

Cudworth and West Green Bypass, Cudworth South Yorkshire

Volume 1

Archaeological Evaluation and Excavation

Summary

Sixty-eight evaluation trenches and three areas of open excavation were undertaken along the route of the proposed Cudworth and West Green Bypass in Barnsley, South Yorkshire. The majority of trenches contained either no archaeology or evidence of post-medieval field boundaries and furrows. At the northern end of the corridor a number of Romano-British enclosure ditches and pits were present, a single feature producing the majority of pottery recovered with a date range from the early 2nd century to the early or mid-3rd century AD. A single Roman coin Septimius Severus struck in AD 200-20 was also found. Survival of carbonised organics and animal bone was poor. The results from the Cudworth and West Green Bypass excavations are important in evaluating the wider Romano-British landscape and should be viewed against settlement evidence from archaeological interventions at nearby High Street, Shafton and the Shafton Bypass Coalfields Link Road.



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Report Information

Client: Barnsley Metropolitan Borough Council
Address: Barnsley, South Yorkshire, S70 2TA
Report Type: Archaeological Evaluation and Strip, Map and Record excavation
Location: Cudworth
County: South Yorkshire
Grid Reference: Linear SE 4001 1888 to SE 3690 0920
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Date of fieldwork: 27th October 2008 to 4th February 2009
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1. Introduction

Archaeological Services WYAS (ASWYAS) were commissioned by Barnsley Metropolitan Borough Council (BMBC) to undertake an archaeological evaluation consisting of trial trenching along the route of the proposed Cudworth and West Green Bypass. During the course of the archaeological works some areas were identified as not being amenable to trenching and the agreed approach was to implement a watching brief in the affected areas. Subsequent to the results of trial trenching, contingency excavation, and then excavation in mitigation of the impact of the road scheme, was undertaken in some areas. The fieldwork was undertaken between 27 October 2008 and 4 February 2009.

Site location, land use and topography

The proposed road corridor runs for a distance of approximately 3 km west of Cudworth, Barnsley, South Yorkshire (Fig. 1) along the eastern side of a shallow valley, at the base of which runs a tributary stream of the River Dearne. From Weet Shaw Lane (SE 3936 1038) on the eastern valley side, the road corridor is approximately 75 m Above Ordnance Datum (AOD), then rises to a maximum elevation of 81 m AOD, to the north of Royston Road (SE 3871 1022). The road corridor continues in an approximate northeast to southwest direction, mainly through agricultural land, to Burton Road (SE 3815 0879), south of Cudworth, where it drops to its lowest point at approximately 40 m AOD. The road corridor then continues in an approximate northwest direction, through land reclaimed from Wharncliffe Wood Moor colliery tip during the late 1970s, which involved the redistribution and spreading of colliery spoil over agricultural land to the east of Fish Dam Lane (SE 3690 0920) where the road corridor terminates at a height of approximately 53 m AOD (Fig. 2).

Soils and geology

The soils of the area belong to the Rivington 1 Association, described as ‘well drained coarse loamy soils over sandstone’ (SSEW 1983, 541f), and the Bardsey Association, described as: ‘slowly permeable seasonally waterlogged loamy over clayey and fine silt soils over soft rock, some well drained coarse loamy soils over harder rock’ (SSEW 1983, 551d).

The drift geology of the area consists of Holocene alluvial silt and clay, while the solid geology consists of Mexborough or Royston Rock and Oaks Rock coal seams, with sandstone and grits of the Upper Carboniferous Middle Coal Measures (BGS 1993).

Archaeological and Historical Background

Prior to investigations along the route of the proposed Cudworth and West Green Bypass a desk-based assessment was undertaken by ASWYAS in May 2001 (Berg and Keith). Much of the following section derives from this research, along with a project design produced prior to the evaluation (ASWYAS 2008).

Prehistoric Periods

Evidence for prehistoric activity within the general area is represented by flint finds. Mesolithic-type flints comprising untrimmed flakes, flint fragments and nodules, have been found at various times and places in the vicinity of Cudworth, though the precise find spots are unrecorded. A possible leaf-shaped arrow head of Neolithic date was found at Monk Bretton in 1969.

Late Iron Age and Romano-British periods

Geophysics and a subsequent archaeological evaluation at High Street, Shafton, in 1999, confirmed the presence of prehistoric and Roman activity, including ditches, probable trackways, and a sub-rectangular enclosure. A roundhouse was situated to the west of the enclosure and fragments of 1st and 2nd-century AD pottery were recovered, suggesting use during the Romano-British period (Howell 1999; Burgess 2001). To the south of Shafton Two Gates, a sub-circular feature along with probable field systems were identified by cropmarks. Subsequent archaeological investigations between 1999 and 2001 revealed the presence of an in-filled sub-circular enclosure, with internal divisions of possible late Iron Age or early Romano-British date (Keith 2000; Webb 2000; Martin 2001).

The sites at Shafton probably formed part of a wider landscape of prehistoric sites along with an extensive area of activity on higher ground, *c.* 1 to 2.5 km to the east of Shafton, in the vicinity of Brierley and South Kirkby (Keith 2000). Evidence for Romano-British activity in the general area also includes a coin of Nero (AD 54-68), found on a cricket pitch at Monk Bretton in 1969.

Medieval period

The proposed bypass route stands within an historical setting with nearby settlements of medieval origin or earlier. The place-name 'Carlton', to the east of the proposed route, is recorded as *Karlatun* in the Domesday survey of 1086. The place-name probably derived from the personal name Karl, and Old English tun, meaning enclosure or farmstead, thus 'farmsteads of the churls of ordinary freemen' (Smith 1961, 276). Similarly the personal name Cuoā, or Cuda, may relate to the present place-name of Cudworth. Monk Bretton Priory, south of the proposed route, was established by Clunaic Monks in *c.* 1155, and became an independent priory of Benedictine Monks in *c.* 1279 (Jennings 1999). Lands granted to the monks by Adam Fitz Swein in the 12th century included Lundwood and Carlton making the monastery the second largest monastery in South Yorkshire (Hey 1979).

It is believed that a chapel of Monk Bretton Priory and a retiring house for the Prior, stood on the site of the former St Helen's Farm, and the adjacent Crevesford School, at Carlton. The first known mention of St Helen's chapel is in the registers of Walter de Gray, the Archbishop of York (1215-1255). A well situated on this site was believed to be a Holy Well visited by pilgrims (Hunter 1831). Recent research and excavations of the well site did not determine the well's date of origin (Keith and Martin 2001).

Mineral resources such as iron and coal were exploited by the monks, including the working or leasing of a mine at Cudworth (Page 1974). A water mill was also founded by the monks prior to 1200 at Grange Lane, Monk Bretton (Bayliss 1995), and a possible fishpond at Fish Dam Lane. In 1538 the priory was dissolved and the property dispersed to a number of landowners (Hey 1979).

Post-medieval and modern periods

The linen industry developed in Barnsley from the mid 18th century and reached its peak in the 1870s (Alliott 1999). Despite the eventual decline of the industry, small-scale manufacture continued until 1957 when the final linen mill closed (Taylor 1993).

Linen yarn required bleaching, which involved steeping the woven cloth or yarn in solutions and spreading it out to dry. For this purpose bleach works were established in and around Barnsley, including sites at Monk Bretton and Cudworth (Taylor 1993). Present remains of the Midland Bleach works, at Cudworth, now the site of Bleach Croft Farm, include two outhouses, reservoirs, and a chimney. The documented history relating to this site is held at the John Goodchild Archive, Wakefield.

Coal reserves in the Barnsley area were exploited throughout the 19th century; Monk Bretton Colliery opened in 1870, Carlton Colliery 1879, and Ferrymoor in 1917. The local population increased with the development of the coal industry; Cudworth grew from 1607 inhabitants in 1891, to 9377 inhabitants by 1931 (Young 1996).

The growth of industry, particularly coal, created the need for improved transport. The construction of the Barnsley Canal commenced in 1793 and the Midland Railway by 1836. A railway station at Cudworth, now dismantled, temporarily served Barnsley until the line was later extended into the town. Further development of the railway network commenced in the 1880s (Barnett 1984). The majority of the transport network, the railways and canal, are now redundant and public footpaths, such as the Trans Pennine Way, cross over part of the reclaimed land.

Archaeological investigations within the proposed road corridor

Previous archaeological works undertaken on the scheme consist of:

- Desk-Based Assessment, including AP investigation (Berg and Keith 2001)
- Geophysical Survey (Schofield and Webb 2003)
- Building Appraisal of the Midland Bleach Works (Swann 2004)
- Field Survey (Harrison 2005)

The desk-based assessment (Berg and Keith 2001) concluded that significant archaeological features might survive below ground that are not evident on the existing aerial photographic record for the area. Consequently, a programme evaluation consisting of geophysical survey along the eastern section of the road line between SE 3828 0897 and SE 3888 1034 was

recommended, along with targeted trenching and watching briefs during soil stripping, in order to determine requirements for further archaeological works, mitigating the impact of the construction of the road. It was also recommended that the remains of the Midland Bleach Works should be surveyed and fully recorded.

The geophysical survey (Schofield and Webb 2003) identified numerous magnetic anomalies along all sections of the proposed road corridor surveyed, though most were identified as ridge and furrow, or the result of modern agricultural regimes. However, at the northern end of the proposed bypass probable Romano-British field system ditches were identified, as were anomalies suggesting quarrying for the small-scale extraction of coal.

The building appraisal (Swann 2004) recorded several buildings associated with the former Bleach works including a Grade II listed chimney, stable block, warehouse and dwelling, along with associated reservoirs.

