
- To what extent, and in what way, was deliberate deposition of material culture used to serve cult purposes and what may those purposes have been? (Ottaway 2018, 14);
- To relate burial practices to landscape development (Roskams and Whyman 2007, 5);
- To explain Roman-period site histories in relation to any Iron Age precursors (English Heritage 2012, 14);
- To better understand the landscape context of known sites and to recognise regional diversity within Roman-period landscapes (English Heritage 2012, 14; 2010, 12-3);
- To enhance knowledge of rural Romano-British settlements and landscapes through further analysis and publication (Roskams and Whyman 2005, 67);
- To elucidate the rural contexts in which the more well-known Roman *foci* of fort, town and villa subsisted and developed (or failed to develop) in order to understand

the relationship between settlement development and production of agricultural surplus (Roskams and Whyman 2007, 31-2);

- To investigate possible evidence for Romanisation in a rural context through further analysis and publication (Roskams and Whyman 2007, 31);
- To better understand human interactions with the environment (English Heritage 2010, 15; 2012, 16).
- 8.2.3 With regard to the pottery, the assemblage may be able to contribute to the established specialist framework, particularly with regard to:
 - understanding Roman and native interaction; the continuation of Iron Age pottery traditions through the Roman period; marketing mechanisms and supply, and differing patterns of consumption at rural sites in different parts of the north of Britain (Willis 2002).
- 8.2.4 It is possible that the results of the proposed South Yorkshire archaeological resource assessment and research framework (Dan Miles pers. comm.) will become available during the remaining lifespan of the project. If so, the publication will endeavour to be cognizant of its findings, if possible within the limitations of the analysis-phase programme.

8.3 **Proposals for publication**

- 8.3.1 In light of the volume and significance of the remains, the publication of an overview article is proposed. This will present a summary and synthesis of the results and discuss the site in its regional context. The proposed article will be submitted for publication in the Yorkshire Archaeological Journal, and will be supported by a dedicated, open access, 'project page' containing full specialist reports and databases. This will be hosted on the Wessex Archaeology and/or ADS website.
- 8.3.2 The published article will be about 13,300 words long and, with plates, tables and figures, occupy perhaps 25 pages of the journal (assuming maximum 700 words per page).

Provisional synopsis of the publication

Working title: The people on the moor: prehistoric and Roman remains near Rossington, South Yorkshire. By Patrick Daniel with principal specialist contributions from Ian M Rowlandson, Lorrain Higbee and Inés López-Dóriga

Introduction	500 words
Results	2000 words
Finds and environmental reports	7000 words
Discussion	2000 words
Bibliography	1800 words

Total: approximately 13,300 words, 10 figures, 5 plates, 2 tables

8.3.3 In fulfilment of a requirement from SYAS, a full interpretative, structural and stratigraphic history of the site, in the form of a detailed archive report summarising the excavated contexts and including a full description of the artefactual and environmental data, will also



be produced. This will resemble what is traditionally referred to within the context of archaeological publication as a 'Level III' report (Frere 1975).

8.4 Personnel and resources

8.4.1 The following Wessex Archaeology core staff are scheduled to undertake the work as outlined in the task list for post-excavation analysis and publication (Table 19).

Task no.	Task description	Days	Staff				
1. Management and support							
1.1	Project management	2	A Norton				
1.2	Project monitor and QA	1	A Norton				
1.3	Finds management	3	J Irwin				
2. Pre-analysis	2. Pre-analysis						
2.1	Check phasing and grouping, update site database	2	РО				
2.2	Digitisation of selected drawings	1	IA				
2.3	Project meetings	2	Var.				
2.4	HER search/literature review	5	PO				
3 Analysis and	l specialist reporting						
3.1 Finds							
3.1.1	Pottery report plus illustration	6	I Rowlandson/TBC				
3.1.2	Update samian catalogue	1	G. Monteil				
3.1.3	Graffiti report	0.5	R. Tomlin				
3.1.4	Amphora report	0.5	ТВС				
3.1.5	Post-Roman pottery recording	0.5	Jane Young				
3.1.6	Animal bone analysis	12	L Higbee				
3.1.7	Roman coins	1	R Henry				
3.1.8	Archaeometallurgy (crucible)	1	R Mackenzie				
3.1.9	Metalwork	3	E Brook				
3.1.10	Other finds: summary text	2	E Brook				
3.1.11	Illustrations: finds	9	ТВС				
3.1.12	Conservation	6 1	L Wootten Wilts Cons Centre				
3.2 Environmental							
3.2.1	Extraction of charred plants and wood charcoal (62 samples)	15	ES				
3.2.2	Commissioning analysis and contracts	0.5	SPO				
3.2.3	Analysis and reporting of charred plant remains (19 samples)	10	SPO				
3.2.4	Analysis and reporting of wood charcoal (44 samples)		Ext.				

 Table 19
 Task list for post-excavation analysis and publication

Task no.	Task description	Days	Staff
3.2.5	Subsampling from monolith (11 samples)	0.5	ES
3.2.6	Pollen extraction	n.=12	Ext. (Quest)
3.2.7	Analysis and reporting of pollen samples	14	Tech Spec
3.2.8	Environmental illustration requirements	0.5	PO
3.2.9	Radiocarbon dating (inc. admin time)	n.=13	EXT & SPO
3.2.10	Overview and palaeo-environmental summary	2	SPO
3.2.11	Management, monitoring, editing text	1	SPO
4. Report com	pilation (journal article)		
4.1	Introduction and background	1.5	PO
4.2	Compile and integrate report	3	PO
4.3	Discussion	3	PO
4.4	Bibliography	2	PO
4.5	Captions (figures, plates and tables)	1	PO
4.6	Brief finds and figure illustrations	0.5	PO
4.7	Illustrations	5	PO
4.8	Edit report	3	PO
4.9	Review report	2	PO
4.1	Check proofs	1	PO
4.11	Journal publication cost	ТВС	PO
5. Archiving			<u>.</u>
5.1	Museum liaison; finalise finds retention policy	0.5	J Irwin
5.2	Implement and document finds retention policy	0.5	J Irwin
5.3	Archive preparation and deposition (physical)	3	J Irwin
5.4	Archive preparation and deposition (digital)	5	J Irwin
5.5	Archive deposition charge (physical)	ТВС	EXT
5.6	Archive deposition charge (digital)	TBC	ADS

8.5 Management structure

- 8.5.1 Wessex Archaeology operates a project management system. The team will be headed by a post-excavation manager who will assume ultimate responsibility for the implementation and execution of the project specification as outlined in the Updated Project Design, and the achievement of performance targets, be they academic, budgetary, or scheduled.
- 8.5.2 The post-excavation manager may delegate specific aspects of the project to other key staff, who will both supervise others and have a direct input into the compilation of the report. They may also undertake direct liaison with external consultants and specialists who are contributing to the publication report, and the museum named as the recipient of



the project archive. The post-excavation manager will have a major input into how the publication report is written. They will define and control the scope and form of the post-excavation programme.

8.5.3 The post-excavation manager will be assisted by the analysis and reporting team leader, who will help to ensure that the report meets internal quality standards as defined in Wessex Archaeology's guidelines.

9 STORAGE AND CURATION

9.1 Museum

9.1.1 The archive resulting from the excavation is currently held at the offices of Wessex Archaeology in Sheffield. It is recommended that the project archive resulting from the excavation be deposited with Doncaster Museum Service, although that organisation is not currently accepting archives. Should the opportunity arise, the archive will be deposited under an accession number to be agreed. Deposition of any finds with the museum will only be carried out with the full written agreement of the landowner to transfer title of all finds to the museum.

9.2 **Preparation of the archive**

Physical archive

- 9.2.1 The complete physical site archive, which will include paper records, graphics, artefacts and ecofacts, will be prepared following the standard conditions for the acceptance of excavated archaeological material by the Roman Baths Museum, and in general following nationally recommended guidelines (SMA 1995; Brown 2011; ClfA 2014b).
- 9.2.2 The physical archive currently comprises the following:
 - 30 cardboard boxes or airtight plastic boxes of artefacts and ecofacts, ordered by material type
 - *c*. 20 files/document cases of paper records and A3/A4 graphics

Digital archive

9.2.3 The digital archive generated by the project, which will include born-digital data (survey data, databases and spreadsheets, photographs and reports) as well as selected digitised data, will be deposited with the Archaeology Data Service (ADS) to ensure its long-term curation. Digital data will be prepared following ADS guidelines (ADS 2013 and online guidance), and accompanied by full metadata.

9.3 Selection policy

- 9.3.1 Wessex Archaeology follows the guidelines set out in *Selection, Retention and Dispersal of Archaeological Collections* (Society of Museum Archaeologists 1993), which allows for the discard of selected artefact and ecofact categories, which are not considered to warrant any future analysis. The selection policy, and any discard of artefacts, will be fully documented in the project archive.
- 9.3.2 The discard of environmental remains and samples follows nationally recommended guidelines (SMA 1993; 1995; English Heritage 2011).



- 9.3.3 In this instance, given the size and significance of the pottery and animal bone assemblages, retention *in toto* is recommended. Other material types could be targeted for selective retention. The following selection strategy is therefore proposed:
 - *Pottery:* retain all (large and significant assemblage with further research potential)
 - Animal bone: retain all (large and significant assemblage with further research potential)
 - *Ceramic Building Material:* retain none (insignificant quantities, in poor condition, all probably redeposited; no further potential)
 - *Fired Clay:* retain selected pieces (more diagnostic) as sample from crop drying kiln 65; discard remainder (no further potential)
 - *Worked Flint:* retain all (small assemblage, but of likely Mesolithic/Early Neolithic date; further research potential)
 - *Stone:* retain all objects (querns, whetstone, etc; further research potential); discard unworked stone (possible building material, burnt pieces, unutilised pebbles; no further potential)
 - *Glass:* retain all; only four pieces, none clearly chronologically distinctive, but possibly Roman (possible further research potential)
 - *Amber:* retain the two beads (very poor condition, but of significance for rarity value)
 - *Slag:* retain none (insignificant quantities, only some of it related to metalworking, all probably redeposited; no further research potential)
 - *Coins:* retain Roman issues only (further research potential)
 - Other metalwork: retain all non-ferrous objects (further research potential); retain identifiable iron objects other than nails (further research potential); discard remainder

9.4 Security copy

9.4.1 In line with current best practice (eg, Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

9.5 OASIS

9.5.1 An OASIS online record (http://oasis.ac.uk/pages/wiki/Main) has been initiated, and key fields completed on Details, Location and Creators Forms. All appropriate parts of the OASIS online form will be completed for submission, and will include an uploaded .pdf version of the final report. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service ArchSearch catalogue.

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REFERENCES

- ADS 2013 Caring for Digital Data in Archaeology: a guide to good practice. Archaeology Data Service and Digital Antiquity Guides to Good Practice
- Andresen, S and Karg S 2011 Retting pits for textile fibre plants at Danish prehistoric sites dated between 800 and 1050, *Vegetation History and Archaeobotany* 20, 517–526
- Annable, F K, 1960 *The Romano-British Pottery at Cantley Housing Estate*, Doncaster Museum Publication 24
- Archaeological Services WYAS, 2008a Balby Carr: Zone D2, Phase 1, Doncaster, South Yorkshire, unpubl rep 1769
- Archaeological Services WYAS, 2008b Balby Carr, Doncaster, Archaeological Investigation, unpubl rep 1772
- Baker P and Worley F 2014 Animal Bones and Archaeology: guidelines for best practice. Historic England
- Bartlett, J E and Riley, D N, 1958 The Roman Fort at Scaftworth near Bawtry, *Trans Thoroton Soc* 62, 24–35
- Bass, W M 1987 Human Osteology Missouri Arch Soc.
- Bayley, J and Butcher, S 2004 *Roman Brooches in Britain: a Technological and Typological Study* based on the Richborough Collection. Report of the Research Committee of the Society of Antiquaries of London, 68
- Beek, G C van 1983 Dental Morphology: an illustrated guide, Bristol: Wright PSG
- Birss, R S, 1985 Coarse Pottery, in J Dool, H Wheeler, H, et alia, Roman Derby: Excavations 1968–1983, *Derbyshire Archaeol J* 105, 90–124 and 259–67
- Brassington, M, 1971 A Trajanic kiln complex near Little Chester, Derby, Antiq J 51, 36-69
- British Geological Survey online viewer <u>http://mapapps.bgs.ac.uk/geologyofbritain/home.html</u> (accessed November 2017)
- Brown, D H 2011 Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation (revised edition). Archaeological Archives Forum
- Buckland, P C and Dolby, M J, 1980 A Roman pottery kiln site at Blaxton Quarry, Auckley, near Doncaster. Doncaster Museum Monogr 4 (1)
- Buckland, P C and Magilton, J R, 1986 *The Archaeology of Doncaster 1: The Roman Civil* Settlement, Oxford: Brit Archaeol Rep 148
- Buckland, P C and Magilton, J R, 2005 Late Roman pottery kilns at Goodison Boulevard, Cantley, Doncaster: excavations by JR Lidster in 1957 and 1962, *J Roman Pottery Studies* 12, 36– 53
- Buckland, P C, Hartley, K F and Rigby, V, 2001 The Roman Pottery Kilns at Rossington Bridge Excavations 1956-1961, *J Roman Pottery Studies* 9, Oxbow, Oxford



- Buikstra, J E and Ubelaker, D H 1994 *Standards for data collection from human skeletal remains* Arkansas Archaeological Survey Research Series 44
- Castle, S A, 1972 Excavations at Brockley Hill 1970, *Trans London Mddlx Archaeol Soc* 23 (2), 148–51
- CgMs 2009 Archaeological Desk Based Assessment. Land west of Rossington, South Yorkshire
- CgMs 2016 Rossington Inland Port Phase 2, Doncaster, South Yorkshire. Written Scheme of Investigation
- Chadwick, A M 2010 Fields for Discourse: Landscape and Materialities of Being in South and West Yorkshire and Nottinghamshire during the Iron Age and Romano-British Periods. A Study of People and Place, Unpublished PhD thesis University of Wales
- Chadwick, A M 2018 South Yorkshire Archaeology Service Research Framework: The Iron Age and Earlier Romano-British Periods. Unpublished draft
- CIfA 2014a Standard and guidance for archaeological excavation. Reading, Chartered Institute for Archaeologists
- CIfA 2014b Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives. Reading, Chartered Institute for Archaeologists
- Cool, H E M 1998 Personal ornaments other than brooches, in H E M Cool and C Philo (eds) *Roman Castleford: Excavations 1974–85. Volume I: The Small Finds*, 57–61. Wakefield, West Yorkshire Archaeology Service
- Coppack, G, 1973, The excavation of a Roman and medieval site at Flaxengate, Lincoln, *Lincolnshire Hist Archaeol* 8, 73–114
- Cregeen, S M, 1957 The Romano-British excavations at Cantley Estate, Doncaster. The pottery from kilns 9-25, *Yorks Archaeol J* 39, 364–88
- Cumberpatch, C G, 1993 Excavations at Pickburn Leys, Adwick-le-Street, Doncaster (SE 534 067), in C G Cumberpatch and M J Francis (eds), *Archaeology in South Yorkshire 1992-1993*, South Yorkshire Archaeological Service
- Cumberpatch, C G, 2000 Pottery from excavations at Redhouse Farm, Adwick-le-Street, Doncaster, South Yorkshire, unpubl rep for Northamptonshire Archaeology
- Cumberpatch, C G, 2002, An assessment of the Iron Age and Roman pottery from Redhouse Farm, Doncaster South Yorkshire, unpubl rep
- Cumberpatch, C G, 2007 Later prehistoric pottery from Balby Carr, Doncaster (BCA04): An Assessment, unpubl rep for Archaeol Serv (WYAS)
- Cumberpatch, C G, 2008 Pottery, in M Muldoweney and J Richardson, Balby Carr: Zone D2, Phase 1, Doncaster, South Yorkshire Archaeological Excavation, Services WYAS Rep 1769
- Cumberpatch, C 2016 Pottery, in Wessex Archaeology *Firstpoint, Balby Carr, Doncaster, South Yorkshire. Strip, Map and Sample Excavation: Final Report.* Unpubl. rep. ref. 105400.02, 9-13 & fig. 30