The field survey (Harrison 2005) recorded ridge and furrow and two ‘hollow ways’ running across the proposed road corridor. This report also included logs from bore hole sampling undertaken by Geotechnical Services (Northern) Ltd. Bore hole data from archaeologically sensitive sections of the road corridor identified the location of the in-filled Aire and Calder canal, though deposits which may have indicated the presence of medieval fishponds near Fish Dam Way were not identified. The bore holes showed a varying depth of modern colliery waste overlying the former ground surface, and that unless this material was removed by groundwork during the construction of the road, archaeological remains, should they exist, were likely to be preserved. The borehole data also indicated that there was in excess of 3 m of colliery waste overlying the former Aire and Calder Navigation Canal.

2 Project objectives

The general aim of the archaeological evaluation was to gather sufficient information to establish the presence/absence, character, extent, state of preservation and date of any archaeological remains within the proposed road corridor.

The specific aims of the evaluation were to:

- locate and characterise any surviving below-ground archaeological remains relating to possible Iron Age or Romano-British activity
- locate and characterise any surviving below-ground archaeological remains relating to the medieval and post-medieval land-usage of the area
- provide an assessment of the potential and significance of any identified archaeological remains in a local, regional and (if relevant) national context
- provide information on which a strategy for further evaluation and/or mitigation, if required, can be developed, and
- to produce a comprehensive site archive and report.

3 Methodology

All archaeological investigations were undertaken in accordance with recognised professional standards issued by the Institute for Archaeologists (1994, 1995 and 2008) and English Heritage (1991 and 2002) and following ASWYAS methodologies (ASWYAS 2005). All works were overseen by South Yorkshire Archaeological Services (SYAS).

In total 68 evaluation trenches were machine excavated. Many were placed to investigate cropmarks and/or geophysical anomalies, with the remainder placed to provide good representative coverage of the remainder of the proposed road corridor. The trenches were located using a GPS system and machined with either a 360° excavator or a JCB, fitted with a toothless ditching bucket. Topsoil and subsoils were removed in level spits until the natural drift geological layer or first archaeological horizon was reached.

Area	Trenches	Contexts	Description of archaeological remains
A	1	001-003	1m overburden
B	2-4	100-113	Furrows
C	5-9	200-218	Furrows. TR 5: Boundary ditch; (203)
D	10-24	300-320	TR 10-17: Watching brief on soil strip TR 18-24: Furrows and tree bole
E	25-33	400-444	Furrows. TR 33: Modern rubble
F	34-49	500-577	Furrows. Tree boles. TR 37-39: Possible boundary ditches; (512) (517) (522)
G	50-59	600-644	TR 40-43: Ditches; (527) (529) (533) (551) (566) (570) TR 52: Medieval/Post Medieval field boundary ditch; (636) TR 54: Ditch; (623) TR 56,57: Gully running through both trenches; (613) (617) TR 58: Gully; (618)
H	60-75	700-815	Furrows. Tree boles. Land drains. TR 61: Curvilinear feature (721) TR 62: Linear features (715) (717) TR 66-68: Ditches; (765) (754) (738) (746) (748) (763) (765) TR 70,71: Ditches; (777) (797) (800) (803) TR 71: Posthole; (805) TR 72: Ditch terminus (771)
I	78	784-788	TR 78: Ditch (786)

Table 1. Context number allocation

When archaeological remains were encountered, SYAS requested those areas to be further investigated, either as part of the contingency for the evaluation or as stand-alone excavation areas. The total area excavated beyond the trenching was 3350 m².

Evaluation trenches that contained archaeological remains and all the excavation areas were planned by hand at a scale of 1:20 or 1:50, as appropriate. All hand-excavated sections were drawn at a scale of 1:10 or 1:20, as appropriate. A photographic record was generated consisting of black and white prints, colour slides and digital photographs. All surveying was carried out using a survey grade Trimble RTK GPS 5800 and points fixed to the National Grid.

An inventory of the primary archive is presented in Appendix 1. A table of results for the evaluation trenches is presented in Appendix 2 with a full concordance of contexts, finds and

environmental samples presented in Appendix 3. The specification and full project design is reproduced in Appendix 4.

4 Evaluation Results

Detailed results from the evaluation trenches are presented as a gazetteer in Appendix 2 and are shown on figures 3-7 and summarised in Table 2 below, along with context number allocation.

Area	Trench	Context number allocation	Archaeological Remains
A	1	001-099	1m overburden, Blank
B	2	100-199	Furrows
	3		Furrows
	4		Blank
C	5	200-299	Boundary ditch (203), no finds
	6		Blank
	7		Blank
	8		Furrow
	9		Furrow
D	10	300-399	Watching Brief on soil strip
	11		Watching Brief on soil strip
	12		Watching Brief on soil strip
	13		Watching Brief on soil strip
	14		Watching Brief on soil strip
	15		Watching Brief on soil strip
	16		Watching Brief on soil strip
	17		Watching Brief on soil strip
	18		Tree bole
	19		Blank
	20		Blank
	21		Blank
	22		Blank
	23		Blank
	24		Furrows
E	25	400-499	Blank
	26		Furrows
	27		Furrows
	28		Furrows
	29		Furrows
	30		Furrows
	31		Furrows
	32		Furrows
	33		Blank, modern rubble
F	34	500-599	Blank
	35		Blank
	36		Blank
	37		Ditch, Possible boundary (512), no finds
	38		Ditch, Possible boundary (522), no finds
	39		Ditch, Possible boundary (517), no finds

Area	Trench	Context number allocation	Archaeological Remains
	40		2 x Ditches (566 and 570) no finds
	41		2 x Ditches (527 and 529) no finds
	42		Ditch (551), no finds
	43		Ditch (533), no finds
	44		Burnt tree bole (?), no finds
	45		2 x tree boles?
	46		Furrow, no finds
	47		Furrow
	48		Furrow
	49		Furrow
G	50	600-699	Blank
	51		Blank
	52		Ditch (med /post-med pot) Field boundary (636)
	53		Blank
	54		Ditch (623) No finds
	55		Blank
	56		Gully (613) same as in Tr 57 (617) No finds
	57		Gully (617) same as in Tr 56 (613) No finds
	58		Gully (618) No finds
	59		Blank
H	60	700-799 815?	4 x land drains / Blank
	61		Curvilinear, land drains
	62		2 x linear features
	63		2 x tree boles
	64		Furrow (724)
	65		2 x ditches
	66		Ditches, possible discrete features
	67		2 x Ditches (746 and 748)
	68		2 x Ditches (763 and 765) = (748 and 746)in Tr 67
	69		Furrows
	70		Ditch (777)
	71		Ditches x3 (797, 800, 803), Post-hole x1 (805)
	72		Ditch terminus (771)
	73		Blank
	74		Furrows and tree boles
	75		Blank
I	76	784-788	Area I Excavation
	77		Area I Excavation
	78		Area I Excavation, ditch (786)
	79		Area I Excavation
F		5000-5999	Contingency Area F, ditches 5010, 5004 and 5006
H		7000-7999	Open Area H Excavation
I		8000-8999	Open Area I Excavation

Table 2. Summary of results from the evaluation trenches

5 Excavation Results

Where a feature has been given more than one context number due to multiple interventions being made, it has been awarded a Context Group number. In these cases the prefix CG applies, e.g. ditches (CG1) and (CG2) etc. Table 3 below contains a listing of all the Context Groups and their constituent cuts and fills.

Context group	Sections/Sheets	Area	All cuts	All Fills
Ditch 1	24/13	Area F	566, 5004	565, 5005
Ditch 2	17/05, 20/11, 53/26	Area F Tr 42 & 43	533, 551, 5002, 5010	534, 535, 552, 553, 554, 5003, 5011, 5012
Ditch 3	45/24, 46/24, 71/35, 121/51, 126/50	Area H Tr 66	738, 741, 7005, 7077, 7086	735, 736, 737, 740, 7004, 7078, 7085
Ditch 4	70/35, 71/35	Area H Tr 66	7001, 7003	7000, 7002
Ditch 5	98/46, 116/48, 118/51	N of Area H	7045, 7070, 7074	7044, 7069, 7073
Ditch 6	59/22, 102/47, 112/49, 118/51	N of Area H	763, 7053, 7066, 7072	764, 7052, 7065, 7071
Ditch 7	54/31, 114/49	S of Area H	748, 7068	747, 7067
Pit 8	47/24, 48/24	Area H Tr 66	750, 754	749, 753

Table 3. Context Group numbers

Area F

This open excavation was approximately 400 m² in area and incorporated Evaluation trenches 40, 42 and 43 and the areas between them (Figs 5 and 9). Within it was revealed two ditches (CG1, CG2) and a probable third ditch (5006).

The first ditch (CG1) was located in the southeast corner of the open area. It consisted of an initial north-south section of ditch within Trench 40 that on extension of Area F was observed for a total length of 4.50 m with a possible northern terminal end. Ditch CG1 had a maximum width of 2.50 m and a maximum depth of 0.40 m (Fig. 13 – section 24). The ditch sat at the top of a step slope, 63.09 m Above Ordnance Datum (AOD). Single fills (565, 5005) were observed in all interventions in to this ditch.

The second ditch (CG2) was aligned north-south with a length of 28.00 m length and a southern terminal end. At its largest point, observed in Trench 42 (Fig. 13 – section 20), a width of 2.80 m and a depth of 0.75 m was recorded, at its smallest point, the southern terminal end, it had a width of 0.50 m and a depth of 0.35 m (Fig. 13 – section 53). The line of the cut ran across the slope so that the base of the cut towards the north was at a height of 60.69 m AOD rising to 62.48 m AOD at the southern terminal end. The steep edges of this terminal end indicate it is a true terminus and not the product of truncation through modern ploughing. Multiple fills were observed in all interventions along this ditch. All earlier fills consisted of fine silt-sands and indicate a slow natural accumulation of sediment. The last fill (554) from the intervention in Trench 42 did though consist of approximately 0.10 m depth of

charcoal-laden silts and sands (Fig. 13 - section 20). No finds were found within this or any other ditch fill within CG1 or CG2.

A stratigraphically uncertain relationship existed between ditches CG1 and CG2, and a third possible ditch (5006). Ditch 5006 was observed running approximately east-west for 3.50 m from the eastern edge of excavation, and petering out to nothing to the west. It had a maximum width of 2.50 m and depth of 0.35 m and potential two fills – though the later fill (5008) was similar to the local subsoil. Ditch CG2 was observed interacting with the northern edge of Ditch 5006, whereas the southern edge interacted with Ditch CG1. Both CG1 and CG2 were believed to have truncated Ditch 5006.

Ditches CG1 and CG2 themselves appear to form a potential boundary ditch (Fig. 5) with the two terminal ends constituting an opening within it. No discrete pit or posthole features were identified near these two terminal ends and the lack of pottery finds means no date can be attributed to them.

Area H

This open excavation was in total approximately 1900 m² and excavated in two parts. The initial open area consisted of a 20 m by 20 m (400 m²) expansion centred on Evaluation Trench 66 to investigate the extent and form of the ditches observed terminating within it (Figs 7 and 10). The second part consisted of opening up the area between Evaluation Trenches 66, 67 and 68 to investigate the extent and form of the linear features observed in trenches 67 and 68 and any potential relationship to those ditches in the initial expansion of Trench 66. In total, nine ditches and eighteen different discrete features were recorded, as were thirteen other features that were subsequently interpreted as hedgerows, plough furrows or tree boles.

Ditches

Ditch 7042 was located on the western edge of the open-area. Orientated east-west it consisted of a short length of ditch (length 1.25 m; width 0.89 m; depth 0.17 m) resulting in a terminal end to the west. Its single fill (7041) contained a single coin struck in the earlier 3rd century AD (Small Find 1).

Ditch CG3 was first identified within Evaluation Trench 66 as a short length of terminal-end ditch. After running northwest-southeast for 3.70 m it turned to the northeast for approximately 2.00 m before turning back to the northwest and continuing for approximately 15.00 m, where it terminated in an interaction with Pit 7088. Along its length, its width averaged 1.43 m and its depth 0.56 m. The function of this ditch is unknown but the hand excavated section within Trench 66 (Fig. 14 – section 45) revealed three fills with form and orientation that indicate distinct infilling from the southeast. The inference is that a source of material is available to the southeast possible in the form of a bank. No finds were recovered from any fills.

Ditch 7012 (length 10.50 m; width 1.25 m; depth 0.60 m) was located in the south of the open-area orientated approximately northeast-southwest. A terminal-end was located to the northeast, which was truncated to the southwest by Pit 7014. The function of this linear is unknown and no finds were recovered from its fills (7013).

Ditch CG5 (length 25.50 m) was located in the north of the area, orientated east-west and corresponded to a linear feature identified by geophysical survey (Fig. 7). CG5 clearly cut CG6 observed both in plan and during hand excavation. A terminal-end was located at the eastern end but the decreasing values in width (1.17 m to 0.59 m) and depth (0.41 m to 0 m) support the inference that the eastern aspect of this feature has been truncated, possibly through ploughing (Fig. 14 - sections 98 and 116). It is possible that ditch CG5 is in some way related to the linear feature 7051 as it runs at a 90 degree tangent near the eastern terminus, though feature 7051 has been interpreted as a hedgerow. Ditch CG5 produced no finds.

Ditch CG6 (length 24.50 m; width 1.58 – 1.78 m; depth 0.40 m; Fig. 14 – sections 102 and 112) was observed entering from the northern edge of the open-area, orientated northwest-southeast and terminating at its southeast end. It was probably associated with Ditch CG7 (length 10.25 m; width 1.58 – 1.80 m; depth 0.30 m; Fig. 14 – section 114) that sat on the same alignment but 11.00 m to the southeast. Even though these two ditches did not physically join, the decreasing depths at their ‘terminal-ends’ suggest that the aspect between the two had been truncated, possibly by ploughing. No finds were recovered from either ditch. The two features between CG6 and CG7 (7058 and 7060) have been tentatively interpreted as pits but are more likely to be tree boles.

Ditch 746 (length 9.50 m; width 1.27 m; depth 0.27 m; Fig. 14 – section 95) sat parallel to Ditch CG7 but 5.75 m to the northeast. Sitting on the same alignment (northwest-southeast) but 33.00 m to the northwest was Ditch 7049 (length 4.50 m; width 0.93 m; depth 0.32 m). The hand-excavated section (Fig. 14 – section 55) revealed a possible re-cut 7047 (width 0.95 m; depth 0.16 m). Between these two ditch termini lay two discrete features of similar width but varying depth. Feature 765 (length 4.25 m; width 2.00 m; depth 0.46 m; Fig. 15 – section 60) was located 9.50 m to the southeast of Ditch 7049. Feature 7062 (length 3.65 m; width 2.00 m, depth 0.24 m; Fig. 15 – section 110) was located 7.00 m to the northwest of Ditch 746. Despite the eroded nature of both feature 765 and 7049, their alignment with ditches 746 and 7062 suggest they formed a boundary of some description. The presence of ditches CG6 and 7 parallel to the southwest strengthen this inference.

Ditch 7056 was located on the eastern edge of the open-area. Orientated northwest-southeast it consisted of a short length of ditch (length 3.90 m; width 1.93 m; depth 0.58 m) resulting in a terminal end to the northwest. Within the hand-excavated section a single re-cut (7092) was observed (length 3.00+ m; width 1.02 m; depth 0.42 m). No finds were recovered from either feature.

Discrete features

A possible posthole 7033 (length 0.32 m; width 0.20 m; depth 0.32 m) was observed 4.50 m to the northeast of Ditch 7042, cutting a probable natural feature 7031.

The feature CG8 (length 2.25 m; width 1.04 m; depth 0.3 m) was a possible pit that appeared to respect the boundary of the natural feature 7011. No finds were recovered from this pit and its function is unclear.

Pit 7021 (length 2.25 m; width 1.62 m; depth 0.43 m) was located 1.00 m east of Ditch CG3. No finds were recovered from this pit and its function is unclear.

Pit 7014 (length 1.25 m; width 1.20 m; depth 0.63 m) was observed cutting the southwest edge of the terminal end of Ditch 7012. It may therefore be associated with disuse activity of this ditch but any specific interpretation is not forthcoming. No finds were recovered.

Feature CG4 is a possible gully (length 3.00 m; width 0.46 m; depth 0.35 m) that cut in to the eastern edge of CG3. Its function is unclear and no finds were recovered from its fills.

Pit 7009 (length 1.4 m; width 0.83 m; depth 0.31 m) is located 1.00m east of ditch CG3. Its function is unclear and no finds were recovered from its fill. Further it has an unclear relationship with the possible natural feature 7007.

Pit 7023 (length 3.90 m; width 1.58 m; depth 0.49 m) is a large feature located 4.25 m north of Ditch 7012. Within its primary fill (7022) a single piece of pottery was recovered, broadly dated from the mid 2nd to 4th century AD. This piece was heavily eroded along its borders suggesting a long transport history and was therefore not originally deposited in this feature. It could suggest that this feature is younger than the pottery would imply.

Feature 7026 (length 6.00+ m; width 0.81+ m; depth 0.41 m) is a long oblong located to the east of Pit 7023. Its amorphous edges to the north and east suggest it might be a plough furrow or natural feature. No finds were recovered from its fills.

Pit 7088 (length 2.35 m; width 2.10 m; depth 0.30 m) is located at the northwestern end of Ditch CG3 with an unclear relationship between the two. No finds were recovered and its function is unclear.

Pits 7082 (length 0.82 m; width 0.80 m; depth 0.24 m) and 7084 (length 0.70 m; width 0.64 m; depth 0.22 m) were intercutting features located 2.00 m to the south of Ditch CG5, with Pit 7082, observed during hand excavation, as being the later feature. The interpretation as 'pits' for both these features is tentative as they may equally be natural features. No finds were recovered.

Pit 7075 (length 2.80 m; width 1.48 m; depth 0.28 m) is a shallow feature cutting the natural feature 7079. Its function is unknown and no finds were recovered from its fill.

Pits 7058 (length 1.80 m; width 1.80 m; depth 0.38 m) and 7060 (length 2.00 m; width 1.23 m; depth 0.30 m) were located 1.50 m to the southeast of Ditch CG6. The interpretation though as pits for both these features is tentative as they may also be natural features. No finds were recovered from either feature.

Feature 765 (length 4.25 m; width 2.00 m; depth 0.46 m; Fig. 15 – section 60) was located 9.50 m to the southeast of Ditch 7049. Feature 7062 (length 3.65 m; width 2.00 m, depth 0.24 m; Fig. 15 – section 110) was located 7.00 m to the northwest of Ditch 746. Both may have been part of an intermittent boundary ditch.

Pit 7093 (length 2.20 m; width 1.20 m; depth 0.50 m) was located 2.00 m to the northeast of Ditch CG3. No finds were recovered and its function is unclear.

Non-archaeological features.

These features include plough furrows, tree boles and geological features. Initially they were thought to be archaeological features but were subsequently reinterpreted in the field as not (Fig. 10).

Feature 7039 (length 4.50 m; width 1.98 m; depth 0.23 m) ran northwest-southeast along the eastern edge of the area and is probably a hedgerow. Features 7040 (length 5.00 m; width 1.11 m; depth 0.20 m) and 7043 (length 5.0 m; width 0.80 m; depth 0.30 m) ran parallel to one another, 1.50 m to the southeast and on the same northwest-southeast alignment as 7039. Taken together features 7039, 7040 and 7043 may represent a past field boundary.

Features 7011 (length 1.60+ m; width 1.45 m; depth 0.55 m) and 7035 (length 5.00+ m; width 0.85 m; depth 0.60 m) were initially interpreted as ditches. Subsequently, based on the incredible firm nature of the sand fill and its mixed amorphous colouration, they were both reinterpreted as geological features.