- Daniel, P 2016 An Iron Age Enclosure at Balby Carr, Doncaster, South Yorkshire, in *Forum: The Journal of Council for British Archaeology Yorkshire* 5, 1-11
- Daniel, P. in prep 'The Great Yorkshire Way': Iron Age and Romano-British activity near Rossington, South Yorkshire, *Yorkshire Archaeol J*
- Darling, M J, 1977 A group of late Roman pottery from Lincoln, The archaeology of Lincoln, 16/1
- Darling, M J, 1999 Roman Pottery, in C Colyer, B J J Gilmour and M J Jones, *The Defences of the Lower City. Excavations at The Park and West Parade 1970-2*, York: Counc Brit Archaeol Res Rep 114, 52–135
- Darling, M J, 2004a Guidelines for the archiving of Roman Pottery, *J Roman Pottery Studies* 11, 67–74
- Darling, M J, 2004b Report 171 on pottery from excavations at Raymoth Lane, Worksop, Nottinghamshire, RLW04, unpubl rep for Pre-Construct Archaeology
- Darling, M J and Precious, B J, 2014 *Corpus of Roman Pottery from Lincoln*, Oxford: Lincoln Archaeol Studies 6, Oxbow Books
- Elsdon, S M, 1996 Iron Age Pottery, in J May, *Dragonby, Report on Excavations at an Iron Age* and Romano-British Settlement in North Lincolnshire, Oxford: Oxbow Monogr 61, 317– 512
- English Heritage 2010 English Heritage Thematic Research Strategies: research strategy for prehistory: consultation draft. Swindon, English Heritage
- English Heritage 2011 Environmental Archaeology: a guide to theory and practice of methods, from sampling and recovery to post-excavation. Swindon, Centre for Archaeology Guidelines
- English Heritage 2012 English Heritage Thematic Research Strategies: research strategy for the Roman-period historic environment. Swindon, English Heritage
- Evans, J, 2001 Roman Pottery, in I Roberts, A Burgess and D Berg (eds) A New Link to the Past. The Archaeological Landscape of the M1-A1 Link Road. Leeds: Yorkshire Archaeology 7, West Yorkshire Archaeology Service
- Evans, J, 2004 Roman Pottery, in A Burgess and I Roberts, *Two Late Iron Age/Romano-British Settlement Sites near Whitwood, West Yorkshire*, Wakefield: Archaeological Services (WYAS) Publications 6, West Yorkshire Archaeology Service
- Field F N and Palmer-Brown, C P H, 1991 New evidence for a Romano-British greyware pottery industry in the Trent Valley, *Lincolnshire Hist Archaeol.* 26, 40–56
- Frere, S S 1975 Principles of Publication in Rescue Archaeology: Report by a Working Party of the Ancient Monuments Board for England. London, Committee for Rescue Archaeology
- Gillam, J P, 1970 *Types of Coarse Roman Pottery Vessels Found in Northern Britain*, University of Newcastle upon Tyne (3rd ed)



- Greep, S 1998 The Bone, Antler and Ivory Artefacts, in H E M Cool and C Philo (eds) *Roman Castleford: Excavations 1974–85. Volume I: The Small Finds*, 267–85. Wakefield, West Yorkshire Archaeology Service
- Hall, A R and Huntley, J P 2007 A review of the evidence for macrofossil plant remains from archaeological deposits in Northern England. English Heritage Res Dept Rep Ser 87
- Hamilton, D, Cook, G and Bronk Ramsey, C 2007 Dating in R Van de Noort, H P Chapman and J R Collis *Sutton Common: the excavation of an Iron Age 'marsh-fort*', 156. York, CBA Research Rep 154
- Hinton, P (ed), 1988 Excavations in Southwark 1973-76 Lambeth 1973-79, London Mddx Archaeol Soc
- Hodgson, J M 1997 *Soil Survey Field Handbook*. Soil Survey Technical Monograph No. 5. Harpenden
- Headland Archaeology 2016 Rossington Inland Port Phase 2B, Rossington, South Yorkshire. Geophysical Survey, unpublished report RIPD/01
- Gejvall, N G 1981 Determination of burned bones from prehistoric graves: Observations on the cremated bones from the graves at Horn, OSSA Letters: 2
- Holden, J L, Phakley, P P and Clement, J G 1995a Scanning electron microscope observations of incinerated human femoral bone: a case study, *Forensic Science International* 74, 17–28
- Holden, J L, Phakley, P P and Clement, J G 1995b Scanning electron microscope observations of heat-treated human bone. *Forensic Science International* 74, 29–45
- Knight, D and Howard, A J 2004 *Trent Valley Landscapes*. King's Lynn, Heritage Marketing and Publications
- Leary, R S, 2010a Romano-British Pottery from Parrots Corner and York Road, in M C Bishop, *Glimpses of a Roman Hinterland: Excavations on the A638 QBC at York Road and Parrots Corner, Doncaster, South Yorkshire*, Northern Archaeological Associates rep 10/104
- Leary, R S, 2010b Romano-British Pottery, in I McIntyre and D Berg, *Cudworth and West Green Bypass, Archaeological Evaluation and Excavation*, unpubl Archaeological Services WYAS rep 2032
- Leary, R S, with Evans, J, Hartley, K and Ward, M, 2008 The Iron Age and Romano-British pottery in J Richardson, *The Late Iron Age and Romano-British Rural Landscape of Gunhills, Armthorpe, South Yorkshire*, Leeds: Archaeological Services WYAS Publications 10
- Martin-Kilcher, S, 1987 Die römischen amphoren aus Augst und Kaiseraugst. Ein Beitrag zur römischen Handels und Kulturgeschichte. 1: Die südhispanischen Ölamphoren, Augst: Forschungen in Augst 7
- McKinley, J I 1994 The Anglo-Saxon cemetery at Spong Hill, North Elmham Part VIII: The Cremations. East Anglian Archaeology No. 69.



- McKinley, J I 2013 Cremation: excavation, analysis, and interpretation of material from cremationrelated contexts in S Tarlow and L Nilsson Stutz (eds) *The Oxford Handbook of the Archaeology of Death and Burial*, 147-171. Oxford University Press
- McKinley, J I and Roberts C 1993 *Excavation and post-excavation treatment of cremated and inhumed human remains*. Reading, CIfA Technical Paper 13
- Monaghan, J, 1997 *Roman Pottery from York*, The Archaeology of York The Pottery 16/8, Counc Brit Archaeol
- Monteil, G, 2013 Samian ware from Rossington Bridge, unpubl West Yorkshire Archaeology Service rep
- Monteil, G, 2016a Samian ware from Holme Hall Quarry, Maltby, unpubl rep for Archaeological Research Services Ltd
- Monteil, G, 2016b Samian ware from the site of the former Belle Vue Football Ground, Doncaster, unpubl rep
- Oswald, F, 1936–37 Index of figure-types on terra sigillata, Liverpool: Annals Archaeol Anthropol, 23–4
- Ottaway, P 2018 Research Framework for South Yorkshire's Historic Environment: The Roman Period. Unpublished draft
- Peňa, J T, 2007 Roman Pottery in the Archaeological Record, Cambridge: Cambridge Univ Press
- Petch, D F, 1962 Excavations at Lincoln, 1955–58, Archaeol J 117, 40–70
- Powell, A B, Daniel, P and Harrison, C in prep. A Romano-British enclosure near Rossington, South Yorkshire, Yorkshire Archaeological Journal
- Rigby, V, 1998, Where did Cen, Reditas and Sace produce pots? A summary of the range and distribution of Romano-British stamped wares, in J Bird (ed), *Form and Fabric: Studies in Rome's material past in honour of B.R. Hartley*, Oxford: Oxbow Monogr 80, 191–7
- Rigby, V and Stead, I M, 1976 Coarse pottery, in I MStead, *Excavations at Winterton Roman Villa* and other Roman sites in North LincoInshire, 1958–1967, 136–90
- Roberts, I 2010 Understanding the Cropmark Landscapes of the Magnesian Limestone. Leeds, Archaeological Services WYAS
- Roberts, I and Weston, P 2016 Excavations at Rossington Grange Farm, South Yorkshire, Yorkshire Archaeol J 88, 1–37
- Robinson, M 2003 Saxon flax retting in river channels and the apparent lack of water pollution, in P Murphy and P E J Wiltshire (eds) The Environmental Archaeology of Industry, Oxford, Oxbow, 141–142
- Rogers, G-B, 1974 *Poteries sigillées de la Gaule centrale, I, les motifs non figurés.* Paris : Supplément 28, Gallia



- Roskams, S and Whyman, M 2005 Yorkshire Archaeological Research Framework: resource assessment. A report prepared for the Yorkshire Archaeological Research Framework Forum and for English Heritage - project number 2936 RFRA. Unpublished
- Roskams, S and Whyman, M 2007 Yorkshire Archaeological Research Framework: research agenda. A report prepared for the Yorkshire Archaeological Research Framework Forum and for English Heritage - project number 2936 RFRA. Unpublished
- Rowlandson, I M, 2013a The Romano-British pottery, in J Richardson, Hatfield Lane, Doncaster, South Yorkshire, unpubl ASWYAS Rep 2546
- Rowlandson, I M, with Hartley K F, 2013b The Later Prehistoric and Romano-British Pottery, in I Roberts and P Weston, *Rossington Colliery, South Yorkshire*, ASWYAS unpubl rep
- Rowlandson, I M, 2014 An assessment of the Roman pottery, in C Harrison, Finningley and Rossington Regeneration Route Scheme, Doncaster, South Yorkshire, unpubl Wessex Archaeology Rep 84452.01
- Rowlandson, I M, 2015 The Romano-British pottery, in P Weston, Hatfield Lane, Doncaster, South Yorkshire: Archaeological Excavation, unpubl Archaeological Services WYAS rep 2706, 12–29
- Rowlandson, I M, 2016a A report on the Roman pottery from the Finningley and Rossington Regeneration Route Scheme, Doncaster, South Yorkshire (84451), unpubl rep for Wessex Archaeology
- Rowlandson, I M, 2016b An assessment of the Prehistoric and other Roman pottery from an archaeological excavation at Flass Lane, Castleford, West Yorkshire (Site code FLA16, SE47391 23531), unpubl rep for Archaeological Services WYAS
- Rowlandson, I M, 2018 An assessment of the pottery from Highfield Farm, Derbyshire (115470), unpubl rep for Wessex Archaeology
- Rush, P, Dickinson, B, Hartley, B and Hartley, K F, 2000 *Roman Castleford Excavations 1974–85 Vol III The pottery*, Exeter: Yorkshire Archaeology 6, Short Run Press
- Scheuer, L and Black, S 2000 Developmental Juvenile Osteology. London, Academic Press
- SMA 1993 Selection, Retention and Dispersal of Archaeological Collections. Society of Museum Archaeologists
- SMA 1995 Towards an Accessible Archaeological Archive. Society of Museum Archaeologists
- Stace, C 1997 New flora of the British Isles (2nd edition). Cambridge, Cambridge University Press
- Stanfield, J A, and Simpson, G, 1990 Les potiers de la Gaule Centrale, Revue archéologique SITES, Hors-Série, 37, Recherches sur les ateliers de potiers de la Gaule Centrale, Tome V. Lezoux
- Steiner, B L; Antolín, F, Vach, W and Jacomet, S 2017 Subsampling of large-volume samples in waterlogged sediments A time-saving strategy or a source of error? *Review of Palaeobotany and Palynology* 245, 10–27



- Symonds, R P 1999 Recording Roman pottery: a description of the methodology used at Museum of London Specialist Services (MoLSS) and Museum of London Archaeology Service (MoLAS), unpublished guide
- Tomber, R and Dore, J, 1998 *The National Roman Fabric Reference Collection: a handbook*, London. Museum of London Archaeology Service Handbook 2
- Troels-Smith J, 1955 Karakterisering af lose jordarter Characterization of unconsolidated sediments, *Geological Survey of Denmark* IV Series 3 (10), 39–73
- Van de Noort, R 2007 The mortuary rings in R Van de Noort, H P Chapman and J R Collis, 151-165
- Van de Noort, R, Chapman, H P and Collis, J R, 2007 *Sutton Common: The Excavation of an Iron Age 'Marsh Fort'*. York, Counc Brit Archaeol Res Rep 154
- Ward, M, 2008 The Samian Ware from area A, in J Richardson, *The Late Iron Age and Romano-British Rural Landscape of Gunhills, Armthorpe, South Yorkshire*, Archaeological Services WYAS Publ 10
- Webster, P, 1996 *Roman Samian Pottery in Britain*, York: Counc Brit Archaeol Practical Handbook in Archaeology 13
- Wessex Archaeology 2016a Rossington Inland Port Borrow Pit 2, South Yorkshire: Archaeological Watching Brief. Unpubl rep ref 84759.01
- Wessex Archaeology 2017a Rossington Inland Port Phase 2 Doncaster, South Yorkshire Summary Archaeological Evaluation Report. Unpubl rep ref 114501.03
- Wessex Archaeology 2017b Finningley and Rossington Regeneration Route Scheme (FARRRS) Doncaster, South Yorkshire Archaeological Archive Report. Unpubl rep ref 84457.03
- Wessex Archaeology 2017c Rossington Inland Port Phase 2 Doncaster, South Yorkshire Written Scheme of Investigation for Archaeological Works. Unpubl rep ref. 114501.01
- Willis, S (ed) 2002 Study Group for Roman Pottery: National Research Framework Document
- Willis, S H, 2005 Samian pottery, a resource for the study of Roman Britain and beyond: The results of the English Heritage funded Samian Project. *Internet Archaeology* 17. http://intarch.ac.uk/journal/issue17/willis_toc.html
- Wilson, P R, 2002 Caractonium: Roman Catterick and its Hinterland Excavations and research 1958–1997, York: Counc Brit Archaeol Res Rep 129
- Zohary, D, and Hopf, M, 2000 Domestication of plants in the Old World: the origin and spread of cultivated plants in West Asia, Europe, and the Nile Valley, 3rd edition. Clarendon Press, Oxford

APPENDICES

Appendix 1: pottery fabric summary

Τ

Fabric code	Fabric group	Fabric details	NRFC (Tomber and Dore 1998)	Fabric description
SAMCG	Samian	Central Gaulish	LEZ SA 2	-
SAMLG	Samian	La Graufesenque samian ware	LGF SA	-
SAMRZ	Samian	Rheinzabern samian ware	RHZ SA	-
SAMTR	Samian	Trier samian (Trier I and Trier II)	TRI SA	-
AMPH?	Amphora	Miscellaneous amphorae	-	-
DR20	Amphora	Dr 20 amphorae	BAT AM 2	-
GAU	Amphora	Undifferentiated Gaulish amphorae	GAL AM 1	Gaulish amphora Darling and Precious 2014
MOCA	Mortaria	Cantley mortaria	CAN WS	-
MOMD	Mortaria	Midlands mortaria; precise source unknown	-	-
MOMH2	Mortaria	Mancetter-Hartshill mortaria: Meta sediment trits; Leicester fabric MO4	MAH WH	Mancetter-Hartshill mortaria with mudrock/fired clay trituration grits
MORB	Mortarium	Rossington Bridge (Buckland et al 2001)	-	Buckland <i>et al.</i> 2001, mortarium fabric 1).
MOVR	Mortaria	Verulamium region mortaria	VER WH	
GFIN	Fine	Miscellaneous fine grey wares	-	Darling and Precious 2014
PART	Fine	Parisian type wares	-	Darling and Precious 2014
RPART	Fine	Rossington Bridge Parisian wares	ROS FR	-
СС	Fine	Other colour-coated wares	-	Darling and Precious 2014
CC1	Fine	Colour coated fabric 1	-	Light-fired core and darker colour-coated fabric from Nene Valley or Lincoln broadly as LNV CC or SOC CC (Tomber and Dore 1998)
SYOXCC	Fine	South Yorkshire oxidised self-slipped ware	-	A self-slipped orange colour-coated version of the local oxidised fabric (Leary 2008a, fabric OAB1CC; Buckland and Magilton 2005, 43 and 48).