The following features were interpreted as hedgerows or of an arborous nature: 756 hedge (length 9.20 m; width 1.27 m; depth 0.27 m); 7017 tree bole (length 2.00 m; width 1.05 m; depth 0.22 m); 7028 hedge (length 1.00+ m; width 1.20 m; depth 0.36 m); 7031 hedge (length 1.40 m; width 0.94 m; depth 0.44 m); 7051 hedge (length 15.00+ m; width 0.85 m; depth 0.25 m); 7064 hedge (length 1.10+ m; width 1.10 m; depth 0.39 m); 7079 hedge (length 12.00 m; width 1.40 m; depth 0.35 m). Feature 7031 was observed truncating post-hole 7033 and feature 7051, and though not interacting with Ditch CG5, it does on plan form a right angle to it.

Feature 7007 (length 0.70 m; width 0.65 m; depth 0.55 m) is a natural occurrence, possibly an animal burrow, between Pit 7004 and Ditch CG3.

Area I

Originally three evaluation trenches (76, 77 and 79) were excavated but on identification of the linear features observed during geophysical surveying, and in light of their potential

width and depth, the maximum available extent of the road corridor was opened for full excavation (Figs 8 and 12). The total excavated area came to approximately 1100 m². Within it was revealed six distinct ditches (8004, 8013, 8015, 8020, 8027, 8030), two small postholes (8017, 8018) and a single large pit (8040).

Ditch 8009 (Fig 12a) was located to the far west of Area I and consisted of a brief length (3.5 m) of ditch orientated approximately north-south with a width of 1.60 m and a depth of 1.22 m. From the hand-excavated section (Fig. 15 – section 131; Plate 1) it is evident that a later sub-circular pit (8006), containing charcoal-laden clay-sand (8005), was cut in to the uppermost layer (Fill 8007). This pit had maximum dimensions of 0.6 m by 0.25 m and a depth of 0.18 m. Subsequently a recut (8004) for the ditch was excavated that cut through this pit fill (8005), following the same alignment as the original cut (8009), with a width of 1.60 m and a depth of 0.71 m. Pottery finds from the primary fill (8008) of Ditch 8009 indicate a mid 2nd-century AD date.

Ditch 8020 was located approximately 10 m to the east of Ditch 8009 (Fig 12a). This feature extended for 7.5 m across Area I on an approximate east-west alignment. Its southern edge had been truncated by a modern pipe trench making its observable width approximately 2.0 m with a depth of 1.28 m. Five distinct fills were observed within the hand-excavated section (Fig. 15 – section 149; Plate 2) with no evidence for any recut. Pottery finds were collected from all fills with abundant and large fragments of vessel rim and base coming particularly from fills 8023 and 8025. The finds from the primary fill (8021) indicate a late 1st to early 2nd-century AD date whilst those from fills 8023 and 8025 indicate dates of late 2nd to mid 3rd and mid 2nd to 4th centuries respectively. The lack of bone remains, and the heavily decayed nature of the only animal bone from fill 8023, attests to the highly acidic nature of the sediments.

When ditches 8009/8004 and 8020 are viewed in the context of the geophysical survey (Figs 8 and 12) they appear to form the western and southern arms, respectively, of a large enclosure. The eastern arm is clearly observed heading north across the entire survey corridor for a length of 30.00 m. The southern arm is observed heading east for 30.00 m before turning to the north and travelling for another 10.00 m to the edge of the survey corridor. An extrapolation of the southern continuation of Ditch 8009 and the western continuation of Ditch 8020 put their probable intersection under the present day Weet Shaw Lane.

Ditches 8013 and 8015 were located approximately 30.00 m west of Ditch 8020 and 45.00 m east of ditches 8027 and 8030 (Fig. 12b). Ditch 8013 was observed on an approximate north-south alignment extending for a length of 12.50 m with a width of 3.52 m and a depth of 1.20 m (Fig. 15 – section 137; Plate 3). Ditch 8015 was observed coming off on a tangent from the eastern edge of Ditch 8013 and continuing in an approximate eastern direction for 9.00 m with a width of 1.78 m and a depth of 0.99 m (Fig. 15 – section 139). The hand-excavated section at the point of intersection (Fig. 15 – section 138) revealed that Ditch 8015 was the earlier feature and was partially in-filled (8014) before being cut by Ditch 8013. All fills in

both ditches exhibited large amounts of cobble-sized (64-256 mm) sandstone indicating a high erosion of the natural as part of the accumulation process. The upper fill of both ditches was a shared fill (8010) in that it in-fills and covers both features. Pottery from this fill indicate a date after *c.*AD 225.

The geophysical survey indicates that Ditch 8015 most likely continues to the east for a distance of 10.00 m before turning north and continuing for another 17.00 m out of the survey corridor. Though the gradiometer readings are low, Ditch 8013 appears to continue north for a further 6.00 m before turning to the east and running for a further 35.00 m – interacting with the observed northern arm of Ditch 8015, approximately 18.00 m along its length – out of the survey corridor. A very slight northern continuation of Ditch 8013 can be seen continuing past its eastern turn (Fig. 8).

Post-hole 8017 was located between the northern extent of excavation on the western edge of Ditch 8013 (Fig. 12b). This feature was circular with a diameter of 0.48 m and a depth of 0.14 m. Its single fill (8016) contained abundant burnt stone and charcoal remains but no remains of a post or post-pipe.

Post-hole 8018 was located 0.25 m from the eastern edge of Ditch 8013 and 0.30 m from the northern edge of Ditch 8015, in the northern elbow of the intersection formed by the two ditches (Fig. 12b). Dimensions of 0.55 m by 0.45 m with a depth of 0.18 m (Fig. 15 – section 141) were recorded for this post-hole, which turned out to be an isolated discrete feature on the eastern side of Ditch 8013.

Pit 8040 was located 2.0 m east of Ditch 8013 with dimensions of 2.30 m by 1.80 m and a depth of 0.74 m (Fig. 12b). The step-sided nature of the cut (Fig. 15 – section 146) leads to an initial interpretation as a possible grave but no bone remains were encountered. A single piece of smithing slag from the middle fill (8038) is the evidence for limited ironworking.

Ditches 8027 and 8032 were located approximately 35.00 m from the eastern extent of Area I (Fig. 12c). Ditch 8032 was observed on an approximate east-west alignment extending for a length of 17.00 m with a width of 2.96 m and a depth of 1.04 m (Fig. 15 – section 142). Ditch 8027 was observed coming off on a tangent from the northern edge of Ditch 8032 and continuing in an approximate northern direction for 4.00 m with a minimum width of 2.50 m and a depth of 1.19 m (Fig. 15 – section 151). The hand-excavated section at the point of intersection (Fig. 15 – section 143) revealed that Ditch 8027 was the earlier feature and after being completely in-filled was cut by Ditch 8032. All fills in both ditches exhibited large amounts of cobble-sized (64-256 mm) sandstone indicating a high erosion of the natural as part of the accumulation process. The hand-excavated section within Ditch 8032 further revealed another cut (8030) on the southern edge (Fig. 15 – section 142). This cut is an earlier feature than Ditch 8032 and it, tentatively, may represent an earlier phase of ditch. Pottery finds were only recovered from the top fill (8036) of Ditch 8032 and are loosely dated to the mid to late second century.

The geophysical survey indicates that Ditch 8027 continues to the north for a distance of 28.00 m then continues out of the survey corridor. Ditch 8032 is observed continuing for 35.00 m to the east and to the west for 2.50 m before heading under the present Weet Shaw Lane.

6 Artefact Record

6.1 Romano-British Pottery by R.S. Leary with contribution from K. Hartley

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

A group of 99 sherds (1988g) of Romano-British pottery was examined. The group included a stamped mortarium of the early Antonine period with the remaining types indicating a chronological range from the early 2nd century to the early or mid-3rd century, with one sherd possibly of late date, in the late 3rd or 4th century.

Fabrics and forms

Amphora

Dr 20 Dressel 20 Amphora (Tomber and Dore 1998 BAT AM)

The globular-shaped Dressel 20 amphora with its short, thick, oval handles is the most commonly found amphora form imported into Roman Britain. They were made to transport olive oil produced in the southern Spanish Roman province of Baetica by the many estates in the valley of the River Guadalquivir and its tributaries between Seville and Cordoba and some 150 kiln sites are presently known (Peacock & Williams 1986, Class 25). The globular Dressel 20 form was made over a long period, from the reign of Claudius until shortly after the middle of the 3rd century AD.

Black burnished ware types

BB1 Black burnished ware category one, Dorset. BB1 DOR (Williams 1977, Tomber and Dore 1998)

RBB1 Rossington Bridge BB1. This is probably all locally made material, either from a kiln at Rossington Bridge or at Cantley (Buckland *et al.* 1980, 152), (Tomber and Dore 1998 ROS BB1).

Sherds of BB1 and RBB1 cannot always be reliably distinguished. Body sherds from jars with lattice burnish were identified. Rims of two jars both with splayed rims of late type were present (Gillam 1976, no. 8). These rim types occur on jars

with right-angled or obtuse lattice burnish on the body and the transition from acute to obtuse lattice burnish took place early in the third century, around AD 225 (Holbrook and Bidwell 1991, 96). At this time the Doncaster kilns had stopped making RBB1 wares and these vessels at least, with their dark grey to black colour, originate in Dorset rather than the local kilns.

Derbyshire ware

DBY Derbyshire ware (Tomber and Dore 1998 DER CO).

Although a Derbyshire-like ware was made at Rossington Bridge (Buckland *et al.* 2001, 69) this was in a red ware with abundant red ironstone unlike the fabric present here which compares well to Derbyshire ware from kilns near Belper, Derbyshire (Kay 1962). One jar was represented by base and lower body sherds.