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Fabric code	Fabric group	Fabric details	NRFC (Tomber and Dore 1998)	Fabric description
CR	Oxidised	Roman cream wares (various)	-	Darling and Precious 2014
CR?	Oxidised	Roman cream wares	-	Darling and Precious 2014
DBY	Oxidised	Derbyshire ware	DER CO	-
ох	Oxidised	Misc. oxidized wares	-	-
OX?	Oxidised	Misc. oxidised wares	-	-
OX1	Oxidised	Oxidised fabric 1	-	South Yorkshire Oxidised ware with inclusions as discussed by Buckland and Mailton (2005) and Leary (2008a, OAB1).
OX8	Oxidised	Oxidised fabric 8	-	A reduced mid orange wheel-made grey ware with, including common poorly sorted sub-rounded quartz (0.2–0.7mm), rare black ?ferrous rich inclusions (0.2–0.5mm), and rare fine silver mica. The source of these vessels is uncertain but a 'Trentside' source from Lincolnshire (e.g. Field and Palmer-Brown 1991) or Nottinghamshire is possible. similar to GREY8.
OXC1	Oxidised	Coarse oxidised: Site fabric 1	-	A coarse oxidised ware predominantly mid-orange with some vessels with patchy reduced grey surfaces. Fairly hard 'bumpy' surfaced fabric with common sub-rounded quartz 0.2-1mm and rare quartz and polycrystalline quartz rock 1-11mm, sparse red-brown inclusion (0.2-0.8mm). A similar fabric is described from Armthorpe and other sites in South Yorkshire by Leary (2008, OAC1). This fabric is either 'Pre-Derbyshire ware' (Brassington 1971) or a local attempt to produce a similar fabric (Buckland et al. 2001, 69).
OXFIN	Oxidised	Fine Oxidised fabric	-	Darling and Precious 2014
OXL	Oxidised	Light oxidised fabrics	-	Light-fired pink/ pale orange fabrics possibly from Lincoln
OXWS	Oxidised	Oxidized with white slip		Oxidised with white slip. As OX1 with a white slip, given the production of white slipped mortaria at Rossington and Cantley a local source for this fabric is likely.
BB1	Reduced	Black burnished 1	DOR BB 1	-
BB2?	Reduced	Black burnished 2	-	Darling and Precious 2014



Fabric code	Fabric group	Fabric details	NRFC (Tomber and Dore 1998)	Fabric description
GBB1	Reduced	Grey Black Burnished ware 1 types	-	Grey Black Burnished ware; a variant on the local RBB1 fabric fired to a grey colour, similar to the GREY1 fabric but handmade (Leary 2008a, GBB1; Buckland et al. 2001, 47– 9).
GREY	Reduced	Miscellaneous grey wares	-	-
GREY?	Reduced	Miscellaneous grey wares	-	-
GREY1	Reduced	Reduced fabric 1	-	South Yorkshire grey ware with common to abundant sand c.0.3–0.5mm (Buckland and Magilton 2005; 43, Leary 2008a, GRB1).
GREY2	Reduced	Reduced fabric 2	-	A dark grey to black reduced wheel-made fabric, occasionally with paler grey cores and oxidised margins. The inclusions are the same as GREY1 but with most examples containing common quartz, although a few vessels have only sparse quartz between 0.3–0.5mm. This grey ware fabric variant is common amongst earlier groups in Doncaster. The range of forms includes the rusticated jars found on this site (Buckland and Magilton 1986, e.g. fig. 35.84) and stamped platters (Gillam 1970, types 301 and 337; Buckland 1986, fig. 12.8–9). It has suggested that these vessels were manufactured from the Flavian period at or near Doncaster (Buckland et al. 1980, 146–7; Rigby 1998, 192).
GREY3	Reduced	Reduced fabric 3	-	A small number of sherds with common quartz sand 0.3–0.5mm, but over fired to the point of vitrification. Surfaces are rougher than GREY1 and the sherds appear similar to Derbyshire ware, only with smaller common quartz inclusions. This fabric could be a misfired version of GREY1.
GREY8	Reduced	Reduced fabric 8	-	A reduced mid grey wheel-made grey ware with, including common poorly sorted sub- rounded quartz (0.2–0.7mm), rare black ?ferrous rich inclusions (0.2–0.5mm), and rare fine silver mica. The source of these vessels is uncertain but a 'Trentside' source from Lincolnshire (e.g. Field and Palmer-Brown 1991) or Nottinghamshire is possible
GREYB	Reduced	High fired late Roman grey wares	-	Variant on the Late Roman East Midland burnished ware style
GREYC	Reduced	Coarse Grey ware	-	-
GREYC1	Reduced	Coarse Grey ware: site fabric 1	-	A coarse grey ware almost exclusively used for large storage jars. Mid-grey with abundant quartz (0.3–0.5mm) with some grains up to 1mm, sparse black ferrous rich inclusions (0.3–0.5mm), and sparse mud rock/grog (0.5–5mm).



Fabric code	Fabric group	Fabric details	NRFC (Tomber and Dore 1998)	Fabric description
GROG	Reduced	Grog-tempered wares	-	Darling and Precious 2014
GROG1	Reduced	Grog-tempered wares: Site fabric 1	-	A pimply dark surfaced fabric with a paler core. Some vessels are wheel-finished. Inclusions are moderate grog/mudrock (0.5–5mm), moderate sub-rounded and rounded quartz (0.3–7mm), sparse ferrous-rich grains (0.3–0.5mm) and sparse fine silver mica.
GROG2	Reduced	Grog-tempered wares: Site fabric 2	-	Mid-grey fabric, in which some vessels are wheel-finished, with moderate grog (0.5– 3mm), sparse rounded quartz (0.2–0.3mm) and ferrous inclusions (0.2–0.3mm).
IAGR	Reduced	Native tradition/transitional grit-tempered wares	-	Darling and Precious 2014
IAGR?	Reduced	Native tradition/transitional grit-tempered wares	-	Darling and Precious 2014
IAGR1	Reduced	Iron Age tradition 'Gritty': Site fabric 1	-	A hard handmade or wheel-finished dark grey fabric with moderate grog or mudrock (0.3–2mm), sparse ferrous inclusions 0.3–1mm, rare rounded quartz (0.3mm) and rare rounded calcareous inclusions (0.2–0.3mm).
IAGR2	Reduced	Iron Age tradition 'Gritty': Site fabric 2	-	A handmade or wheel finished 'pimply' fabric with surface colours varying from dark grey to dull orange: moderate fossil shell (0.5–5mm), moderate quartz (0.2–0.5mm) and moderate to sparse grog or mudrock.
IAGR3	Reduced	Iron Age tradition 'Gritty': Site fabric 3	-	A hard handmade or wheel finished fabric with patch pale orange or dark grey surfaces: abundant angular grog/mudrock 1–5mm and sparse rounded quartz 0.3–0.5mm.
IAGR4	Reduced	Iron Age tradition 'Gritty': Site fabric 4	-	A wheel-finished fabric with dark grey surfaces and a grey core: common grog/mudrock 0.7–5mm, sparse fossil shell (0.5–3mm), sparse ferrous-rich inclusions 0.3mm and sparse fine silver mica.
IAGR5	Reduced	Iron Age tradition 'Gritty': Site fabric 5	-	A reduced wheel-made fabric with abundant rounded quartz (0.3–1.5mm) and sparse ferrous rich grains (0.3–0.5mm).
IAGR7	Reduced	Iron Age tradition 'Gritty': Site fabric 7	-	As IAGR1 with common quartz sand.
IASA?	Reduced	IA type sandy wares	-	-
IASA1	Reduced	Iron Age Sandy: Site Fabric 1	-	Abundant fine sand rare ferrous rich inclusions, some vessels have rare voids.
IASA2	Reduced	Iron Age Sandy: Site Fabric 2	-	Common fine sand thin walled fine Late La Tène III type vessels.



Fabric code	Fabric group	Fabric details	NRFC (Tomber and Dore 1998)	Fabric description
IASA3	Reduced	Iron Age Sandy: Site Fabric 3	-	A mid grey handmade fabric with common to abundant sand c.0.3–0.5mm (similar to GREY1) a fragment from a handmade crucible was the only vessel noted.
RBBB1	Reduced	Rossington Bridge Black Burnished ware 1	ROS BB 1	-
SHEL	Calcareous	Miscellaneous undifferentiated shell- tempered	-	-
SHEL1	Calcareous	Shell gritted- Site fabric 1	-	Roman shell gritted ware. A wheel-made, relatively soft dark brown fabric with common coarse fossil shell inclusions up to 3mm (predominantly leached out due to soil conditions). Common rounded quartz (0.3-0.5mm) and sparse fine silver mica. Excavations near Rossington produced fragments of a split rimmed jar, South Yorkshire form E(c) (Buckland et al. 1980, fig. 4.24), in this fabric (Rowlandson 2013b). A similar fabric is present amongst the collection from the Little London kiln, Torksey, Lincolnshire (Oswald 1937, pl. I.4).



Fabric code	Fabric group	Fabric details	NRFC (Tomber and Dore 1998)	Fabric description
SHEL2	Calcareous	Shell gritted- Site fabric 2	-	Handmade shell-gritted fabric. Broadly as Rigby's 'proto-Dalesware' (Rigby and Stead 1976, 189). The sherds were mostly fired to brown to black surface hues with common to abundant voids from fossil shell 0.3mm-2mm (mostly 0.4mm), moderate quartz (0.3mm-0.5mm) and some silver mica. The acidic soil conditions have hindered identification of the shell utilised in this fabric and as such it should be viewed as a group and cannot macroscopically be attributed to a single production source with certainty. It may include vessels produced in East Yorkshire, the Scunthorpe area and further south. All sherds present are from jars with handmade bodies, tall everted rims with rounded or externally bevelled rim tips fired to a range of dark brown to grey surface colours. A production source in the vicinity of fossiliferous Jurassic deposits, broadly located to the east of this site, would appear most likely. This fabric probably dates to the 3rd century or perhaps the later 2nd century AD. All of the forms present in this assemblage are handmade throughout with better finished surfaces than some of the true shell-gritted Dales ware types that also typically have more poorly sorted fossil shell inclusion. This fabric group was amalgamated with Dales ware for the Rossington Colliery report (Rowlandson 2013b) where it was difficult to clearly discern abraded body-sherds from some of the Dales ware vessels present amongst that assemblage. In contrast, none of the typical Gillam 157 type rims were retrieved (Gillam 1970) from the Hatfield Lane site.
DWSHT	Calcareous	Dales ware type	DAL SH	-
DWSHT?	Calcareous	Dales ware type	DAL SH?	-
IASH1	Calcareous	Iron Age Shell Gritted: Site Fabric 1	-	A predominantly handmade fabric, varying surface colours ranging from brown to orange oxidised hues often with irregular surface colours but most commonly brown. Common fossil shell, Quartz sparse to rare up to 0.5mm, some ferrous inclusions present.
IASH2	Calcareous	Iron Age Shell Gritted: Site Fabric 2	-	A poorly mixed, handmade fabric predominantly fired to a dark brown to grey fabric with abundant fossil shell (0.3–5mm) and sparse rounded quartz (0.3–0.5mm).


Fabric code	Fabric group	Fabric details	NRFC (Tomber and Dore 1998)	Fabric description
IASH3	Calcareous	Iron Age Shell Gritted; Site Fabric 3	-	A handmade fabric with moderate fossil shell (1-2mm), moderate ferrous slag (1- 2.5mm) and moderate rounded quartz (0.35mm).
IASH4	Calcareous	Iron Age Shell Gritted; Site Fabric 4	-	A handmade fabric with moderate fossil shell (1-2mm) moderate rounded quartz (0.3- .5mm). Thin walled late La Tène III type vessels including necked jars with cordons and jars with wedge-shaped rims.
IASST1	Rock tempered	Sandstone and grit-tempered	-	Handmade with sandstone and quartz inclusions.
GRCM	Grog	Grog common medium	-	Earlier Prehistoric fabric
MISC	Misc	Misc uncategorised	-	-
PRO	Post Roman	Post-Roman Pottery	-	Misc. Post Roman
PRO?	Post Roman	Post-Roman Pottery	-	Misc. Post Roman



Appendix 2: decorated samian catalogue

The following catalogue lists and identifies the decorated pieces recovered from the site that could be attributed to individual potters or groups of potters. The catalogue is organised by phase (as valid in October 2017) and each entry gives the excavation context number with details of the decoration.

The letter and number codes used for the non-figured types on the Central Gaulish material, such as B223, C281 etc, are the ones created by Rogers (1974). The figured-types referred to as Os. *** are the ones illustrated by Felix Oswald in his Index of figure-types on terra sigillata (1936).

The Inventory Numbers (Inv. No.) quoted are taken from European intake of Roman Samian ceramics: <u>http://www.rgzm.de/samian/home/frames.htm</u>.



Cat.no.1-SMS13, (2263): Dr.37, Lezoux. The ovolo is too abraded to identify but the festoon (F56) with the little bird and the saltire suggest the work of Criciro v (Stanfield and Simpson 1990, pl.117, no.2 and Inv. No. 0011345 from Alcester for the saltire and the bird, see Inv. No. 0013256 for the festoon). AD 135–170

Cat.no.2-Trench 40, (4007): Dr.30, Lezoux. Five joining rim sherds. The ovolo is blurred but is perhaps the one on a bowl with an infra-decorative signature by Criciro v (Inv. No.0011361) which also has the wavy border, the beaded medallion E26 and Os.B. The sea creature, Os.48A, in the festoon (F16) were also used by Criciro v (Inv. No.0011366) but more typical of earlier potters too such as Austrus (Stanfield and Simpson 1990, pl.95, no.19). The erotic group and the medallion are however typical of Criciro v (Inv. No.0011362) though the form is not usual for him. The use of small circles is not typical of Criciro v and more akin to earlier related potters such as Attianus and Sacer but also Austrus.



Cat.no.3-Trench 40, (4007): Dr.37, Lezoux. The decoration is too partial to be identified. AD 120-200

Cat.no.4-SMS28, (5304): Dr.37, La Graufesenque. The ovolo with the trident-ending tongue tilted to the left is perhaps the predecessor to the one found on bowls with stamps by M. Crestio (Inv. No. 0004557) and therefore earlier. AD 70–90

Cat.no.5-WB, (5318): Dr.37, Lezoux. The division of the decoration into two friezes separated by a beaded border is typical of Libertus ii (Stanfield and Simpson 1990, pl.53, nos.623 and 626). The figured types - Os.85, 91(?), 446, 862, 2127 and 2409- are known for him (Inv. Nos.0011954, 0011967. AD 105–130

Appendix 3: assessment of the environmental evidence

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Charried											-						
Feature	Context	Sample Code	Group	Vol (L)	Sub- sample	Bioturbation proxies	Grain	Chaff	Cereal Notes	Other	Other Notes	Charcoal > 4/2mm	Charcoal	Other	Preservation	Vegetative plant parts	Other
SMS2	Poundho	1 [2020]															
	Koununo	Ring gully 14 a	nd short g	ully 17													
3064	3065	114502_59	RH1 CG14	17		50%, B, E	А	-	Triticum sp. (inc. spelta), Triticeae	с	Sparganium erectum	10 ml	Mature	-	Poor		
3003	3005	114502_33	RH1 CG14	30		80%, B	в	-	Triticum sp., Triticeae	с	Poaceae, Cyperaceae, Sparganium erectum	Trace	Mature	-	Poor		
3006	3007	114502_37	CG14	35		80%, B, E	с	С	Triticum sp. grain and spikelet fork fragment	-	-	Trace	Mature	-	Poor		
3008	3009	114502_34	CG14	40		80%, B, E, I	с	-	Triticum sp. (inc. spelta), Triticeae	с	Sparganium erectum	1 ml	Mature		Poor		
3010	3011	114502_35	CG14	20		80%, B, I	с	-	Triticum sp., Triticeae	с	Poaceae, Cyperaceae	Trace	Mature	-	Poor		
3012	3013	114502_36	CG14	38		80%, C	-	-	-	С	Poaceae, Polygonaceae, Cyperaceae	Trace	Mature	-	Poor		
3014	3015	114502_38	CG14	37		80%, B, E	с	-	Triticum sp., Hordeum vulgare, Triticeae	с	Poaceae	Trace	Mature	-	Poor		
3022	3023	114502_42	CG14	-													
3066	3067	114502_61	CG17	40		80%, C, F	С	-	Triticum sp., Triticeae	С	Cyperaceae	Trace	Mature	-	Poor		
		Pits and posth	oles	1	1		1		1	1	1	r	1	1	1	r	
		114502_52	3020	20		80%, B, E	С	-	Hordeum vulgare	С	Sparganium erectum	<1 ml	Mature	-	Poor		
3048	3049	114502_53	RH1 3020	20		80%, B, E	-	-	-	в	Urtica sp., Cyperaceae, indet seeds	Trace	Mature	-	Fair		
3062	3063	114502_58	RH1 3020	40		80%, A, E	A*	-	Triticum sp. (inc. spelta), Triticeae, cf. Hordeum vulgare	с	Poaceae, Fruit endocarp	Trace	Mature	-	Heterogenous		
3076	3077	114502_64	RH1 3020	16		80%, C	-	-	-	-	-	Trace	Mature + roundwood	-	-		
3074	3075	114502_63	RH1 3020	10		80%, C	-	С	Triticum sp. glume base and rachis segment	с	Poaceae	Trace in <1mm	Mature + roundwood	-	-		
3079	3080	114502_65	RH1 3020	8		80%,	-	-	-	-	-	Trace	Mature	-	-		
3081	3082	114502_66	RH1 3020	10		80%, C	-	-	-	с	Poaceae (Poa/Phleum), Ranunculus sp.	<1 ml	Mature	-	-		
3083	3084	114502_67	RH1 3020	10		80%, C, I	-	-	-	С	Poaceae	1 ml	Mature	-	Poor		
	Roundho	use 2 [3021]															
		Ring Gully 15	RH2								Poaceae (Poa/Phleum, Lolium/Festuca,		Mature +				
3055	3056	114502_54	CG15	33		80%, A	С		Triticum sp. (inc. spelta), Triticeae	С	Bromus sp.), Persicaria sp. Fruit mesocarp, Poaceae (Avena/Bromus,	Trace	roundwood	-	Poor		
	3019	114502_43	RH2 CG15	39		80%, A, E	A*	-	Triticum spelta, Hordeum vulgare (husked)	в	Lolium/Festuca), Cyperaceae, Sparganium erectum	2 ml	Mature + roundwood	-	Heterogenous		
3018	3026	114502_60	RH2 CG15	40		80%, A	A**	-	Triticum sp. (inc. spelta), Hordeum vulgare (some husked), Triticeae	А	Poaceae (Lolium/Festuca, Avena/Bromus, Bromus sp.)	<1 ml	Mature	-	Heterogenous		
			RH2	10					-		Corrigiola litoralis, Poaceae (inc. Bromus sp.), Polygonaceae, Sparganium erectum,						
3024	3025	114502_41	RH2	42		80%, A, E, F	A		riticum sp., Hordeum vulgare	A		2 mi	Mature	-	Poor		
3028	3027	114502_44	RH2	40		80%, A, E	A	-	ct. Hordeum vulgare	C	Rubus sp., Cyperaceae	Trace	Mature	-	Poor		
3029	3030	114502_46	CG15	40		80%, A, E	C	-	Triticum sp., Hordeum vulgare	C	Sparganium erectum, Poaceae,	Irace	Mature	-	Poor		
3031	3032	114502_48	CG15	40		80%, B, E, I	В	-	Triticum sp., Triticeae	А	Polygonaceae, Caryophyllaceae, Arrhenatherum elatius subsp. bulbosum	Trace	Mature	-	Heterogenous		
3033	3034	114502_45	CG15	40		80%, B	A*	-	Triticum sp., Hordeum vulgare	с	Cyperaceae, indet.	Trace	Mature	-	Poor		
3035	3036	114502_47	CG15	40		80%, B, E	А	С	base	С	Sparganium erectum, Poaceae	2 ml	Mature	-	Poor		
	T.	Postholes		1	T.				T	-			1	1			
3038	3039	114502 49	RH2 CG15	10		80%, C	-	-	-	-	-	Trace	Mature	-	-		
3040	3041	114502_50	RH2 CG15	10		80%, C	в	-	Triticum sp. (inc. spelta & dicoccum), Triticeae	-	-	Trace	Mature	-	Poor		
3042	3043	114502_51	RH2 CG15	10		80%, C, E, I	в	-	Hordeum vulgare	-	-	Trace	Mature	-	Poor		
3060	3061	114502_56	RH2 CG15	10		80%, C	-	-	-	-	-	Trace	Mature	-	-		
SMS3 Dit	ches			i i											-		
																	A** - Juncu Chenopodi
400403	400404	114501 4	CG19	18		E, F						с	Mature		Good	A***	Apiaceae, leaves, Cv
SMS4																•	
																	A* - Juncu aestivum/ti
400103	400107	114501 14	CG13	14		F.E						в	Mature		Good	A***	Chenopodi Erica sp. (s
											•						

Waterlogged	Invertebrates	
	(Insect, Molluscs,	
	Crustaceans)	Analysis
		P. C14
		.,
		D
		F
		P, C14
		Р
us spn (inc. fruit) Characese openores		
liaceae, Sambucus sp., Alisma sp., Polygonaceae.		
Carex sp., Betula sp, Poaceae spikelets, indet	Insects (B), Moll-f	
peraceae, Isotes sp. megaspores	(A*) moll-t (B)	
ssop (inc fruit) Hieracium sp. Triticum		
turgidum rachis, Characeae oospores, Alisma sp.,		
liaceae, Polygonaceae, Betula sp., Sambucus sp.,	Insects (B), Moll-t	
stem with fruit), indet bract scales, Poaceae	(C), Moll-f (A)	

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	1	Gro	un			1				harrod					Т	Waterlogged	las verte hande e	T
Feature	Context	Sample Code	Vo (L)	l Sub- sample	Bioturbation proxies	Grain	Chaff	Cereal Notes	Other	Other Notes	Charcoal > 4/2mm	Charcoal	Other	Preservation	Vegetative plant parts	Other	(Insect, Molluscs, Crustaceans)	Analysis
															A*** (inc.	Spikelets A* - Juncus spp. (inc. fruit), Betula sp. (fruits and catkin scale), Characeae oospores, Sambucus sp., Lycopsidae leaves, Chenopodiaceae, Isoetes sp. megaspores, Apiaceae, Alisma sp., Polygonaceae, Ranunculus sp., Poaceae spikelets, Poa/Phleum, Hieracium sp., indet. bract	Insects (B), Moll-f	
400716	400714	114501_23 CG1	8 20		90%, E				С	culm fragment, Indets	С	Mature		Good	roundwood)	scales	(A**), Moll-t (C)	
5MS7 + 1 6203	6204	114501 503 CG2	3 13		90% A F I	-	-	-	-	-	Trace	Mature	-	-	1			<u> </u>
0200	0204				0070, 7, 2, 1						11000	Mature +				Bolboschoenus maritimus, Hieracium sp., Polygonaceae, Betula sp., Silene sp., Typha sp., Sambucus sp., Juncus spp., Sparganium sp. leaves and sporangium, Chenopodiaceae, Alisma sp., Viola sp., Characeae oospore,	Insects (A*), Acari,	
6104 SMS11 T	6105	114501_502	18		10%, F, E	-	-	-	-	-	1 ml	roundwood	-		A**	indet. leaves	Ostracods	<u> </u>
2803	2804	114501 500 CG2	5 40		2%, A, E	-	-	-	-	-	Trace	Mature		-	A***		Moll-t	<u> </u>
2803	2805	114501_504 CG2	5 20		80%, A	-	-	-	-	-	1 ml	Mature	-	-				
2809	2810	114501_501 CG2	6 20		90%, A	-	-	-	-	-	-	-	-	-				
2376	2449	114502 576 CG3	0 20		80% A I	-	-	-	С	Poaceae culm Vicieae	Trace	Mature	-	-				1
2410	2409	114502_579 CG3	1 20		80%, A*, E, I	-	-	-	C	Poaceae stems	<1 ml	Mature	-	Fair				
	0.405	111500 570 000			000/ 044 1 5				2	Arrhenatherum elatius ssp. bulbosum								
2424	2425	114502_578 CG3	1 20		80%, A , I, F 90% A	-	-	-	- -	-	<1 mi	Mature	-	- Good				
SMS13	2100		20		00,0,7						naco	mataro						
	Kilns and	l hearth			-						-	-			-			
2240	2238	114502 557	10		90% C			-			Trace in	Mature						
5162	5159	114502_557 -	10		90%, C	-	-	-	-	-	Trace	Mature	-	-				
												Mature +						
5162	5160	114502_625	20		70%, B, E	-	-	-	С	Vicieae	10 ml	roundwood	-	-				<u> </u>
2207	Pit and p	osthole	5		90%, D, I	-	-	-	-	-	Trace	wature	-	-				
0045	0044	111500 550			200% . D			Triticum sp. glume base and grain, Triticeae		Sparganium erectum, Poaceae (inc. Bromus sp.), Cyperaceae, Rubus sp., Caryophyllaceae, Ranunculus sp., Asteraceae, Brassicaceae, Chenopodium	00 ml	Mature +						D 011
2245 5167	2244 5168	114502_559 -	20		30%, B 90%, C	- U	- -	grain	A	sp., Juncus sp. Malva sp. indet	80 mi	Mature	-	-				P, C14
0107	Layer	114002_020	20		0070, 0				Ŭ	Maria op., maet.	nace	Matare						
-	2188	114502_565 -	40		80%, B, E	С	-	Triticum sp., Triticeae	С	Poaceae	3 ml	Mature	-	Poor				
	Ditches	1				_	1	1	1		-			1	-	1	1	
2275	2276	114502_574 -	40		90%, A*, E, I	С	-	Triticum sp., Hordeum vulgare, Triticeae	С	(Bromus sp.)	Trace		-	Poor				
	1	Enclosure group 34						1	1	Linum unitationimum Tourrisidana	1	Matura						
1526	1529	114501 505 CG3	4 29		5%, A	с	-	Triticeae	A*	Cyperaceae, indet. seeds and tuber	30 ml	roundwood		Poor			Moll-t	P, C14
2158	2159	114502_567 CG3	4 18		90%, A, I	С	-	Hordeum vulgare	С	Rubus sp.	Trace	Mature	-	Poor				
0101	2182	114502_569 CG3	4 14		90%, C	-	-	-	-	-	Trace	Mature	-	-				
2243	2164	114502_570 CG3	4 20		80%, B, E	- C	C	- Triticum sp. grain and glume	-	-	10 ml	Mature	-	- Poor				
						-	-	Jane grante				Mature +						
2520	2521	114502_575 CG3	4 40		80%, A, I	-	-	-	С	Ranunculus sp., indet.	Trace	roundwood		-			Moll-f	
2164	2165	114502 572 CG3	5 16		80% B	-	-	-	С	Rosaceae	1 ml	Mature	-	-				1
2226	2227	114502_555 CG3	5 40		40%, C, E	С	-	Triticum sp.	č	Rubus sp.	10 ml	Mature	-	Poor				
5152	5154	114502_627 CG3	5 40		40%, B, E	С	-	Triticeae	С	Vicieae, Potentilla sp.	20 ml	Mature					Moll-f	
2215	2216	Enclosure groups 36	31,38		25% Δ Ι	-	-	-	Δ	Malva to sylvestris (Δ) Polygonaceae (C)	40 ml	Mature	-	Fair	1			<u></u>
2191	2192	114502_571 CG3	7 20		90%, A	-	-	-	c	Ranunculus sp., Cyperaceae, Poaceae	Trace	Mature	-	-	1			+
2193	2194	114502_554 CG3	8 10		80%, A	-	-	-	-	-	1 ml	Mature	-	-				
0175	0170	Enclosure group 39	0 01		0.00/	1	1			Desesse Outsettess	15 ml	Moture	-	Deer	1		1	
∠1/5 2213	∠1/0 2214	114502_568 CG3	9 18		00%, A 80%, A I	- C	-	- Triticum spelta	- -		15 mi 2 ml	Mature	-	Poor			1	+
2210		Enclosure group 40			0070,70,1	Ū						mataro		1 001				
	2246	114502_563 CG4	0 36		80%, B, I, F	С	с	Hordeum vulgare, Triticum spelta glume base and spikelet fork	В	Poaceae (Poa/Phleum, Lolium/Festuca), Cyperaceae, Plantago lanceolata, Ranunculus sp., indet. Poaceae (Poa/Phleum, Lolium/Festuca),	<1 ml	Mature	-	Poor				
2273	2274	114502_562 CG4	0 38		80%, B, I, F		С	Triticum sp. spikelet fork, culm nodes	С	Asteraceae, Cyperaceae, Rumex sp., indet.	2 ml	Mature	-	Poor				
	2106	Enclosure group 41	1 07		400/ 4	^		Triticum en Hordourn vulgere	1	1	60 ml	Maturo	1	Poor	1			
	2100	114502_558 CG4	-1 3/		40%, A, I	A	-	Hordeum vulgare grain, Triticum sp. glume	-	-		wature	-					<u> </u>
2185	2510	114502_564 CG4	1 40		80%, A	С	С	bases	С	Ranunculus sp. Linum sp., Galium sp. Rumex sp	5 ml	Mature	-	Poor				───
								Triticum sp. (inc. spelta), cf. Hordeum		Cyperaceae, Raphanus raphanistrum								
5163	5164	114502_623 CG4	6 24		90%, B, E, I	В	-	vulgare, Triticeae	А	seed capsule, Poaceae (Avena/Bromus)	5 ml	Mature	-	Heterogenous				P, C14
2711	2710	114502 589	40		10% C E I		_	Triticum of spalta	Δ	Arrhenatherum elatius ssp. bulbosum tubers, Fumaria sp., Sherardia arvensis, Valerianella sp. Brassicaceae	45 ml	Mature		Poor				P, C,
4111	2110	11702_000	40		10/0, U, E, I		1 -	macam or spolla		ימופוומוופוומ שיו. שומשטונמטלמל,		INIGLUIC		1 001	<u> </u>	1	1	