C: calcareous fabrics

EYCT East Yorkshire calcite gritted ware (Tomber and Dore 1998, HUNT CG)

A very abraded body sherd was identified. This compared well with the late East Yorkshire calcite-gritted wares, although calcite-gritted fabrics of very similar character were also produced in the pre-Roman Iron Age. The later fabrics, Knapton and Huntcliff wares dated from the 3rd to late 4th / early 5th century; single body sherds cannot be narrowly dated.

G: coarse gritted fabrics

GTA8 Grey with brown margins. Fairly soft with bumpy feel and irregular fracture. Sparse, well-sorted, medium, sub-angular quartz and sparse-medium, ill-sorted coarse angular grey and brown argillaceous inclusions. Possibly related to G22. Similar to "Trent Valley" ware (Todd 1968) and identified as having local, PRIA antecedents by Buckland at Doncaster (Buckland and Magilton 1986 nos 17 and 149-152). Similar to a type made at the Flavian-Trajanic kiln at Dragonby (kiln 3, Rigby and Stead 1976 fig. 64 no. 4)

M: mortaria

M01 Mancetter-Hartshill mortaria. Fine-textured, cream fabric, varying from softish to very hard, sometimes with pink core; self-coloured or with a self-coloured slip. Inclusions usually moderate, smallish, transparent and translucent white and pinkish quartz with sparse opaque orange-brown and rarely blackish fragments; rarely white clay pellets (or re-fired pottery) (Tomber and Dore 1998 MAH WH).

Single vessel bearing a retrograde potter's stamp, and reading from the outside of the flange can be interpreted as MINOM, with retrograde N. The first M is only partially impressed, and the whole of the stamp is somewhat worn because the fabric is slightly soft. It is from one of the seven dies used by the early Antonine potter *Minomelus*. Another of his dies reads MINOM in the normal manner from left to right. Because of the letters involved it is easy to confuse these. Just enough alteration in bead and flange has occurred to show that this is the left-facing stamp. ('Right facing' and 'left facing' when applied to stamps indicates the relation of the stamp to the spout looking at the mortarium from the outside.)

R: reduced coarse wares

- GRB1 Grey ware with common-abundant, medium, well-sorted subrounded and subangular quartz. South Yorkshire grey ware.
- GRB2 Grey. Hard with slightly rough feel and finely irregular fracture. Moderate well-sorted, medium-sized, subangular quartz; sparse, ill-sorted, coarse to fine calcareous inclusions or vesicles – shell?; sparse, fine, rounded brown inclusions.
- GRB6 Grey ware. Very hard with granular feel and granular fracture. Abundant, well-sorted, subangular medium quartz. South Yorkshire grey ware.
- GRB17 A grey ware with orange-brown core and margins and grey surfaces, with moderate, well-sorted medium subangular and subrounded quartz. Probably a South Yorkshire grey ware.

All the grey wares could have been made at the Doncaster kilns although the single GRB2 sherd is somewhat unusual and may come from the Trent Valley where sparse shell inclusions are known in grey wares from kilns such as those at Torksey (Oswald 1937, Nottingham University Museum samples). The forms in the South Yorkshire grey wares comprised basal sherds from the large deep bowls (Buckland *et al.* 2001 type Hc-d) so common in that industry, copies of BB1 jars with acute lattice burnish and cupped-rim jars (Buckland *et al.* 2001 types Ea and Eb), flat-rim dish (Buckland *et al.* 2001 type Ca) and the rarer narrow-necked jar form (Buckland *et al.* 2001 type Gb). One very unusual thick walled and heavy based dish had a reeded rim. This may belong to the group identified by Buckland that was often pierced to form a colander (Buckland *et al.* 1980, type Ha) and was dated by him from the late second or early third to the fourth century.

TS: samian

Stratified groups

The majority of the assemblages of Romano-British pottery came from Area I with only one sherd from Area H, a GRB1 bodysherd from a wide-mouthed deep bowl (Buckland *et al.* 2001 type Hc-d) of a type made in this industry from around the mid-second century until the fourth century so allowing no chronological precision. This sherd came from the primary fill of Pit 7023.

In Area I the largest number of sherds was recovered from the fills of Ditch 8020, some 87 sherds (1788g.). A single sherd from the primary fill is from a GTA8 thick-walled vessel, with a double groove, such as a large storage jar or deep bowl. The fabric and form compare with vessels made in the Trent Valley and Humberside, specifically a vessel from kiln 3 at Dragonby dated to the late first to early second century (Rigby and Stead 1976, fig. 64 no. 4). This type of jar continued in circulation until around the mid-second century in Lincolnshire (Darling 1984, 86 and 89) but at Doncaster it occurred in late first to early second century groups (Buckland and Magilton 1986, 155 no. 17 and 172 nos 149-52). The upper fills of Ditch 8020 contained pottery types of the late second to early third centuries.

Fill 8022 included a GRB6 jar with an everted rim copying BB1 jars. These types were made in the mid/late second to early third century kilns at Rossington Bridge, Cantley and Blaxton. In fill 8023 the base and lower body of a deep bowl was found with the rim and neck of a narrow-necked jar, much of a cupped-rim jar and a good proportion of a dish, or possibly a lid in an unusual form, probably related to the colanders made at the South Yorkshire potteries in the late second or early third century until the fourth century. The deep bowl base and the narrow-necked jar are not closely datable forms although they belong within the mid-second to mid-fourth century date range. The cupped-rim jar form however seems to be a more closely datable form. Swan (2002) gives this type a date range in the late second to the mid-third century although Buckland suggested a longer life in mid-second to fourth century (Buckland and Dolby 1980, 21). However, more recent work has suggested the grey ware version of this form, although present from the late second century, was most common in the third century (Leary 2005). Although present in the Blaxton and the early Cantley kilns the cupped rim jar form is rare at the late kiln groups at Cantley, Branton and Goodison Boulevard (Annable 1960, Buckland 1976, Buckland and Magilton 2005). Derbyshire ware was also present in this fill.

The latest fills 8025 and 8026 included sherds from a late BB1 jar form with the more splayed everted rim form. This type dates from the third century and a date after c.AD 225 is accepted on the grounds of typology (Holbrook and Bidwell 1991, 96). A flat-rim bowl or dish in this layer is also from the late second to third century kilns at Doncaster such as those at Blaxton (Buckland and Dolby 1980). Possibly the latest sherd, a calcite-gritted bodysherd, came from fill 8026. This sherd compares better with the late Roman calcite-gritted wares from East Yorkshire, typically represented by Knapton jars in the third century and pre-Huntcliff and Huntcliff jars in the late third to fourth/early fifth centuries rather than pre-Roman Iron Age types from East Yorkshire. Precise dating is not possible on the basis of an abraded bodysherd but this piece may indicate later activity in the neighbourhood. Cross joins were noted between fills 8023, 8025 and 8026 and fills 8023 and 8024 suggesting the pottery in the late fills may have been deposited at one time, probably in the early to mid-third century. The lack of Dales ware favours an early end date before the mid-third century while the absence of late third to fourth century types such as the developed bead and flange bowls confirms this. The late calcite-gritted sherd is clearly a casual loss after domestic settlement had moved away from the vicinity.

Fill 8008, the primary fill of Ditch 8009 contained a sherd of mortarium bearing the stamp of *Minomelus*. A quantity of his mortaria was associated with a kiln at Hartshill and there is evidence that he was also active in the pottery-making area outside *Manduessedum* (Mancetter), both in Warwickshire (Hartley unpublished) and part of the same manufacturing complex. The fabric, trituration grit and rim-profile fit with manufacture in the Hartshill-Mancetter potteries and best fit with production within the period AD130-160. At least sixty-seven of his mortaria have now been recorded from the following occupation sites in England: Aldborough; Ambleside; Ashton, Northants; Birdoswald; Brough-on-Noe (2);

Carlisle; Coleshill (2); Corbridge (9); Catterick; Cudworth, S. Yorks; Dragonby; Droitwich; Fisherwick; The Fens (OS 53.175.100); Heronbridge; High Cross; Kingsholm, Glos; Leicester (13); Little Chester; *Margidunum*; Ribchester (2); Rocester; Rothley, nr. Leicester; Ryknieid Way/Watling St (crossing of); Sewell's Cave, Settle; Shangton, Leics; Shenstone; Stanwix; Wall; Wall Town Farm; Walton-le-Dale (2); Water Newton; Willington, Derbyshire; Wroxeter (9); and York? Six have been recorded from sites in Scotland from Bearsden; Inveresk; Mumrills; Newstead (2); and Rough Castle, and one from an uncertain site in Wales, possibly on Anglesey. The number of his mortaria in Antonine Scotland compared with those on Hadrian's Wall and on Pennine sites believed to have been abandoned when the Antonine Wall was built (Hartley 1972) point to activity mainly within the period AD140-160 and probably marginally earlier. It is believed that Bearsden was occupied for only a few years during the 150s.

Sherds from 8010, the tertiary fill of Ditch 8013, comprised a scrap from a Dressel 20 amphora, which originally contained Spanish olive oil, and grey ware sherds from jars copying BB1 jars with lattice burnish. Since these burnished lines crossed at an obtuse angle, a date after *c.*AD 225 may be suggested since it was around this time potters changed from decorating their jars with acute lattice burnish to obtuse lattice burnish. A sherd from Post-hole 8019 also suggests a similar date. This came from a BB1 jar with a splayed everted rim, a form associated with jars of this date with the obtuse lattice finish. A GRB4 bodysherd from Fill 8036 in 8032 is not closely datable but copies BB1 wares so is likely to date to the mid- to late second century when the local potters were producing BB1 and BB1 type wares.

The pottery assemblage indicates initial activity in the late first or early second century with occupation during the second century and the latest activity, perhaps with features falling into disuse and being used for disposal of domestic rubbish, falling in the second quarter of the third century. One sherd may belong to the fourth century.

Illustrated vessels (Fig. 16)

- 1* GRB1 narrow-necked jar with everted rim and groove outside upper body. 52g. RE 10%. 8023.
- 2* GRB17 cupped-rim jar. 162g. RE 40%. 8023.
- 3* GRB1 very thick walled shallow dish or lid with triangular rim, reeded on top of rim. 307g. RE 36%. 8023.
- 4* BB1 abraded sherd from splayed, everted rim jar. 25g. RE 1%. 8025.
- 5* GRB1 flat-rim dish. 52g. RE 10%. 8026.
- 6* BB1 splayed everted rim jar, sooted outside rim. 11g. RE 8%. 8019.

Taphonomy and sherd conditions

The pottery sherds were concentrated in the upper fills of 8020 suggesting this was ceramic debris deposited in the silted up hollow of a ditch no longer in use. The material included

reasonably large sherds (20g. average sherd weight) and, although abraded, was not excessively so suggesting that the collection of fresh debris, perhaps from a midden in a domestic area situated nearby, was being deposited on the margins of the settlement in defunct features. A similar system of rubbish disposal was found at Armthorpe (Leary 2008a).

Two BB1 jars were sooted outside the body and the neck and two grey ware jars were sooted outside the body and rim. One GRB17 jar had white deposits inside the body similar to limescale.

Functional groups and site status

The make up of the assemblage is typical of rural settlements in the region. The ratio of jars to bowls and dishes was 48:38 and the complete absence of drinking and pouring vessels such as cups, beakers and flagons suggests little desire to adopt Roman *mores* despite the single sherd of samian. The presence of traded wares such as amphora and BB1 ware, thought to be under official control, demonstrates that the inhabitants did have the wherewithal and/or access to purchase some Roman goods. In the immediate region, the group contrasts with the later assemblage from the settlement at Thurnscoe (Didsbury 2004) where Dales ware, developed flanged bowls and late samian copies were common, although it might be noted that the jar to bowl/dish ratio of 58:36 was not dissimilar (N.B. the published figures put wide-mouthed jars and deep bowls in the bowl/dish group rather than the jar group as this author). The Cudworth assemblage has rather more bowls and dishes than settlements in the Don Gorge and at Hemsworth (Table 4).

Pottery supply

The presence of imported fineware and amphora demonstrates some integration with the military supply network. The amphora may have arrived on the site empty of its original contents since such commodious vessels were highly valued and were frequently modified for further use (van der Werff 1987) such as storage vessels for dry goods. The single eroded samian sherd only tends to emphasise the scarcity of this tableware so valued by the Romans in Britain. Compared with other rural sites in West and South Yorkshire, the level of luxury items and tableware is low. At Normanton, for example, some 6% of the assemblage was made up of samian (Leary 2007b) while at Byram Park, Brotherton 7% of the ceramic assemblage by count was imported and 21% traded from outside the region (Leary 2008b). However, in a late second to third century group at Gunhills, Armthorpe (Leary 2008a, CD All pottery data, Area D wares), less than 1% in total was imported and only some 9% came from outside Yorkshire while at Hemsworth and on the Don Gorge sites, similar levels of imported wares were identified (Table 5).

The Mancetter-Hartshill mortarium and BB1 jars indicate some access to military trading networks since these traded goods from near Coventry and Dorset respectively are unlikely to

have arrived through the services of a passing peddler. The distribution of BB1 suggests the widespread movement of this ware was under the control of a military quartermaster and the procurator's office with secondary redistribution from *vici* or urban centres (Allen and Fulford 1996). The group from the fieldwalked sites in the Don Gorge had a very narrow range of wares with barely any BB1 ware while that at Hemsworth was somewhat more varied than the Cudworth group with more traded wares such as Ebor ware and Severn Valley ware, Dales ware and Crambeck ware, although some of these differences may be chronological since the assemblage at Hemsworth included later groups of the late third to fourth century. The presence of Derbyshire ware is notable at all three sites. Derbyshire ware occurred in small quantities at urban and military sites in Yorkshire such as Doncaster (Buckland and Magilton 1986, 175 no. 169), Templeborough, Ilkley and Slack (Gillam 1940) and at villa sites such as Stancil (Whiting 1939), predominantly in 2nd-century contexts, where dated. On rural sites it is generally uncommon – less than 1% at Gunhills, Armthorpe (Leary 2008a) and small amounts at Edlington Wood (Phillips 1973). Rather more was found at Hemsworth and in the Don Gorge (Table 5) suggesting this area might have closer links with the Derbyshire industries.

Vessels	Cudworth	Thurnscoe	Hemsworth	Don Gorge
amphora	*			0.3
bowl		12	2.2	1.7
bowl/dish	3		3.5	4.4
dish	30	24.2	7.2	2
cup/beaker			0.7	
jar	44	30	56.1	74.1
narrow-n jar	8		2.4	1.1
deep bowl	0	17.5	21.3	7.9
w-mouthed jar		10.1	4.6	3.9
storage jar				0.4
mortarium	9	4.4	1.4	2.4
lid			0.5	
Indet		1.5		

Table 4. Relative quantities of Roman vessels from the excavations compared with Thurnscoe (Didsbury 2004) and Hemsworth, using rim equivalent values, and the Don Gorge fieldwalking project, using sherd count values (Leary 2007a and 2009)

Fabric	No.	g	RE	Rel % no	Rel % g	Rel % RE	Hemsworth Rel % no	Hemsworth % g	Don Gorge rel % no
BB1	5	36.3	9	5	2	8	12.6	8.3	0.6
DBY	4	40.2		4	2	0	9.9	13	9.6
DR20	1	5.6		1	0	0	0.2	3	0.2
Dales							1.1	0.9	2.1
EYCT	2	10.8		2	1	0	0.8	0.4	1
Fine grey ware							0.3	0.1	0.5
GRB1	31	619.7	56	31	31	47	51.7	52.4	79.3
GRB17	26	220.4	40	26	11	33	0.7	0.7	
GRB2	1	9.1		1	0	0			
GRB4?	2	10.8		2	1	0			
GRB6	20	854.7	4	20	43	3	7	7.4	
Crambeck grey							0.4	0.3	0.2
GTA8G	1	40.3		1	2	0	4	7	0.1
Oxidised							0.8	0.6	1.1
Severn Valley							1.6	1.3	
Ebor							0.1	*	
Nene Valley									0.7
MH1	1	119.6	11	1	6	9	1	2	1
RBB/BB1	4	17.8		4	1	0	5.4	2	
TS	1	2.7		1	0	0	1.2	1.3	2.5

Table 5. Relative quantities of Roman wares from the excavations compared with Hemsworth and the Don Gorge fieldwalking project (Leary 2007a and 2009). * present at less than 0.1%

Feature	Context	Type	No.	g	RE	Date range
Pit 7023			1	17.7	0	
Ditch 8004	8003		1	2.7	0	
Ditch 8009	8008	Primary fill	1	119.6	11	AD 130-160
Ditch 8013	8010	3rd fill	6	37.8		E-M 3rd, after c. AD 225
PH 8018	8019		1	11.2	8	
Ditch 8020	8021	Primary fill	1	40.3		L 1st-E 2nd C.
Ditch 8020	8022	2nd fill	5	54.1	4	M/L 2nd-3rd C.
Ditch 8020	8023	3rd fill	49	948.3	86	L 2nd-M 3rd C.
Ditch 8020	8024	4th fill Ditch 8020	1	10.2		E-M 3rd, after c. AD 225

Ditch 8020	8025	5th fill Ditch 8020	25	623	1	M 2nd-4th C.
Ditch 8020	8026	5th fill Ditch 8020	6	112.3	10	M-L 2nd + one sherd probably 4th C.
Ditch 8032	8036	3rd fill of Ditch 8032	2	10.8	0	?M-L 2nd C.
Grand Total			99	1988	120	

Table 6: Catalogue of Roman pottery

6.2 Post-medieval pottery by C.G. Cumberpatch

The post-medieval pottery assemblage consists of six sherds weighing 30 g. The details are summarised in Table 7. Apart from one sherd from Area I (8026), all the pottery was from Trench 52.

Context	Type	No.	Wt	ENV	Part	Form	Decoration	Date range	Notes
8026	Brown Glazed Coarseware	1	8	1	Rim/flake	Bowl/pancheon	Brown glaze on rim	C18th - C19th	Internal surface missing
629	Brown Glazed Coarseware	1	7	1	BS/Flake	Bowl	Brown glaze int	C18th - C19th	Flaked int
629	Brown Glazed Coarseware	1	2	1	Base	Bowl/dish	Brown glaze int	C18th - C19th	
629	Redware	1	1	1	BS/Flake	?Bowl	Clear glaze int	C18th - EC19th	External surface missing
630	?Yellow ware	1	11	1	Handle	Handle vessel	Thin cream slip int & ext	C17th	Narrow strap handle; chipped and flaked
630	Brown Glazed Coarseware	1	1	1	BS/Flake	Bowl/dish	Brown glaze int	C18th - C19th	
	Total	6	30	6					

Table 7. Post-medieval pottery

Discussion

With the exception of a fragment of a handle from Context 630, the pottery was all of one type, Brown Glazed Coarseware. This is difficult to date, having been manufactured continuously from the 17th to the early 20th century. The characteristics of the sherds in question suggest a date range within the 18th to 19th centuries. The single exceptional sherd was part of the handle of a Yellow ware vessel. Such pottery was manufactured at Wrenthorpe, near Wakefield, from the later 15th century and into the 17th century. While a definite date is difficult to attribute to this sherd, a date within the 17th century seems most likely.