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Name Name <t< th=""><th></th><th></th><th></th><th>Group</th><th></th><th></th><th></th><th></th><th></th><th></th><th>С</th><th>harred</th><th></th><th></th><th></th><th></th><th></th><th>Waterlogged</th><th>Invertebrates</th><th></th></t<>				Group							С	harred						Waterlogged	Invertebrates	
No			Sample		Vol	Sub-	Bioturbation						Charcoal				Vegetative		(Insect, Molluscs,	
N <th< td=""><td>Feature</td><td>Context</td><td>Code</td><td></td><td>(L)</td><td>sample</td><td>proxies</td><td>Grain</td><td>Chaff</td><td>Cereal Notes</td><td>Other</td><td>Other Notes</td><td>> 4/2mm</td><td>Charcoal</td><td>Other</td><td>Preservation</td><td>plant parts</td><td>Other</td><td>Crustaceans)</td><td>Analysis</td></th<>	Feature	Context	Code		(L)	sample	proxies	Grain	Chaff	Cereal Notes	Other	Other Notes	> 4/2mm	Charcoal	Other	Preservation	plant parts	Other	Crustaceans)	Analysis
												Asteraceae, Polygonaceae, Trifolieae,								
	SMS28											Indets								
	011020	Ditches																		
Image Image <t< td=""><td></td><td>21101100</td><td>Enclosure grou</td><td>up 62</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		21101100	Enclosure grou	up 62																
Image Norm A A Norm A A Norm A A Norm Norm <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Mature +</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>														Mature +						
im im im <		2570	114502_583	CG62	8		<1%	С	-	Triticum sp.	С	Chenopodium sp., Poaceae	120 ml	roundwood		Poor				
m m </td <td>0554</td> <td>0500</td> <td>444500 500</td> <td>0000</td> <td>0</td> <td></td> <td>-10/</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>070</td> <td>Mature +</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	0554	0500	444500 500	0000	0		-10/						070	Mature +						
30 30 30 30 30 30 30 30 30 300 <	2554	2560	114502_592	CG62	8		<1%	-	-	-	-	-	370 mi	Mature +		-				ł – – – – – – – – – – – – – – – – – – –
m m	2573	2582	114502 641	CG62	10		<1%	С	-	Triticum sp., Triticeae	С	Chenopodium sp.	70 ml	roundwood		Poor				
M M			_							•		Caryophyllaceae, Poaceae, Chenopodium		Mature +						
Here Here <t< td=""><td>2792</td><td>2794</td><td>114502_585</td><td>CG62</td><td>40</td><td></td><td>60%, C, I</td><td>С</td><td>С</td><td>Triticum sp. glume base, Triticeae grain</td><td>С</td><td>sp., Viola sp., Sparganium erectum</td><td>30 ml</td><td>roundwood</td><td></td><td>-</td><td></td><td></td><td></td><td></td></t<>	2792	2794	114502_585	CG62	40		60%, C, I	С	С	Triticum sp. glume base, Triticeae grain	С	sp., Viola sp., Sparganium erectum	30 ml	roundwood		-				
Mode Mode <t< td=""><td></td><td>5042</td><td>114502 607</td><td>CG62</td><td>32</td><td></td><td>10% B</td><td></td><td>-</td><td>_</td><td>-</td><td>-</td><td>15 ml</td><td>Mature +</td><td></td><td>_</td><td></td><td></td><td></td><td></td></t<>		5042	114502 607	CG62	32		10% B		-	_	-	-	15 ml	Mature +		_				
No. No. <td>5041</td> <td>5053</td> <td>114502 598</td> <td>CG62</td> <td>20</td> <td></td> <td>90%, B, E, I</td> <td>С</td> <td>-</td> <td>cf. Hordeum vulgare</td> <td>С</td> <td>Poaceae (Poa/Phleum)</td> <td><1 ml</td> <td>Mature</td> <td>-</td> <td>Poor</td> <td></td> <td></td> <td></td> <td>1</td>	5041	5053	114502 598	CG62	20		90%, B, E, I	С	-	cf. Hordeum vulgare	С	Poaceae (Poa/Phleum)	<1 ml	Mature	-	Poor				1
No No No No No </td <td></td> <td></td> <td>—</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Triticum sp. (inc. spelta) grains, some</td> <td></td> <td>,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			—							Triticum sp. (inc. spelta) grains, some		,								
Norm Norm <t< td=""><td>5405</td><td>5407</td><td>444500 040</td><td>0000</td><td>10</td><td></td><td>400/ At E I</td><td>A +++</td><td></td><td>sprouted, glume bases, rachis segments,</td><td></td><td>Chenopodiaceae, <i>Polygonum sp.,</i> indet.</td><td>C ml</td><td>Matura</td><td></td><td>E a la</td><td></td><td></td><td></td><td></td></t<>	5405	5407	444500 040	0000	10		400/ At E I	A +++		sprouted, glume bases, rachis segments,		Chenopodiaceae, <i>Polygonum sp.,</i> indet.	C ml	Matura		E a la				
m m	5125	5127	114502_616	CG62	40		40%, A ² , E, I 80% B E I	A	A.	Triticeae coleoptiles and detached empryos	A.	Poaceae (Inc. Bromus sp.)	5 MI <1 ml	Mature	-	Fair				Р
Image Image <t< td=""><td>5225</td><td>5250</td><td>114302_030</td><td>0002</td><td>40</td><td></td><td>0070, D, L, I</td><td>Ŭ</td><td>-</td><td>Thiocae</td><td>-</td><td>Poaceae (Bromus sp., Rumex sp.,</td><td>\$1.110</td><td>Wature</td><td>-</td><td>1 001</td><td></td><td></td><td></td><td></td></t<>	5225	5250	114302_030	0002	40		0070, D, L, I	Ŭ	-	Thiocae	-	Poaceae (Bromus sp., Rumex sp.,	\$1.110	Wature	-	1 001				
No. No. <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Triticum sp. (inc. spelta) grains and glume</td> <td></td> <td>Polygonum sp., Linum usitatissimum seed</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>										Triticum sp. (inc. spelta) grains and glume		Polygonum sp., Linum usitatissimum seed								
No		5293	114502_645	CG62	40		30%, C, I	A***	A**	bases, Triticeae detached embryos	A***	capsule frag, Asteraceae	Trace	Mature	-	Fair				Р
No. No. <td>5202</td> <td>5207</td> <td>114502 646</td> <td>CG62</td> <td>40</td> <td>50%</td> <td>1% B F</td> <td>C</td> <td>_</td> <td>Triticum spelta</td> <td>C</td> <td>Galiuman of Bromusan</td> <td>250 ml</td> <td>Mature +</td> <td>_</td> <td>Poor</td> <td></td> <td></td> <td></td> <td></td>	5202	5207	114502 646	CG62	40	50%	1% B F	C	_	Triticum spelta	C	Galiuman of Bromusan	250 ml	Mature +	_	Poor				
Matrix Matrix Matrix <td>5232</td> <td>52.51</td> <td>Enclosure grou</td> <td>up 64</td> <td>40</td> <td>5070</td> <td>170, D, L</td> <td>U</td> <td>-</td> <td>Thican Spena</td> <td>U</td> <td>Ganamap., Gr. Bromas ap.</td> <td>200 m</td> <td>Touridwood</td> <td>-</td> <td>1 001</td> <td></td> <td></td> <td></td> <td></td>	5232	52.51	Enclosure grou	up 64	40	5070	170, D, L	U	-	Thican Spena	U	Ganamap., Gr. Bromas ap.	200 m	Touridwood	-	1 001				
100 100 </td <td>l I</td> <td></td> <td></td> <td></td> <td></td> <td>Ĩ</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Poor (one grain</td> <td></td> <td></td> <td></td> <td></td>	l I					Ĩ										Poor (one grain				
No	5148	5149	114502_620	CG64	40		80%, A**, E	С	-	Triticeae	-	-	Trace	Mature	-	looks intrusive)				
Mo Mo<	50.40	5044	444500 000	0004			484 0						455	Mature +						
No. 1000 m No. 100	5240	5241	114502_632	CG64	33		1%, C	-	-	-	-	-	155 MI	rounawood	-	-	l .			
100 100 <td></td> <td></td> <td>Linciosure grou</td> <td>10 00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>Poaceae (Poa/Phleum Bromus sp.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			Linciosure grou	10 00							1	Poaceae (Poa/Phleum Bromus sp.)								
view view <th< td=""><td>5040</td><td>5039</td><td>114502_599</td><td>CG66</td><td>40</td><td></td><td>70%, A, E, I</td><td>в</td><td>С</td><td>Triticum spelta grains and glume base</td><td>А</td><td>Sparganium erectum, Cyperaceae</td><td>10 ml</td><td>Mature</td><td>Sab</td><td>Poor</td><td></td><td></td><td></td><td></td></th<>	5040	5039	114502_599	CG66	40		70%, A, E, I	в	С	Triticum spelta grains and glume base	А	Sparganium erectum, Cyperaceae	10 ml	Mature	Sab	Poor				
101 102 <td></td> <td></td> <td>Enclosure grou</td> <td>up 67</td> <td></td> <td>•</td> <td>•</td> <td></td> <td></td> <td></td>			Enclosure grou	up 67												•	•			
BAB MINOLOGY CUI MINOLOGY MINOLOGY <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Raphanus raphanistrum seed capsule,</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td></t<>												Raphanus raphanistrum seed capsule,								-
matrix	2630	2631	114502_584	CG67	40		40%, C, I	С	-	Triticum sp., Triticeae	С	Polygonum sp., Malus/Sorbus, Linum sp.	30 ml	Mature	-	Heterogenous				Р
Sold Sold <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Triticum sp. (inc. dicoccum) and Hordeum</td><td></td><td>Linum sp., indet, Arrhenatherum elatius</td><td></td><td></td><td></td><td>Poor (one grain</td><td></td><td></td><td></td><td></td></t<>										Triticum sp. (inc. dicoccum) and Hordeum		Linum sp., indet, Arrhenatherum elatius				Poor (one grain				
101 1400 1400 140	5062	5063	114502_600	CG67	40		80%, B, E, I	А	С	vulgare grains, Triticum sp. spikelet forks	А	subsp. bulbosum	2 ml	Mature	-	looks intrusive)				
Dest Dest <thdest< th=""> Dest Dest <thd< td=""><td>5108</td><td>5109</td><td>114502_603</td><td>CG70</td><td>40</td><td></td><td>80%, A, I</td><td>С</td><td>-</td><td><i>Triticum</i> sp.</td><td>С</td><td>Poaceae (Bromus sp.), Linum sp.</td><td>1 ml</td><td>Mature</td><td></td><td>Poor</td><td></td><td></td><td>Moll-f</td><td></td></thd<></thdest<>	5108	5109	114502_603	CG70	40		80%, A, I	С	-	<i>Triticum</i> sp.	С	Poaceae (Bromus sp.), Linum sp.	1 ml	Mature		Poor			Moll-f	
100 100 <th>5400</th> <th>Cremation</th> <th>graves</th> <th>1</th> <th>1.0</th> <th>1</th> <th>000/ D I</th> <th></th> <th></th> <th></th> <th></th> <th>· · · ·</th> <th></th> <th>[</th> <th>1</th> <th></th> <th>1</th> <th></th> <th></th> <th></th>	5400	Cremation	graves	1	1.0	1	000/ D I					· · · ·		[1		1			
Box Copy Hyry group B Lo Lo Lo Dot Dot Dot Lo Lo <thlo< th=""> Lo <thlo< th=""> Lo Lo Lo<td>5192</td><td>5193</td><td>114502_628</td><td></td><td>16</td><td></td><td>80%, B, I</td><td>C</td><td>-</td><td>Triticum sp.</td><td>C</td><td>indet.</td><td>1 mi 30 ml</td><td>Mature</td><td>-</td><td>Poor</td><td></td><td></td><td></td><td></td></thlo<></thlo<>	5192	5193	114502_628		16		80%, B, I	C	-	Triticum sp.	C	indet.	1 mi 30 ml	Mature	-	Poor				
1000 1000 <th< td=""><td>5050</td><td>Crop-drve</td><td>rs group 65</td><td></td><td>4.5</td><td></td><td>3070, 0, 1</td><td>-</td><td>-</td><td></td><td>-</td><td>-</td><td>30 111</td><td>Wature</td><td>-</td><td>-</td><td></td><td></td><td></td><td></td></th<>	5050	Crop-drve	rs group 65		4.5		3070, 0, 1	-	-		-	-	30 111	Wature	-	-				
1 1			- <u>3</u>									Poaceae (Bromus sp., Poa/Phleum),								
Part Part <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Triticum sp. (including sprouted spelta)</td><td></td><td>Chenopodiaceae, Cyperaceae,</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>										Triticum sp. (including sprouted spelta)		Chenopodiaceae, Cyperaceae,								
k k		2618	114502_580	-	40		75%, B	A*	С	grains and glume base	A	Caryophyllaceae, Agrostemma githago	10 ml	Mature	-	Poor				Р
k k										(including sprouted spelta and within		Poaceae (Bromus sp., Poa/Pnieum), Ranunculus sp. Asteraceae								
Image Image <th< td=""><td></td><td>2632</td><td>114502 581</td><td>-</td><td>40</td><td></td><td>80%, A, E, I</td><td>A**</td><td>С</td><td>spikelet) A*</td><td>А</td><td>Polygonaceae, Agrostemma githago</td><td>Trace</td><td>Mature</td><td></td><td>Poor</td><td></td><td></td><td></td><td>Р</td></th<>		2632	114502 581	-	40		80%, A, E, I	A**	С	spikelet) A*	А	Polygonaceae, Agrostemma githago	Trace	Mature		Poor				Р
n n												Raphanus raphanistrum capsule, Vicieae,								
1 1										Triticum spelta grains (A***) some sprouted		Chenopodiaceae, Asteraceae, Poaceae								
Image Image <th< td=""><td></td><td>2686</td><td>114502 587</td><td></td><td>44</td><td>25%</td><td>5%</td><td>A***</td><td>С</td><td>Secale cereale (C), detached embryos</td><td>А</td><td>Polygonaceae, Valerianella sp., indet.</td><td>1 ml</td><td>Mature</td><td></td><td>Fair</td><td></td><td></td><td></td><td>Р</td></th<>		2686	114502 587		44	25%	5%	A***	С	Secale cereale (C), detached embryos	А	Polygonaceae, Valerianella sp., indet.	1 ml	Mature		Fair				Р
274 1492 091 40 75% A, E A - Tridoae - <td>1 1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Triticum sp.(inc. spelta, some germinated),</td> <td></td>	1 1									Triticum sp.(inc. spelta, some germinated),										
214 11450 259 40 50% 30%, A A* C Account of specify (fricting A) A Pair (fricting A) Pair (fricting A)<		2747	114502_591		40		75%, A, E	А	-	Triticeae	-	-	1 ml	Mature		Poor				
1 1 0	2611	2748	114502 590		40	50%	30% A	Δ**	C	Horaeum vulgare and Triticum sp. (Inc.	Δ	Poaceae (Bromus sp., Poa/Phleum), Asteraceae Juncus sp. Indet	20 ml	Mature		Fair				P, C, C14
n n	2011	21-10	117002_000	1	-10	0070	0070, A			<i>Triticum spelta</i> grains (A), some sprouted.	<u> </u>	, atoraceae, eanous op., maet	2011	mature	1	7 GI	l			
233 274 11432_58 9 2% 6% A* C Value A Britasp. Avena sp. Judde 20 ml Mature - Poor Image: Constraint of the cons						1				spikelets (C), glume bases (C), Hordeum	Ι.	Chenopodiaceae, Vicieae, Poaceae (inc.			1					
Integration in the series in the seri	2633	2746	114502_588		39	25%	5%	A*	С	vulgare (C), detached embryos	А	Briza sp., Avena sp.), indet	20 ml	Mature	1	Poor				P, C
above bit bit </td <td>2000</td> <td>FO22</td> <td>114502 502</td> <td>1</td> <td>0.5</td> <td>1</td> <td>~10/</td> <td>٨</td> <td>1</td> <td>Triticum sp. Hordoum vulgara</td> <td>1</td> <td></td> <td>20 ml</td> <td>Moturo</td> <td>1</td> <td>Door</td> <td></td> <td></td> <td></td> <td></td>	2000	FO22	114502 502	1	0.5	1	~10/	٨	1	Triticum sp. Hordoum vulgara	1		20 ml	Moturo	1	Door				
Internal	2000	5259	114502_093		36	-	10% A* I F	C	1 1	Triticum sp., Triticeae	- C	- Poaceae (Bromus sp.) Polygonaceae	20 ml	Mature	-	Poor				C
5201 1302 40 1302 40 907		0200	111002_010				10,0,71,1,2			Triticum sp. (inc. spelta and dicoccum),	Ŭ		00111	mataro		1 001				0
VINS VINS <th< td=""><td>5261</td><td>5260</td><td>114502_642</td><td></td><td>38</td><td></td><td>50%, B, E</td><td>А</td><td>-</td><td>some sprouted</td><td>С</td><td>Poaceae (Bromus sp.)</td><td>20 ml</td><td>Mature</td><td>-</td><td>Poor</td><td></td><td></td><td></td><td>С</td></th<>	5261	5260	114502_642		38		50%, B, E	А	-	some sprouted	С	Poaceae (Bromus sp.)	20 ml	Mature	-	Poor				С
286 14502 588 5 5 5 50%, F 5 6		Kilns		1	-	1		-			1	1		•• ·	-					
2030 2030 14502 500 0 <	2565	2606	114602 696		5		50% E						5 ml	Mature +						C
5018 14502 597 40 40 502 504 14502 597 40 40 502 502 14502 597 40 60 502 502 14502 507 60	2000	2090	114302_380		5		30%, F	-	-	-	-	-	5111	Mature +		-				C
507 503 14502 596 - - - - - - 2500 Mature - Mature - Mature - Mature -		5018	114502_597		40		5%, E	С	-	Triticum spelta		-	300 ml	roundwood		Poor			Moll-f	С
502 1450_60 2 0 20% C, E -	5017	5032	114502_596		10		<1%, E	-	-	-	-	-	250 ml	Mature	-					С
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		5000	114500 604		20		200/ 0 5						200 ml	Mature +						6
bol 11450_500 20 100, 0, L -	5021	5067	114502_604		20	1	20%, C, E	-	-	-	-	- _	200 mi 175 ml	Mature	1-	-	<u> </u>			C
5026 11450_594 40 503, B,E,I C - Triticum sp.(inc. speta), Triticame C Viciae, Pacea (Bronus sp.) 120 ml roundwood - Poor Image: Constraint of the special c	0021	0001	117002_000		20	1	1070, U, L	1	1 1		t		1.011	Mature +	1	1				Ť
503 1450_595 40 50% <1%, B C - Triticum sp., Triticane C Viciane S0 S001 S001 - Poor Poor Poor C <td></td> <td>5026</td> <td>114502_594</td> <td></td> <td>40</td> <td></td> <td>50%, B, E, I</td> <td>С</td> <td>-</td> <td>Triticum sp. (inc. spelta), Triticeae</td> <td>С</td> <td>Vicieae, Poaceae (Bromus sp.)</td> <td>120 ml</td> <td>roundwood</td> <td>-</td> <td>Poor</td> <td> </td> <td></td> <td></td> <td>С</td>		5026	114502_594		40		50%, B, E, I	С	-	Triticum sp. (inc. spelta), Triticeae	С	Vicieae, Poaceae (Bromus sp.)	120 ml	roundwood	-	Poor				С
b02 1400_2393 40 50% 40 50% 60 6 7000 6000 </td <td>5024</td> <td>5000</td> <td>114500 505</td> <td></td> <td>40</td> <td>50%</td> <td><10/ D</td> <td>6</td> <td>T</td> <td>Triticum on Triticano</td> <td><u> </u></td> <td>Visiona</td> <td>250 ml</td> <td>Mature +</td> <td></td> <td>Deer</td> <td></td> <td></td> <td></td> <td><u> </u></td>	5024	5000	114500 505		40	50%	<10/ D	6	T	Triticum on Triticano	<u> </u>	Visiona	250 ml	Mature +		Deer				<u> </u>
504 11450_602 9 50%, A, E - - - - - - - - - - - - - - 0 <th0<< td=""><td>5031</td><td>5050</td><td>114502_595</td><td></td><td>40</td><td>50%</td><td><1%, B 60% B F I</td><td>- U</td><td>-</td><td></td><td></td><td>Vicieae Prunus sp. endocarp. Ranunculus sp.</td><td>350 mi 5 mi</td><td>Mature</td><td>-</td><td>Poor</td><td> </td><td></td><td></td><td>C C</td></th0<<>	5031	5050	114502_595		40	50%	<1%, B 60% B F I	- U	-			Vicieae Prunus sp. endocarp. Ranunculus sp.	350 mi 5 mi	Mature	-	Poor				C C
5056 5057 11450_610 13 10%, C, E, I	5049	5054	114502 602		9	1	50%, A, E	-	-	-	-	-	25 ml	Mature	1	-			Moll-f	c
5056 5057 114502_610 13 10%, C, E, I 200 ml roundwood C				1	1	1	, ., –	1	1					Mature +	1					
	5056	5057	114502_610		13	I	10%, C, E, I	-	-	-	-	-	200 ml	roundwood	-	-				С