6.3 Clay Tobacco Pipe by Zoe L Horn

Two stem fragments of clay tobacco pipe were recovered from contexts 630 and 631. Both fragments have been catalogued in Table 8. Stem bores are traditionally measured using imperial drill bits (White 2004, 488), giving rise to the unusual choice of using a 64th of an inch scale for recording the measurements. In this case both stem bores have been measured using vernier callipers and are recorded to the nearest 64th of an inch.

Neither of the pipe stem fragments recovered has any markings or decoration, nor is their size sufficient to assist in assigning an accurate date of manufacture. Hence a broad date range of mid 17th to early 19th century is attributed although the median date for tobacco pipes with a 6/64th bore is 1700⁺ +/- 25 years (White 2004, Table 7.2). No further work on this assemblage is recommended.

Context	Bowl/Stem	Total	Bore/64	Markings	Date Range	Comments
630	Stem	1	6	None	M 17th – E 19th C	Too small for meaningful comment
631	Stem	1	6	None	17th – E 19th C	Too small for meaningful comment
Total		2				

Table 8. Clay pipe catalogue

6.4 Coins by Craig Barclay

A single Roman coin was of Septimius Severus recovered from Ditch CG3, Fill 7041.

Obv. [SEVERVS] AV[G PART MAX], laureate head right. Rev. [RESTITVTOR VRB]IS, Septimius standing left, holding patera in right hand over tripod altar, and spear in left.

The coin is counterfeit with base metal core. Prototype struck AD 200-201.

Ref. *RIC* 167. Context 7041; SF 1.

6.5 Industrial Residues by Jennifer Jones

Introduction

Industrial residues with a total weight of less than 70 g were recovered from three contexts (Table 9).

Methodology and examination

The material was examined visually and under x16 magnification. The aim of the examination was to characterise the residues and identify the industrial processes from which they originated. Classification was primarily based on morphology, density, colour and vesicularity. The weight and identifications were recorded (Table 9). Category criteria are based on the English Heritage Centre for Archaeology Guidelines on *Archaeometallurgy*

(Bayley *et al.*, 2001). In addition, EDXRF (energy dispersive X-ray fluorescence) analysis was undertaken.

Results

Area I Context 8038

This residue is part of a fragment of smithing slag, possibly broken from a larger piece, and derives from ironworking. The underside is uneven, as though formed in a hollow on a ground surface, and the top shows evidence of drip accumulation. The interior is quite dense and black with iron staining and some vesicularity throughout. The slag is the result of one episode of deposition.

Tr 52 Context 631

Two small pieces of fuel ash slag, grey/white/red in colour. The material is lightweight and has a very vesicular interior.

Area H Context 7041 <36>

One very small spheroid and one irregularly shaped flake of a dark, lustrous, once molten material. Under x16 magnification, both fragments can be seen to have multiple small airholes on their surfaces. The spheroid in particular resembles hammerscale, but neither piece is magnetic. EDXRF analysis puts them on the fuel-ash-slag spectrum, with iron and silica present, along with significant percentages of a range of earth elements including aluminium, calcium and potassium. Detected levels of iron are too high (33% and 44%) for true fuel ash, and the material may indeed therefore have been produced during some part of the ironworking process. Though, unusually, the pieces are not magnetic, an identification of hammerscale remains a possibility.

Discussion

Very slight evidence for ironworking on site is provided by the single piece of smithing slag, and the iron-rich 'fuel ash slag' or hammerscale. No evidence for processes involving other metals was found.

Bloom produced by the iron smelting process must be worked (hammered) at high temperatures by the smith to expel trapped slag, before it can be worked into objects. The expelled slag forms drips and pools around the smithing hearth, which solidify and would be periodically cleared away, and some may fall as droplets and flakes (hammerscale) around the smithing hearth.

Fuel ash slag is a variably coloured material, often grey/white, very lightweight and with a highly vesicular interior. It may be formed during combustion, either domestic or industrial, when the inorganic components of fuels react with silicates present in earth, stone or ceramic around the fire.

From the evidence examined, it would appear that ironworking was of very minor economic significance at the site.

Context	Area	Wt	ID	Notes	EDXRF
631	Tr 52	5g	Fuel ash slag	Lightweight, grey/white/red/vesicular	No
7041 <36>	H	<0.5g	Iron-rich fuel ash slag/hammerscale	Small spheroid, black lustrous, non-magnetic	Yes
7041 <36>	H	<0.5g	Iron-rich fuel ash slag/hammerscale	Flakes, black, lustrous, non-magnetic	Yes
8038	I	61g	Smithing slag	Uneven underside, drip accumulation on top, black, dense partly vesicular interior	Yes

Table 9. Industrial residues

7 Environmental Record

7.1 Carbonised plant macrofossils and charcoal by Diane Alldritt

A total of thirty-nine flots were examined for carbonised plant macrofossils and charcoal. Twenty-seven bags of charred material sorted from the retent portion of each sample were also examined for identifiable wood charcoal. Samples originated from various features, including a series of ditches and linear features and a number of pits and post-holes. Whilst some elements may have belonged to the wider Prehistoric landscape, it was thought some features were possibly medieval or Post-medieval in date.

Methodology

Bulk environmental samples were processed by ASWYAS using an Ankara-style water flotation system (French 1971). All flots were subsequently dried prior to examination using a low-powered binocular microscope. The majority of samples contained quite small amounts of charred material, typically from <2.5ml to 15ml only. Occasional samples were more abundant, particularly from the retent portions, and produced up to 100ml of material, most of which was wood charcoal. Modern root fragments were present in very small amounts from <2.5ml to 5ml together with earthworm egg capsules and occasional modern (non-carbonised) seeds, indicating a very low level of modern contamination. All identified plant remains including charcoal were removed and bagged separately by type.

Fragments of wood charcoal suitable for identification were examined using a high-powered Vickers M10 metallurgical microscope at magnifications up to x200. Most of the charcoal recovered was in a very good state of preservation, with only occasional fragments too degraded to identify. A representative sample of wood charcoal was identified in order to establish the range of woodland resources in use at the site. The reference photographs of

Schweingruber (1990) were consulted for charcoal identification. Plant nomenclature utilised in the text follows Stace (1997) for all vascular plants apart from cereals, which follow Zohary and Hopf (2000).

Results

Results are presented in Table 10 and discussed below.

Sample	1	2	4	5	6	8	9	11	15	23	24	25	26	28	30	31
Context	534	554	565	622	619	616	631	635	737	745	747	766	764	770	7000	7013
Total CV	2.5ml	35ml	<2.5ml	2.5ml	2.5ml	<2.5ml	20ml	2.5ml	<2.5ml	<2.5ml	<2.5ml	<2.5ml	<2.5ml	2.5ml	<2.5ml	2.5ml
Modern	<2.5ml	5ml	2.5ml	2.5ml	2.5ml	5ml	5ml	<2.5ml	<2.5ml	<2.5ml	5ml	<2.5ml	<2.5ml	<2.5ml	2.5ml	<2.5ml
Carbonised Cereal Grain	Common Name															
<i>Avena sp.</i>	oat															
<i>Hordeum vulgare sl.</i>	barley															
Indeterminate cereal grain (+embryo)																
Charcoal																
<i>Quercus</i>	oak															
<i>Corylus</i>	hazel															
<i>Betula</i>	birch															
Prunoideae	cherry Family															
Indeterminate																
Carbonised Wild Resources																
Burnt peat	1 (0.18g)															
Rhizomes																
Whole Buds																
Carbonised Weeds																
<i>Rumex sp.</i>	docks															
<i>Galium aparine</i>	cleavers															
Other Remains																
Industrial remains (hammerscale)	2				1				1							
Burnt vesicular (industrial / burnt coal?)							15+ (20ml)	5+ (2.5ml)	1 (2.5ml)							
Earthworm egg capsules			3	1		1				1		1	2	1	1	
Modern (non-carbonised) seeds	2			10+		5+		10+		5+	1					1

Table 10. Carbonised plant macrofossils and charcoal

	Sample	32	33	34	35	36	38	40	41	43	45	46	47	49	50	52	53	54
	Context	801	804	7020	7022	7041	7055	7076	7069	8005	7094	8016	8019	8014	8033	8031	8023	8021
	Total CV	<2.5ml	2.5ml	<2.5ml	35ml	45ml	<2.5ml	2.5ml	5ml	100ml	<2.5ml	5ml	<2.5ml	<2.5ml	<2.5ml	<2.5ml	25ml	2.5ml
	Modern	<2.5ml	<2.5ml	<2.5ml	<2.5ml	25ml	2.5ml	<2.5ml	5ml	5ml	2.5ml	2.5ml	<2.5ml	<2.5ml	<2.5ml	<2.5ml	2.5ml	0
Carbonised Cereal Grain	Common Name																	
<i>Avena sp.</i>	oat																	2
<i>Hordeum vulgare sl.</i>	barley									1		1						7
Indeterminate cereal grain (+embryo)										7								43
Charcoal																		
<i>Quercus</i>	oak		1 (0.03g)		14 (2.98g)													3 (0.57g)
<i>Corylus</i>	hazel					2 (0.45g)				7 (1.4g)								2 (0.34g)
<i>Betula</i>	birch					1 (0.92g)												
Prunoideae	cherry Family					6 (2.71g)												
Indeterminate						1 (0.11g)				3 (0.81g)								
Carbonised Wild Resources																		
Burnt peat																		
Rhizomes										1		1						
Whole Buds														2				
Carbonised Weeds																		
<i>Rumex sp.</i>	docks									1								
<i>Galium aparine</i>	cleavers									1				1				
Other Remains																		
Industrial remains (hammerscale)				3														
Burnt vesicular (industrial / burnt coal?)																		
Earthworm egg capsules			2			3					3							
Modern (non-carbonised) seeds		1	5+	2	1	5+	1	5+	5+			2	5+		1	1		

Table 10. Carbonised plant macrofossils and charcoal (cont.)