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	1		Group		1	1	1				harrad						Waterlagged	have at a base to a	
		0	Group	M-1	01	Disturbation					narred	Oherseel				Manatathaa	wateriogged	Invertebrates	
E	0	Sample		VOI	Sub-	Bioturbation	Quality	01	Ormal Nation	011	Other Nation	Charcoal	01	011	Descention	Vegetative	Others	(Insect, Molluscs,	America
Feature	Context	Code		(L)	sample	proxies	Grain	Chaff	Cereal Notes	Other	Other Notes	> 4/2mm	Charcoal	Other	Preservation	plant parts	Other	Crustaceans)	Analysis
	5058	114502_615		15		60%, B	С	-	I riticum sp. (some sprouted), I riticeae	С	Poaceae	25 ml	Mature		Poor				C
	5092	114502_614		10		50%, B	-	-	-	-	-	5 ml	Mature	-	-				С
										_	Poaceae, Cyperaceae, Ranunculus sp.,								
5090	5093	114502_613		38		75%, A, E	-	-	-	В	indet. tubers	5 ml	Mature	-	Fair				C
	5130	114502_618		10		20%, C	С	-	Triticeae	-	-	30 ml	Mature	-	Poor				С
													Mature +						
5129	5131	114502_619		40		50%, B, E	-	С	Triticum sp. glume base	-	-	30 ml	roundwood	-	Poor				C, C14
5133	5134	114502_621		18		40%, B	-	-	-	-	-	20 ml	Mature	-	-				С
5135	5136	114502_622		40		20%, A, E, I	-	-	-	-	-	40 ml	Mature	-	-				С
													Mature +						
													roundwood,						
													some large						
5143	5140	114502 617		38		10%. B	-		-	-	-	300 ml	pieces	-	-				С
					25% <1								Mature +						
	5216	114502 633		40	cm	<1%. C	-	-	-	-	-	4200 ml	roundwood	-					С
						.,., .							Mature +						-
5217	5234	114502 634		40	50%	1% C	-	-		C	Indet	350 ml	roundwood	-	Poor				C
5219	5210	114502_004		40	0070	75% A E				Ŭ	indet.	5 ml	Mature		1 001				C C
5210	JZ 19	114302_029		40		75%, A, L	-	-	-	-		5111	Mature	-	-				C
5001	5000	114502 621		25		900/ D	6		Tritioum on Tritiogon detached ombrue	в	Visiona Cuperanna indet	Traca	Moturo		Door				
5231	5255	114502_031		30		60%, D	C	-	Thicking anothe	Б	vicieae, Cyperaceae, indet.	fidue 60 ml	Mature	-	FUUI	-			<u> </u>
	-	114502_640A	-	30		50%, C, I	U	-	Thicum spena	-	-	60 mi	Mature	-	P001				C
5005	5007	444500 0400		40		10/ 0 1				0	ladet bude Maines	550 ml	Mature +		E e la				0
5205	520/	114502_640B		40	<u> </u>	<1%, U, I	-	-	- Tritieren die een		Indet., buds, vicieae	550 MI	rounawood	-	rair	+			
5287	5286	114502_647		10	L	20%, B, I	C	-		C	Rumex sp., Poaceae, Juncus sp., indet.	30 ml	Mature	-	-	1			C
									Inticum sp. (inc. spelta and dicoccum,							1			
5290	5288	114502_648		30	ļ	50%, A, E	А	-	mostly sprouted), Hordeum vulgare (C)	С	Juncus sp., Cyperaceae, Asteraceae	25 ml	Mature	-	⊦air				Р
						1	1.					1	Mature +			1			
5300	5299	114502_649		40		60%, A, I	В	-	Triticum sp., Triticeae	-	-	15 ml	roundwood		Poor				С
	Pits																		
5068	5069	114502 644		38		30%, A. I	С	-	Triticum spelta	С	Trifoliae, Poaceae	25 ml	Mature	-	-				
				*	t				Triticum sp. (inc. spelta, some sprouted)	-		1	1			1			1
									and cf. Secale cereale (C) grains. Triticum										
									sp. glume bases and rachis frags, and						Poor (one grain				
5077	5078	114502 651		40		80% A E I	А	А	Triticeae detached embryo	А	Poaceae (Bromus sp.) Asteraceae	Trace	Mature		looks intrusive)				
5100	5107	114502_606		0.75		80% C	-	-	-	-	-	<1 ml	Mature	-	-	1			
5112	5113	114502_000		28		20% B I	-	-	-	-	-	35 ml	Mature	-					
5112	5115	114502_011		16		20 /0, D, T	-	-	-	-	Baaaaaa	2 ml	Mature		- Boor				
5114	5115	114502_008		10		00%,A, E	-	-	- Trition on Trition of	C		2 III	Mature	-	FUUI				
5222	5223	114502_609		40		40%, C, I, E	L	-	Triticum sp., Triticeae	C	Poaceae (Bromus sp.)	20 mi	Mature	-	Poor				
5253	5254	114502_635		10		20%, C, I	-	-	-	-	-	Trace	Mature		-				
	0010	444504 505		40		750/ 4				0	5		Mature +		– .				
9209	9212	114501_507		19		75%, A	-	-	-	С	Poaceae, Asteraceae	2 ml	roundwood		Fair			Moll-t	
	Layer																		
											Indet., Poaceae (Poa/Phleum),								
-	5303	114502_650		40		50%, A	-	-	-	С	Sparganium erectum	60 ml	Mature		Fair			-	
												Trace in							
-	5309	114502_652		40		90%, B, I, E	-	-		-	-	<1mm	Mature		Poor			-	
SMS30 Tr	40-44																		
	Ditches																		
	21101100				I		1	Г	Triticum of monococcum/dicoccum			T	1			1			
4004	4005	114501 547	_	24		80% B E I	C	-	Triticeae	C	Chenopodiaceae	Trace	Mature		Poor			Moll-t	
4104	4005	114501_546	-	29		80% A E I	0	-	Thiceae	Ŭ	Chenopodiaceae		Mature		1 001			Moll t	
4149	4103	114501_040	-	20	ł	80% C	-		Triticeae	-	- Indet tuber	Traca	Mature		Poor	1		Moll t	+
4112	4113	114501_540	-	0		00%,0	C	-	Triticeae (inc. of Hordoum undered)		Popopa (Pop/Phloum) Delucerance	Tress	Moture		Poor			Moll t	
4303	4304	114501_544	-	21	l	90%, A, E, I, F	U	-	maceae (inc. ci. nordeum vulgare)		Ambanathanima alating and hult and	riace	wature		ruui	1		IVIOII-L	
1005	4000	444504 545		07	1	000/ 5			Talling and		Arrnenatherum elatius ssp. bulbosum	T	Matura		Deer	1		NA-11.4	
4305	4306	114501_545	-	27	ļ	80%, B, I	C	-	Inticeae	C	tuber, Poaceae	Trace	Mature		H00L			IVIOII-t	
							1				Poaceae, Cyperaceae, Polygonaceae,		1			1			
							1				Ranunculus sp., Arrhenatherum elatius		1			1			
1100	4400	444504 515		00	1	000/ 0 :	1				ssp. bulbosum tuber, Sparganium	4	N	<u> </u>	E - i -	1			D GU
4408	4406	114501_518	I	22		60%, C, I	-	-	-	A**	erecium stones	4 MI	Mature	Sab	⊢air			IVIOII-t (A^**)	P, C14
ļ	Pits											1							
					1	1	1					Trace in				1			
4114	4115	114501_541		8		90%, B	-	-	-	-	-	<0.5mm	Mature		-			Moll-t	
												Trace in							
4116	4117	114501_539		8		80%, C	-	-	-	-	-	<1mm	Mature		-			Moll-t	
			1								Arrhenatherum elatius ssp. bulbosum								
4204	4206	114501_551	1	28		80%, B, E, I	С	-	Triticeae	В	tubers, Viola sp., Poaceae	Trace	Mature		Fair			Moll-t	
								Γ				Trace in							
4217	4218	114501_512		5	1	90%, C	-	-	-	-	-	<1mm	Mature		-	1		Moll-t	
					[Trace in							
4219	4220	114501 513		3	1	90%, C	-	-	-	1 -	-	<1mm	Mature		-	1		Moll-t	
4237	4238	114501 550	1	15	l	90%, B. E. I. F	-	-	-	С	Cyperaceae, Polygonaceae, indet.	Trace	Mature	i i	Poor	1		Moll-t	1
	1		1 1	-	1	, _, _, _, ., .	1	1		-	,, .,,,	Trace in				1			1
4265	4266	114501 535	1	6		90% C	-	_	_	-	-	<1mm	Mature		-			Moll-t	
4267	4268	114501 536		4		90% C	-	-	-	-	-	Trace	Mature		-	1		Moll-t	
4260	4270	114501_530		2	ł	80% P E I	+			+	<u>}</u>	Trace	Mature		_	1		Moll_t	+
4209	4272	114501_007		2		00 /0, D, E, I	-	-	-	+	+ -		Mature		Cood			Moll t	
4271	4212	114501_538	1	3		00%, C	-	-	-	-	-	ST 1111	wature		9000			IVIOII-L	1
	Postholes										I		1			-	1		1
4209	4210	114501_508		3	ļ	90%, C, E	-	-	-	-	-	Trace	Mature		-			Moll-t	
			1	1			1			1			Mature +						
4211	4212	114501_509	1	11	L	90%, C, I	-	-	-	-	-	Trace	roundwood		-			Moll-t	
4213	4214	114501_510		12		90%, C, I	-	-	-	-	-	Trace	Mature		-			Moll-t	
4215	4216	114501 511		5		90%, C, E, I	-	-	-	-	-	Trace	Mature		-			Moll-t	
4221	4222	114501 514		20		90%, A, I	-	-	-	-	-	Trace	Mature		-			Moll-t	
·								•		-				_					

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		G	oun	1						C	harred					1	Waterlogged	Invortobratos	1
		Sample	V	ol	Sub-	Bioturbation						Charcoal				Vegetative	Hatonoggou	(Insect. Molluscs.	
Feature	Context	Code	(1)	sample	proxies	Grain	Chaff	Cereal Notes	Other	Other Notes	> 4/2mm	Charcoal	Other P	reservation	plant parts	Other	Crustaceans)	Analysis
				_								Trace in							
4223	4224	114501_515	1.5	5		90%, C	-	-	-	-	-	<1mm	Mature	-				Moll-t	
4225	4220	114501_516	2 15			90%, C, E	-	-	-	-	-	Trace	Mature	-				Moll t	
4227	4220	114501_519	10	,		90%, C, I	-	-	-	-	-	Trace	Mature	-				Moll-t	
4223	4230	114501_521	3			90%, C, T						Trace	Mature					Moll-t	
4231	4232	114301_321	5			90 %, C	-	-	-	-	-	Trace in	Wature	-				WOII-L	
4233	4234	114501 522	5			90%, C. I	-	-	-	-	-	<1mm	Mature	-				Moll-t	
4235	4236	114501 523	20)		90%, C, E, I	-	-	-	-	-	Trace	Mature	-				Moll-t	
												Trace in							
4241	4242	114501_549	8			90%, C	-	-	-	С	Polygonaceae	<1 ml	Mature	E	air			Moll-t	
4243	4244	114501_524	10)		90%, B, E, I	-	-	-	-	-	Trace	Mature	-				Moll-t	
												Trace in							
4245	4246	114501_525	2			90%, C	-	-	-	-	-	<1mm	Mature	-				Moll-t	
4247	4248	114501_526	2			90%, C	-	-	-	-	-	Trace	Mature	-				Moll-t	
4249	4250	114501_527	10)		90%, C	-	-	-	-	-	Trace	Mature	-				Moll-t	
4251	4252	114501_528	3			90%, C	-	-	-	-	-	Trace	Mature	-				Moll-t	
4253	4254	114501_529	2			90%, C, I	-	-	-	-	-	Trace	Mature	-				Moll-t	
4255	4200	114501_550	2			90%, C	-	-	-	-	-	Trace in	wature	-				IVIOII-L	
4257	4258	114501 531	5			90% C					-	<1mm	Mature					Moll-t	
4259	4260	114501_532	2			80% C I					-	<1 ml	Mature	-				Moll-t	
			-			, , .	1	1		1		Trace in				İ			1
4261	4262	114501_533	4			90%, C	-	-	-	С	Poaceae	<1mm	Mature	P	Poor			Moll-t	1
4263	4264	114501_534	15	;		80%, B, I	-	-	-	-	-	Trace	Mature	-				Moll-t	
Trench 3/	4																		
											Arrhenatherum elatius subsp. bulbosum,	Trace in							
3A04	3A05	114501_506	27			5%, C	С	-	Hordeum vulgare	С	Polygonum sp.	<1mm	Mature	P	Poor			Moll-t (A***), Moll-f	
Trenches	75-78									_									
																A*** (inc.			
	7500	444504 550	47		050							Teres	Mature			leaves and	A** (Cyperaceae, Betula sp., Alnus sp., Rubus sp., Lycopus	Incontra Energy	
-	7503	114501_552 -	17		250 mi		-	-	-	-	-	F malin	wature			stems)	europaeus, Ranunculus sp., Urtica sp.)	Insects, Eggs	
_	7802	114501 517	20		250 ml			_			_	5 //// ///	Mature			A (Inc.	Anus giutinosa, Cyperaceae, Ranunculus sp., Mynophyllum	Insects	
St Catho	rine's well 9	MS/WB Trench 11	20		200 111		-	-	-	-		5111111	Wature			Touridwood)	sp., Detaid sp., I funds sp.	1130013	
ot. oatrie	Posthole	group [1080]																	
	1 Ostrible	group [1000]		T			1	1		1				In	ron coating				1
											Poaceae Cyperaceae Sambucus sp			vi	rivianite staining				
	1155	114500 51 10	80 3			90%, C, F	-	-	-	A*	Lamiaceae. Asteraceae	Trace	Mature	- P	Poor	A***	C - Chenopodiaceae	Moll-t, Moll-f	Р
											Poaceae (seeds, stems, roots), tuber,								
											Cyperaceae, Rumex sp., Papaver sp.,								
1048	1156	114500_52	9			F	-	-	-	A**	Ranunculus sp., Lamiaceae, indet.	1 ml	Mature	- E	air	A (inc. wood)	C - Chenopodiaceae	Moll-t, Moll-f	P, C14
											Cyperaceae, Poaceae (stems, seeds),			P	Poor, iron				
1055	1058	114500_11	10)		E, F	-	-	-	A*	indet bud and seeds	1 ml	Mature	C	oating	A*	B - Chenopodiaceae, Cardueae	Moll-t, Moll-f	Р
4055	4050	111500 10	10			- -					Cyperaceae, Poaceae (seeds, roots,	41	Mature			A +++	A - Chenopodiaceae, Asteraceae, Polygonaceae, Apiaceae,	NA-11 6 NA-11 4	P
1055	1059 Fraiser	114500_12	10			E, F	-	-	-	A	stems), Lamaceae, indet.	1 [[1]	wature	P	2001	А	Caryophyllaceae, <i>Betula</i> sp.,		٢
	Enclosure	e group [1127]		-			1	1		1		1					At Character contract Chananadiaceae Combusiaea	Inconto (nuno	
																	R - Characeae ouspores, Chenopoulaceae, Sambucus sp., Retula sp. Poa/Phleum Lyconsidae Luncus sp. Rumey	cases) Moll-f Moll-	
1142	1143	114500 32	10			FF	-	-	_	в	Poa/Phleum Poaceae stems + root	1 ml	Mature	Sab		A**	sp. Brassicaceae Lamiaceae	t	
						.,_											A* - Sambucus sp., Chenopodiaceae, Poaceae spikelet.	•	
																A*** (inc.	Betula sp., Characeae oospores, Ranunculus sp.,		
1146	1147	114500_33	10)		F, E	-	-	-	А	Poaceae stems and roots, Poa/Phleum	Trace	Mature	- E	air	wood)	Mercuralis sp., Lamiaceae	Moll-f, Moll-t	C14
	Enclosur	e group [1128]																	
																A*** (inc.	A** - Juncus sp. (A**), Polygonaceae, Characeae oospores,		
1091	1092	114500_22 11	28 20)		E, F	-	-	-	В	Poaceae (seeds and stems)	<1 ml	Mature	- F	air	wood)	Ranunculus sp., Alisma sp., Poaceae (Poa/Phleum)	Insects (C)	
I							1	1		1						A** (inc	A - Juncus sp. (A), Chenopodiaceae, Polygonaceae,	1	1
1004	1003	114500 23 14	28 20			FF	1.	1.	_	1.		Trace	Mature			A (IIIC.	Ranunculus sp	Insects (C)	1
1004	1000	117000_20 11	20			., -	1	1		+		11000	mature				A*** - Linum usitatissimum seeds and cansules (A***)		1
		114500 18 11	28 40		25%	-	-	-	-	-	-					А	Persicaria sp., Polygonaceae, Carvophvllaceae		P, C14
							1	1		1						1	A*** - Linum usitatissimum seeds and capsules (A***),		1
1123	1124	114500_19 11	28 37		20%						<u> </u>					А	Persicaria sp., Rumex sp.	-	Р
	Enclosur	e group 71																	
			Τ	Т										F	air (possibly				
2923	2922	114502_700 CC	G71 40)		80%, B, F	-	-	-	В	Veronica sp., Poa/Phleum, indet	3 ml	Mature	- in	ntrusive)				
2931	2932	114502_701 CC	G71 40)		60%, A, F	-	-	-	-	-	15 ml	Mature						
2936	2935	114502_702 CC	671 40)		70%, A*, F	С	-	Inticeae	C	Prunus spinosa stone, Poa/Phleum	20 ml	Mature	- F	air				
	Enclosur	e group 72		-	1		1	r.		1		1	<u>г г</u>			1			1
							1	1	Hordeum vulgare (var. vulgare,	1					Poor (irco				1
2030	2038	114502 703 00	272 40			60% A* E	Δ	1.	Triticeae	C	Poaceae	2 ml	Mature						P
2000	2000	117302_103 00		-		JU /0, A , I	-	+	Hordeum vulgare (var vulgare		Sparganium erectum Poaceae	2 110	Mature	- 0					+
I							1	1	hexastichum), Triticum spelta/dicoccum	1	(Avena/Bromus, Lolium/Festuca), Rumex			н	leterogenous			1	1
2943	2942	114502_704 CC	672 40)		70%, A*, F	A*		Triticeae	С	sp.	2 ml	Mature	- (ii	iron coated)				P, C14
2949	2948	114502_705 CC	672 40)		80%, A, E, F	С	-	Triticum sp. (spelta/dicoccum), Triticeae	С	Poaceae (Bromus sp.)	1 ml	Mature	- P	Poor				
2951	2950	114502_706 CC	672 20)		50%, A, F	-	-	-	-	-	60 ml	Mature	-				Moll-t	
	Enclosur	e groups 73, 74, 75																	
													Mature +						
2960	2961	114502_708 CC	373 38	;		80%, A*, E, F	-	-	-	-	-	1 ml	roundwood						
0055	0055				0.001	_	1	1		1				_		Ι.	A*** - Persicaria spp., Chenopodiaceae, Polygonum sp.,,	M-III 6 (Diff	
2958	2959	114502_718 CC	5/4 30		30%	E					Denumentus en	C	Matur-	G	bood	А	Caryophyllaceae, Lamlaceae, Juncus sp. (C)	woll-t (Bithynia sp.)	Р
2956	295/	114502_707 CC	5/5 30	1		00%, A^, E	1 -		-	U U	rcanunculus sp.	TU MI	wature		all	1	1	IVIOII-T (A"^^), MOII-t	1

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			Group							С	harred						
Feature	Context	Sample Code		Vol (L)	Sub- sample	Bioturbation proxies	Grain	Chaff	Cereal Notes	Other	Other Notes	Charcoal > 4/2mm	Charcoal	Other	Preservation	Vegetative plant parts	Other
	Enclosur	e group 76															
											Potentilla sp., Poaceae (Lolium/Festuca,						
2829	2830	114502_712	CG76	30		80%, A, E, F	-	-	-	A	Poa/Phleum, stems and roots), Galium sp.	1 ml	Mature		Fair		
2997	2998	114502_709	CG76	26		90%, A**, E, F	-	-	-	-	-	1 ml	Mature		-		
													Mature +				
	2820	114502_710	CG76	28		80%, A**, E	-	-	-	-	-	20 ml	roundwood		-		
2999	2826	114502_711	CG76	30		90%, A*, E, F	-	-	-	-	-	Trace	Mature		-		
	Enclosur	e group 77															
											Arrhenatherum elatius ssp. bulbosum						
						50%, A***, E,					tuber, Poaceae (Lolium/Festuca, stems						
2822	2821	114502_714	CG77	30		F	-	-	-	В	and roots), Polygonum sp., Cyperaceae	1 ml	Mature		Poor		
						75%, A**, E, F											
2832	2831	114502_717	CG77	40		(A***)	-	-	-	-	-	2 ml	Mature		-		
											Poaceae, Potentilla sp., Ranunculus sp.,						
2994	2993	114502_716	CG77	28		80%, A**, E, F	-	-	-	В	Juncus sp., indets	2 ml	Mature		Fair		
											Poaceae, Ranunculus sp., Juncus sp.,	_					
2996	2995	114502_713	CG77	30		80%, A**, F	-	-	-	A	indets	Trace	Mature		Fair		
	Gullies																
																	A* - Chenc
																	oospores,
						80%, A, E, F				_	Rumex sp, Poa/Phleum, Poaceae stems					A*** (inc.	(seed and
1026	1027	114500_2	1159	40		(A**)	-	-	-	С	+ roots	5 ml	Mature		Fair	wood)	Indet
												_			_	A*** (mainly	C - Indet. s
1032	1033	114500_3	1160	40		90%, B, F, E,	-	-	-	-	-	Trace	Mature		Poor	roots)	Lycopsidae
										_	Poa/Phleum, Arrhenatherum elatius						A* - Chend
1082	1083	114500_5	1162	40		90%, A*, E, F	-	-	-	В	subsp. bulbosum, Ranunculus sp.	<1 ml	Mature	-	Fair	A***	Caryophylla
2992	2991	114502_715		25		90%, A**, F	-	-	-	-	-	Trace	Mature		-		
Bridlewa	y ditches						-										
I					1					1 -	Poaceae (Bromus sp.), Rumex sp.		Mature +				
5317	5318	114504_719		36		75%, B	С	-	Triticeae, Hordeum vulgare	В	Valerianella sp.	2 ml	roundwood		Poor		
5319	5321	114504_720	1	32	1	50%, C, I	-	-	-	С	Indet.	-	-	-	-		

Key: A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5; Bioturbation proxies: Roots (%), Uncharred seeds (scale of abundance), F = mycorrhyzal fungi sclerotia, E = earthworm eggs, I = insects; Sab = small animal bones, Moll-t = terrestrial molluscs, Moll-f = aquatic molluscs; Analysis: C = charcoal, P = plant, C14 = radiocarbon.

Waterlogged	Invertebrates (Insect, Molluscs, Crustaceans)	Analysis
	Moll-t (A**), Moll-t	
	IVIOII-I	
	Moll-f, Moll-t	
	Moll-f	
	·	·
	Moll-f (A***)	
	Moll-f	
	Moll-f	
	Moll-f	
enopodiaceae, Caryophyllaceae, Characeae s, <i>Ranunculus</i> sp., <i>Betula</i> sp., Apiaceae, Poaceae nd spikelet), Lamiaceae, <i>Carex</i> sp., Brassicaceae,	Insects, Moll-f, Moll-t	
t. seed, Caryophyllaceae, <i>Solanum</i> sp., <i>Betula</i> sp., dae	Moll-f	
enopodiaceae, Rumex sp., Betula sp,		
iyllaceae, Lamiaceae	-	
	Moll-t, Moll-t	
	T	
	Moll-t	

Appendix 4: monolith samples: sediment descriptions and subsamples taken

Location: [1013]	Palaeochannel	Monolith sa	mple: 7	Drawing: 1004		Site code: 1	14500
Depth	Context	Subamples	Sediment of	lescription	Interpret	tation	
0-0.45m	1014	3 pollen, 1 C14	5YR 2.5/1 the homogeneoc humified, f with frequen Clear lower Troels-Smit (see note below): Th4 As+ Nig.4 Str.0 Elas.1 Sicc.3 Lim.1	black silt loam. A bus, fairly ibrous sediment nt plant remains. boundary. h classification at end of table	Peat.		Peat formed in natural channel from accumulation of surrounding vegetation
0.45-0.53m	1021	-	5YR 2.5/2 brown sand homogenec banded with remains. SI boundary. Troels-Smit Gmin2 Ag2 Nig.3 Str.1 Elas.0 Sicc.3 Lim.2	dark reddish y silt loam. Fairly us and weakly n moderate plant harp wavy lower h classification: Th+ Dlig+	Low environm to decompc plant ma	energy nent leading partial osition of terial.	Low energy deposition of sediment from surrounding area
0.53-0.95m	1002	-	Mottled loa sparse pa Fairly hom patches o increasing o patches organics/pe material (2 large wedge 0.67-0.77m wood frag 0.95m. Wea 0.79m. Troels-Smit Gmin3 Gma Nig.1 Str.2 Elas.0 Sicc.0	amy sand with tches of clay. nogeneous with f iron staining down profile and of at/humified %), including a e-shaped area at and a large ment at 0.90- akly laminated at h classification: aj+ Ag1 As+	Geology. Mottles staining a of ru activity. organic demonst levels of over fri material.	and iron are indicative edoximorphic Presence of inclusions rates varying water activity able parent	Geology

Location: Palae	ochannel	Monolith sam	ple: 582	Site Code: 114502			
Depth	Context	Interpre	tation				
0.15-1.515m	7802	8 pollen, 2 C14	10YR 2/1 loam. A d fairly homoy containing remains i fragments sparse Patches sediment ap the profile mixed but laminated 0.74m. compaction a smooth boundary. Troels-Smit Th3 Tlig+ G Nig.4 Str.1 Elas.0 Sicc.3 Lim.2	black silty clay ark, humic and geneous deposit frequent organic including large of wood, with iron staining. of sandier opear throughout generally well with a weakly band at 0.64- Increasing in down profile to abrupt lower h classification: smin1 Ag+	Peat. The layers of the e events, patches laminate from s areas lower e large fra organic suggestii energy. periods turbidity of water and long of torp indicated redoxym concentr iron.	intercalated lemonstrate nergy of with of d sand surrounding showing nergy and agments of material ng higher This shows of varying – episodes movement ger periods idity, also I by the orphic ations of	Peat formed from deposits of surrounding vegetation and fluctuating water levels within natural channel
1.515-1.575m	7803	-	10YR 3/1 silty clay. I unit/context fine pores, visible a organic incl Troels-Smit Ag1 As3 Nig.1 Str.0 Elas.0 Sicc.3	very dark grey Darker at top of with 0.5% very no laminations and moderate usions. h classification:	Natural deposit.	alluvial	Fill of palaeochannel

Key to Appendix 4. Tables. Troels-Smith (1955) classification: Argilla steatodes (As), Argilla granosa (Ag), Grana minora (Gmin), Grana majora (Gmaj) - 0=absence of, 4=maximum; Nigror (Nig.), Stratificatio (Str.), Elasticitas (Elas.), Siccitas (Sicc.), Limes superior (Lim.); Nig. 0=white, 4=black; Str. 0=homogeneous, 4=strong laminations; Elas. 0=clay, 4=peat, Sicc. 0=water, 4=dry; Lim. 0=>1cm, 1=<1cm and >2mm, 2=<2mm and >1mm, 3=<1mm and >0.5mm, 4=<0.5mm.

Appendix 5: OASIS data collection form

OASIS ID: wessexar1-269267

Project details	
Project name	Rossington Inland Port, Phase 2 Doncaster, South Yorkshire
Short description of the project	Wessex Archaeology undertook an archaeological strip, map and sample excavation, evaluation trenching and targeted watching briefs on c. 125 ha of land to the south-west of Rossington and east of Wadworth, South Yorkshire. This investigation focused on geophysical anomalies and cropmarks. The work was carried out in advance of the Rossington Inland Port development (Phase 2) This investigation confirmed the presence of a field system, trackways and associated enclosed areas of occupation and/or settlement. Material culture recovered during the work is predominantly of Late Iron Age/Romano-British date, with a small number of earlier prehistoric and post-Roman items. It is recommended that the project archive resulting from the excavation be deposited with Doncaster Museum.
Project dates	Start: 19-09-2016 End: 07-07-2017
Previous/future work	Yes / Not known
Any associated project reference codes	114500 - Contracting Unit No.
Any associated project reference codes	09/00190/OUTA CONDITION 13 - Planning Application No.
Any associated project reference codes	wessexar1-274546 - OASIS form ID
Type of project	Recording project
Site status	None
Current Land use	Cultivated Land 4 - Character Undetermined
Monument type	DITCHED ENCLOSURE Uncertain
Monument type	MORTUARY ENCLOSURE Uncertain
Monument type	RING DITCH Uncertain
Monument type	TRACKWAY Uncertain
Monument type	BOUNDARY DITCH Uncertain
Monument type	SETTLEMENT Roman
Monument type	PIT Roman
Monument type	ROUNDHOUSE Roman
Monument type	DITCH Iron Age
Monument type	CROP DRYER Roman
Monument type	KILN Roman
Significant Finds	ANIMAL BONE Roman
Significant Finds	FIRED CLAY Roman



Project location

Country	England
Site location	SOUTH YORKSHIRE DONCASTER ROSSINGTON Rossington Inland Port, Phase 2
Postcode	DN11 0PU
Study area	150 Hectares
Site coordinates	SK 59130 97450 53.470207220408 -1.109109891714 53 28 12 N 001 06 32 W Point
Lat/Long Datum	Unknown
Height OD / Depth	Min: 3m Max: 13m

Project creators

Name of Organisation	Wessex Archaeology
Project brief originator	SYAS
Project design originator	CgMS Consulting Ltd
Project director/manager	Andrew Norton
Project supervisor	Martina Tenzer
Type of sponsor/funding body	Developer
Name of	Buckingham



sponsor/funding body

Project archives

Physical Archive recipient	Doncaster Museum and Art Gallery		
Physical Contents	"Ceramics","Environmental","Glass","Human Bones","Worked stone/lithics","Animal Bones"		
Digital Archive recipient	Doncaster Museum and Art Gallery		
Digital Contents	"Survey"		
Digital Media available	"Database","Images raster / digital photography","Text"		
Paper Archive recipient	Doncaster Museum and Art Gallery		
Paper Contents	"Stratigraphic"		
Paper Media available	"Aerial Photograph","Context sheet","Diary","Drawing","Map","Photograph","Plan","Report","Section","Survey ","Unpublished Text"		
Proiect			
bibliography 1			
Publication type	Grey literature (unpublished document/manuscript)		
Title	Rossington Inland Port, Phase 2, Doncaster, South Yorkshire. Post-excavation assessment and updated project design		
Author(s)/Editor(s)	Phil Weston		
Other bibliographic details	114503.1		
Date	2018		
Issuer or publisher	Wessex Archaeology		
Place of issue or publication	Sheffield		
Description	c. 150 page A4 comb bound report with colour plates and figures		
Entered by	Patrick Daniel (p.daniel@wessexarch.co.uk)		
Entered on	8 May 2018		



Appendix 6: Copy of evaluation report



Rossington Inland Port Phase 2 Doncaster, South Yorkshire

Summary Archaeological Evaluation Report

Prepared for: CgMs Consulting Sherwood House Sherwood Avenue Newark Nottinghamshire NG24 1QQ

Prepared by: Wessex Archaeology Unit R6 Riverside Block Sheaf Bank Business Park Prospect Road Sheffield S2 3EN

www.wessexarch.co.uk

February 2017

114501.03



Quality Assurance

Project Code	114501	Accession Code	ТВА	Client Ref.	CH/9419/P201
Planning Application Ref.	09/00190/OUTA CONDITION 13	Ordnance Survey (OS) national grid reference (NGR)	459000, 39750	0	

Version	Status*	Prepared by	Checked and Approved By	Approver's Signature	Date
v01	I	PW	APN	Stop	15/02/2017
File:	\\sheffield	/wessex\Projects\1145	501_Reports\Sum	mary report\v01	
v02	E	APN	CS	C. Sural	16/02/2017
File:	\\sheffield\wessex\Projects\114501_Reports\Summary report\v02				
v03	E	APN	CS	C. Surl	22/02/2017
File:	\\sheffiel	d\wessex\Projects\1	14501_Reports [\]	Summary report\v03	1

* I = Internal Draft; E = External Draft; F = Final

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Rossington Inland Port Phase 2 Doncaster, South Yorkshire

Summary Archaeological Evaluation Report

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Rossington Inland Port Phase 2 Doncaster, South Yorkshire

Summary Archaeological Evaluation Report

1 INTRODUCTION

1.1 Project background

- 1.1.1 Wessex Archaeology was commissioned by CgMs Consulting (hereafter 'the Client') to carry out a programme of archaeological evaluation trenching in advance of Phase 2 of the Rossington Inland Port development. The northernmost trenches were excavated in advance of a proposed pipeline and have been reported separately (Wessex Archaeology 2017).
- 1.1.2 This report summarises the results of 103 trenches excavated in advance of the extension of a distribution area/inland port to the south of Junction 3 of the M18 (centred on NGR 459000 397500). The purpose of this report is to enable CgMs and South Yorkshire Archaeology Services (SYAS) to determine the location of proposed mitigation areas. Initially 105 trenches were proposed but six trenches are currently inaccessible and four additional trenches were requested by SYAS to investigate anomalies.
- 1.1.3 The historical and archaeological background to the work, and the aims, objectives and methodology can be found in the Written Scheme of Investigation (WSI; Wessex Archaeology 2016). The WSI conformed to Wessex Archaeology standards and industry best practice; its format and content are based on current guidance of the Chartered Institute for Archaeologists and Historic England (CIfA 2014a and b, Historic England 2015).

1.2 Site location and topography

- 1.2.1 The Site lies 3.5 km to the west of the town of Rossington and 4.5 km south of Doncaster, South Yorkshire. The Site occupies a combined area of *c*. 132 ha of agricultural land of which *c*. 100 ha is proposed for development.
- 1.2.2 The southern part of the Site is bounded to the east by the River Torne, to the north by St Catherine's Well Stream, to the south by Carr Bank and to the west it straddles the East Coast Mainline. The Site is largely flat, lying at around 6-7 m above Ordnance Datum (aOD). The landscape is characterised by linear drainage channels, occasional stands of trees and small copses.
- 1.2.3 The geology of the Site comprises pockets of peat and alluvial and river terrace deposits over mudstone, siltstone and sandstone; Pennine Upper Coal Measures and Roxby Formation Mudstone (http://maps.bgs.ac.uk).

2



2 ARCHAEOLOGICAL RESULTS

2.1 General stratigraphy

2.1.1 A common deposit sequence was broadly recorded across the Site. The natural substrate varied from a mid-orange sandy clay in the north-east to orange sand in the north-west and south. The natural substrate was either directly overlain by a dark brown topsoil or by a presumed relic ploughsoil below the existing topsoil.

2.2 Wetland deposits

- 2.2.1 Spreads of degraded peat and/or paleochannels have been recorded within trenches 1a, 2a, 8, 5, 10, 11, 22, 24, 31, 32-34, 75-76 and 78. These areas are indicative of a previous wetland environment and broadly correspond with anomalies associated with wetland deposits identified on the geophysical survey of the Site.
- 2.2.2 Environmental samples have been taken from a representative sample of these deposits and will be processed to evaluate the preservation and potential of the deposits.

2.3 Trenches 1-15 and 1A

- 2.3.1 Trenches 1-11 were located at the north-west corner of the Site (Figure 1). Trenches 2, 5, 6, and 9-11 were archaeologically negative although palaeochannels and pockets of peat were identified, reflecting waterlogged conditions in the past. Trenches 12-14 on the eastern side of the railway were also archaeologically sterile.
- 2.3.2 The remaining trenches were focused on a recti-linear field system apparent as geophysical anomalies. These trenches encountered remains comprising boundary ditches up to 2 m in depth and 0.8m deep. Evidence for recutting was apparent in the majority of excavated sections. The finds assemblage recovered consisted solely of animal bone.
- 2.3.3 Trench 15 was focused on a geophysical anomaly representing a curvi-linear feature. Excavation revealed a ditch 1.7 m wide and 0.9 m deep and a substantial assemblage of Romano-British pottery was recovered from the feature. Subsequent machine stripping around this feature has confirmed the existence of a ring gully.
- 2.3.4 Several other gullies and pit-like features were identified and a highly worn sherd of samian was recovered, along with a sherd of 19th century cream ware. The location of these rather ephemeral features close to the level crossing and access points to three fields suggests a possibility that it represented vehicular rutting and displaced finds from truncated features.
- 2.3.5 Trench 1A was excavated at the request of SYAS to investigate the continuation of a trackway but no corresponding ditches were revealed.

2.4 Trenches 16-36

- 2.4.1 Trenches 16-36 were located in the north-east of the Site to the north of a drainage ditch (Figures 1-2). Trench 16 identified a boundary ditch apparent on O.S. mapping and Trenches 17-20 could not be excavated due to the presence of a soil storage bund.
- 2.4.2 Trench 23 was archaeologically negative.
- 2.4.3 Trenches 21, 22 and 24-26 were targeted on elements of a small enclosure, apparent as geophysical anomalies, and located on a small raised area. Trenches 22 and 26 were



archaeologically negative but elements of the enclosure were identified in the remaining trenches. The remains consisted of boundary ditches up to 2 m in width and 0.7 m in depth; a small pit was also identified in Trench 25. No finds were recovered during the excavation of the features. Geophysical anomalies in the southern part of Trench 24 were seen to be a large modern machine-cut rubbish pit.

- 2.4.4 Trenches 27-32 were located to investigate elements of, and the extent of, a potential trackway with associated field boundary ditches. Trenches 27, 31 and 32 were archaeologically negative.
- 2.4.5 Trench 28 identified four ditches consisting of two, east-west aligned, parallel features that defined the trackway. The trackway ditches were substantial features up to 3 m in width and 0.8 m deep. The remaining ditches were perpendicularly appended to the trackway to the north and south. These features were equally substantial measuring up to 3.4 m in width and 0.7 m deep. Evidence of recutting was apparent in two of the ditches. The ditch appended to the northern trackway ditch was further investigated in Trench 29 where again evidence of recutting was noted.
- 2.4.6 Trench 30 identified two ditches; one that mirrored a boundary apparent on O.S. mapping, whilst the other likely represented a ditch appended to the southern trackway ditch. No finds were recovered from Trenches 27-32.
- 2.4.7 Trenches 33 to 36 were located at the north-eastern limits of the Site and were archaeologically negative.

2.5 Trenches 37-46

- 2.5.1 Trenches 37 to 46 were located in the centre of the Site to the west of the railway (Figures 3 and 5). Trenches 37 and 38 have not yet been excavated due to access issues.
- 2.5.2 Trenches 39 to 46 were focused on an enclosure apparent as geophysical anomalies. Trench 39 was archaeologically negative. The enclosure ditches investigated in Trenches 40, 41 and 43-45 were in a good state of preservation and were up to 3 m in width and 1.7 m deep. A substantial assemblage of pottery was recovered; the assemblage was predominated by grey ware but local shell tempered sherds were also identified as was samian ware. The samian included sherds decorated with a fantastic beast and a 'Pan'-like figure engaged in a sexual act, and it is likely that enclosure formed part of a settlement site.
- 2.5.3 Trenches 41 and 42 were placed to investigate the interior of the enclosure and potential geophysical discrete anomalies. Thirty-five features were identified consisting of a shallow ditch/gully, a large pit, four shallow pits or scrapes and 29 pits/postholes. The ditch/gully in Trench 41 was aligned north-south and presumably served as an internal division of the enclosure. Its northern terminus feathered out short of the northern ditch of the enclosure suggesting truncation by the plough.
- 2.5.4 The large rectangular pit (2.4 m x 1.8 m x 0.65 m deep) contained four fills, which produced a small assemblage of animal bone and occasional burnt stone. The remaining pits and postholes varied between 0.25 m and 1.0 m in diameter and between 0.2 m and 0.45 m deep. Only one of the features, pit/posthole 4263, produced finds, which consisted of a rim sherd from a large shell-tempered vessel.



2.5.5 The archaeological remains encountered and the finds assemblage recovered from these trenches clearly indicate that the enclosure was, at least for some part of its currency, a focus for occupation and settlement.

2.6 Trenches 47-79 and 2A-4A

- 2.6.1 Trenches 47 to 79 were located across the central part of the Site, and aimed to investigate elements of, and the extent of, trackways and field boundaries apparent as geophysical anomalies and likely part of the wider Romano-British agricultural landscape (Figures 3 and 5).
- 2.6.2 Trenches 53, 54, 58-60, 63-66, 68 and 70 to 79 were archaeologically negative whilst Trench 51 identified a boundary ditch apparent on O.S. mapping.
- 2.6.3 Trenches 49 and 50 investigated trackway ditches whilst the remaining trenches revealed elements of the associated field system. These features were generally less well preserved than those of the enclosure to the west (Trenches 39-46) and the enclosure and trackways to the north; with the most substantial ditch being no more than 1.0 m wide and 0.4 m deep. No finds were recovered from any of the features which largely define the limits of fields associated with the adjacent assumed settlement.
- 2.6.4 Trenches 2A, 3A and 4A were excavated at the request of SYAS to investigate potential palaeochannels and an area of metal detecting finds. A shallow hollow coincided with the palaeochannel in 2A, an undated ditch was recorded in 3A and a ditch in 4A is of modern date.

2.7 Trenches 80-97

- 2.7.1 Trenches 80 to 97 were located to the south-west corner of Site and were located to investigate elements of, and the extent of, trackways and field boundaries (Figure 5).
- 2.7.2 Trenches 82-85, 87, 89, 91, 93 and 95-97 were archaeologically negative.
- 2.7.3 Trenches 80 and 81 identified field boundary ditches, apparent as geophysical anomalies, up to 1.2 m wide and 0.4 m deep. No finds were recovered.
- 2.7.4 Trench 88 identified two parallel ditches consistent with an east-west aligned trackway apparent as geophysical anomalies. The ditches measured up to 1.7 m in width and 0.6 m in depth and contained animal bone. The same trackway was not apparent in Trench 86 to the west and further excavation will take place to extend Trench 86 and clean the trench sections.
- 2.7.5 Trench 92 identified three ditches and two intercutting pits. The ditches were up to 2 m in width, 0.75 m in depth and contained a moderate assemblage of Romano-British grey ware pottery. One pit was only partially revealed in the edge of the trench, whilst the second pit had visible dimensions of 2.5 m by 1.2 m+ and 0.45 m deep. A large assemblage of Romano-British grey ware pottery was recovered from the pit as was samian ware and ceramic building material. The north-easternmost ditch was further investigated in Trench 90 to the south-east where samian ware was also recovered. It is feasible that the double ditches defined a settlement area or trackways leading from a settlement, but no evidence for any internal features survives.





2.8 Trenches 98-105

2.8.1 Trenches 98-105 were located in the southern central and south-eastern part of the Site and except Trench 99 were all archaeologically sterile; a ditch was revealed in Trench 99 from which a greyware rim sherd was recovered (Figures 4 and 5).

3 DISCUSSION

3.1 General

- 3.1.1 The trench evaluation supports the results of the geophysical survey with revealed features mostly corresponding with geophysical anomalies.
- 3.1.2 The lower lying eastern part of the Site is devoid of archaeological remains. An extension of the late Iron Age brickwork enclosures/field system, seen throughout recent work at Rossington, has been recorded throughout the central and western parts of the Site.
- 3.1.3 A focus of settlement has been identified at the eastern extents of cropmarks targeted by Trenches 41-46 in the central western part of the Site. The revealed deep enclosure ditches contained large amounts of Romano-British pottery.
- 3.1.4 A second focus of activity was located in the area of Trench 92, where a concentration of Romano-British pottery and pits were revealed. Double ditched features may represent trackways or more likely an enclosure around settlement or settlement related activity that has since been ploughed away, such as that recently seen at FARRRS (Wessex Archaeology 2017b).
- 3.1.5 The finds rich ditch in Trench 15 appears to form part of a ring gully with an associated enclosure located around Trench 24. This enclosure was devoid of finds and may represent stock control. A trackway defined by two intermittent ditches to the south appears to lead towards the settlement at Trenches 40-46.

3.2 Conclusions

- 3.2.1 The archaeological evaluation has been generally successful in meeting its aims and objectives. The Site is occupied by a late Iron Age field system that presumably continued into the Romano-British period, with foci of later settlement located to the north of Carr Lane in Trenches 40-46 and to the north of Daw Lane at Trench 15. Associated activity was also identified to the south-east within Trench 92.
- 3.2.2 A full report detailing the results of the work and artefactual/environmental remains will follow in due course.

4 STORAGE AND CURATION

4.1 Museum

4.1.1 It is recommended that the project archive resulting from the excavation be deposited with Doncaster Museum. The Museum has agreed in principle to accept the project archive on completion of the project, under an accession code yet to be determined.

4.2 **Preparation of archive**

4.2.1 The complete Site archive, which will include paper records, photographic records, graphics, artefacts, ecofacts and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by Doncaster



Museum, and in general following nationally recommended guidelines (SMA 1995; ClfA 2014c; Brown 2011; ADS 2013).

- 4.2.2 All archive elements will be marked with the site/accession code, and a full index will be prepared. The physical archive comprises the following:
 - one airtight plastic boxes of ecofacts, ordered by material type;
 - one file of paper records & A4 graphics.

4.3 Discard policy

- 4.3.1 Wessex Archaeology follows the guidelines set out in Selection, Retention and Dispersal (SMA 1993), which allows for the discard of selected artefact and ecofact categories which are not considered to warrant any future analysis.
- 4.3.2 The discard of environmental remains and samples follows nationally recommended guidelines (SMA 1993; 1995; English Heritage 2011).

4.4 Security copy

4.4.1 In line with current best practice (eg, Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.



5 REFERENCES

5.1 Bibliography

- ADS 2013 Caring for Digital Data in Archaeology: a guide to good practice. Archaeology Data Service & Digital Antiquity Guides to Good Practice
- Brown, D H 2011 Archaeological archives; a guide to best practice in creation, compilation, transfer and curation. Archaeological Archives Forum (revised edition)
- ClfA 2014a Standard and Guidance for Archaeological Field Evaluation. Reading, Chartered Institute for Archaeologists
- ClfA 2014b Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials. Reading, Chartered Institute for Archaeologists
- ClfA 2014c Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives. Reading. Chartered Institute for Archaeologists
- English Heritage 2011 Environmental Archaeology; a guide to theory and practice of methods, from sampling and recovery to post-excavation. Swindon, Centre for Archaeology Guidelines
- Historic England 2015 Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide. Swindon, Centre for Archaeology Guidelines
- SMA 1993 Selection, Retention and Dispersal of Archaeological Collections. Society of Museum Archaeologists
- SMA 1995 Towards an Accessible Archaeological Archive. Society of Museum Archaeologists
- Wessex Archaeology 2016 Rossington Inland Port Phase 2, Doncaster, South Yorkshire, Written Scheme of Investigation for Archaeological Works, unpubl rep. 114501.01
- Wessex Archaeology 2017a Rossington Inland Port 33KV Cable Route, Doncaster, South Yorkshire, Archaeological Evaluation Report, unpubl rep. 114501.02
- Wessex Archaeology 2017b Finningley and Rossington Regeneration Route Scheme (FARRRS), Doncaster, South Yorkshire. Archaeological Archive Report, unpubl rep. 84457.02

5.2 Online sources

British Geological Survey 2017 Geology of Britain Viewer (accessed 25/01/2017). http://mapapps.bgs.ac.uk/geologyofbritain/home.html



Site plan 1, Trenches 1-30 and 1a



Site plan 2, Trenches 27-36



Site plan 3, Trenches 37-39, 47-51, 55-69, 71-72 and 2a



Site plan 4, Trenches 68-72, 74, 78-79, 4a and 98-105



Site plan 5, Trenches 40-46, 52-54, 3a and 80-99





Site showing archaeology, geology and cropmarks



SMS areas 1 and 4 and trench 7



Figure 4



SMS area 2 sections






SMS area 7 and trench 62



SMS areas 8, 9 and 10 and trench 30



SMS area 11 plan



SMS area 12 plan - part 1





SMS area 12 plan - part 2



SMS area 13 plan







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SMS area 13 sections





SMS area 14



SMS areas 16 and 17 and trench 50





SMS area 20







SMS areas 26 and 27



SMS area 28 plan - part 1



SMS area 28 plan - part 2









Plan of St Catherine's Well watching brief area and adjacent land to north and south





Bridleway watching brief area and trenches 39-46



Plate 1: Ring ditch CG14, view from the east



Plate 2: Ring ditch CG15, view from the south-west

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Plate 3: Stripping SMS13 with ditch CG34 in the foreground, view from the south-west



Plate 4: Ditches CG40 and CG41, gully 2275 and posthole 2504, view from the west

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Plate 5: Ditch CG62, section 5125, view from the south-west



Plate 6: Ditch CG62, section 2630, view from north-east

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Plate 7: Crop dryer CG65, view from the south-west



Plate 8: Crop dryer CG65, view from the north-east

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Plate 9: Intercutting kiln/oven bases 5284, 5287, 5290 and 5300, view from the west



Plate 10: Ditch CG62 and kiln/oven base 2565, view from south-west

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Plate 11: Aerial view of enclosures CG1080 and CG1127 (north at right of page)



Plate 12: Aerial view of enclosure ditch CG1128

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