Discussion

The thirty-nine samples from Cudworth and West Green Bypass produced very little carbonised plant material other than wood charcoal, with the majority of these fragments concentrated in a small number of samples. Occasional cereal grain and weed seeds were also recovered, but similarly concentrated in a small percentage of the analysed samples.

Carbonised cereal grain was recovered from three samples only, with a single probably trace specimen recovered from 46 (8016), a small concentration of eight grains from sample 43 (8005), and a slightly larger cache of fifty-two grains from 53 (8023). The single grain from 8016 was identified as *Hordeum vulgare* sl. (barley) type, with barley also the only variety of cereal identifiable from 8005. Context 8023 produced a large number of poorly preserved and vesicular grains, although some was identifiable as *Avena* sp. (oat) with barley also present. All the cereal evidence recovered pointed towards dumped waste products from activities such as corn drying, with the occasional findings of carbonised weed seeds in some of the same contexts lending weight to this argument. Weeds of disturbed ground / grassy agricultural fields were present in trace amounts in 8005 and 8014, but not recorded anywhere else on the site. It would appear that agricultural activity was confined to discrete areas of the site, but perhaps this is as much to do with distinct periods of activity as it is with spatial differences, and radiocarbon dating of some of the grain may help clarify this.

Identifiable wood charcoal fragments were recovered from eight of the samples, often in quite abundant amounts and with some pieces very nicely preserved. Samples 2 (554), 31 (7013), 33 (804), 35 (7022), 36 (7041), 43 (8005), 53 (8023) and 54 (8021) all contained identifiable pieces, with contexts 7041 and 8005 proving most abundant. Charcoal identified consisted of *Quercus* (oak), *Corylus* (hazel), *Betula* (birch) and Prunoideae (cherry Family) types, with oak common in all but 7041 and 8005. This suggested the presence of mixed deciduous woodland available for fuel and building use, probably with open lighter areas indicated by hazel. There may have been a change over time with oak representing an early, perhaps Prehistoric, period of activity, followed by an increased reliance in later periods on hazel and other open scrub or hedgerow types. For instance oak was the only woodland type recorded from Pit 7022 but completely absent from Ditch 7041, which contained a number of different wood types. Radiocarbon dating would be useful in defining any changes in resource use or availability.

Occasional evidence for the use of peat land and other resources was recovered, with a single piece of burnt peat recorded from Context 554 and single rhizome fragments from contexts 8005 and 8016. Peat may have been used as an alternative source of fuel to wood charcoal, although the evidence from this site is quite rare. Both the rhizomes were found in the same samples as cereal grain, so this may hint at peat being used as fuel for cereal drying.

Industrial activity was suggested by six of the samples containing a combination of hammerscale fragments and burnt vesicular material (possibly burnt coal and other industrial residue). It is possible therefore that samples 1 (534), 6 (619), 9 (631), 11 (635), 15 (737) and

34 (7020) represent a much later period of activity at the site. Contexts 631 and 635 were particularly notable for containing a large amount of burnt vesicular industrial type residue and may possibly be Post-medieval in origin.

Conclusion

The environmental samples from Cudworth and West Green Bypass produced very few carbonised plant macrofossils from the majority of contexts, with the most abundant remains concentrated in only a few key areas. Carbonised material consisted mostly of wood charcoal, with occasional cereal grain and weed seeds, and trace evidence for the use of peat. The presence of a cereal economy was suggested by sparse findings of oat and barley, in three samples only. The extent and period of this agricultural activity would require radiocarbon dating to further clarify.

Wood charcoal was present in small amounts in a number of samples, but the most abundant concentrations were confined to contexts 7041 and 8005. Oak was regularly noted in most of the charcoal containing samples, but appeared absent from both 7041 and 8005. This may indicate a difference in date and / or a change in resource use, perhaps as oak supplies diminished or were replaced by other forms of fuel. Peat was probably also used as fuel, but evidence from the site is quite scarce. Later possible Post-medieval occupation of the site was suggested by findings of industrial material including burnt vesicular material probably related to industrial processes.

7.2 Animal bone by Jane Richardson

Only nineteen animal bone fragments were recovered, twelve retrieved during hand excavations and seven from the processing of soil samples (Table 11). All survive as small fragments and most display eroded bone surfaces. The large and small mammal fragments are likely to represent cattle and sheep, although this could not be confirmed categorically. In the absence of any diagnostic features, the possibility that the tiny cremated pieces represent human bone could not be discounted either. One large mammal (cattle?) bone had been butchered.

Area/Trench	Context	Taxa	Element	Quantity
G/52	630	Large mammal	Long bone fragments	2
H/71	801	-	<i>Undiagnostic fragment</i>	1
H/71	806	Large mammal	Long bone fragment (butchered)	1
		Small mammal	Long bone fragment	1
H	7041	-	<i>Undiagnostic fragments (cremated)</i>	3
I	8023	Large mammal	Long bone fragments	8
I	8023	-	<i>Undiagnostic fragments (cremated)</i>	3
Total				19

Table 11. Animal bones by context (italicised entries represent bone recovered from soil samples)

8 Discussion

The absolute dating for this site is problematic. The absence of ceramic remains from the majority of features means that typological dating cannot be used to inform on dates of use and disuse. A combination of the cartographic evidence, the previously reported geophysical survey and the nature and form of the excavated features does enable some interpretation and a tentative assignment of period of use.

Medieval and post-medieval land-usage

The ditch located in the west of Trench 5 (Fig. 3) does correlate in orientation and position to a field boundary apparent on the 1854 1st edition Ordnance Survey map (surveyed 1849). This appears to be a ditch running along the side of the northern continuation of West “Angen” Lane, now known as Faith Street. The grey-brown silt-clay fill of this ditch suggests sitting water with an organic content that settled and in-filled this feature over time. This does not though preclude an earlier origin.

None of the other features uncovered correspond with any boundaries portrayed on the local tithe maps or subsequent Ordnance Survey maps. They do though align and run parallel with their nearest modern field boundaries and a study of the chronological sequence of the area's cartographic evidence shows a frequent occurrence of smaller fields being amalgamated to form larger ones. Many of the linear features identified therefore may be part of past field boundaries for smaller plots of land.

The two linear features, ditches CG1 and CG2, recorded in Area F (Fig. 5), conspicuously cut across the slope of the field they are in. The result is that CG2 runs parallel to the western boundary of the modern field whereas CG1 runs at a 45-degree angle to it, heading towards the southwest corner of the modern field. It is probable that both these ditches are field boundaries but with no ceramic remains their date is unknown.

The ditches identified in Trenches 52 (636), 54 (623), 56 (613), 57 (617) and 58 (618), may all represent earlier field divisions (Fig. 6). Due to the oblique nature of the road corridor dimensions are problematic but the width of each field may be in the region of 50 m. Dimension for their lengths may be greater than 80 m. It is possible that these field systems represent burgage plots or tenements - enclosed fields extending the confines of a medieval town. Medieval arable field systems are observed in the township of East or Castle Bolton, Wensleydale, having a similar width of approximately 50 m or approximately 55 yards (Moorhouse 2003a, 199 Plate 23; Moorhouse 2003b, 314, Fig. 105). Interpretation of the aerial photographs from Area B indicates a ridge and furrow system of post-medieval origin (Berg and Keith 2001). Further, the place-name ‘Carlton’, to the east of the proposed route, is recorded as Karlatun in the Domesday survey of 1086. The name probably derived from the personal name Karl, and Old English tun, meaning enclosure or farmstead (Smith 1961, 276).

Within the entire Area H open-excavation and evaluation trenches 60 to 75 only a single piece of pottery was recovered, dated between the mid 2nd to 4th-century AD. This single 60

mm long sherd is eroded along its borders suggesting a long transport history and therefore an allochthonous inclusion – having not been originally deposited in the feature it was recovered from, Pit 7023. It could suggest that this feature is younger than the pottery would imply; primary deposition occurring elsewhere at an earlier time and the sherd subsequently being transported into the pit deposits.

Many of the other features had the same form and characteristics, running parallel to the present plough furrows. Other features within the southwest of Area H (Fig. 7) were amorphous and eroded and their interpretation as archaeological is tenuous. Despite running at tangents to the direction of ploughing this is not enough to say they are archaeological, though they may represent attempts at drainage or past field and hedge boundaries.

Despite the eroded nature of features recorded in the north of Area H open-excavation, both the discrete features 765 and 7049, and their alignment with ditches 746 and 7062, suggest they formed a northwest-southeast boundary (Figs 7 and 10). This inference is strengthened by the presence of ditches CG6 and CG7 parallel to the southwest and by ditch CG5 running northeast-southwest and cutting CG6. Approximately 100 m to the southwest of ditches CG6 and CG7, within Evaluation Trench 64 a northwest-southeast ditch (726) was recorded that aligned with a linear magnetic anomaly – this too may form part of a large enclosure or field boundary. The absence of ceramic finds hinders the dating of these features.

The geophysical survey data and subsequent excavations within trenches 70 and 71 also indicate past field boundaries but the lack of pottery precludes any dating.

Iron Age and Romano-British land-usage

The evidence recovered from the evaluation and open area excavations supports the indication from previous geophysical survey and aerial photographs of an extensive system of Iron Age/Romano-British enclosures at the northern end of the road corridor. The absence of ceramics from all but a few contexts does not assist in dating or phasing this landscape. Where ceramic evidence does survive it provides dates no earlier than the Romano-British period. However, it is possible that this system of land division originated in the pre-Roman Iron Age. The lack of pottery to confirm this is not a feature of this site alone; a regional scarcity of Iron Age ceramics being due to original low production and usage and/or poor survival of more friable early fabrics.

With or without confirmed dates, the precise function of the ditched enclosures is not always clear or obvious; although they broadly define functional areas for habitation or subsistence purposes (Riley 1980, 27). One of the inferences drawn from geophysical data is that areas of domestic activity can have a greater magnetic enhancement than areas peripheral to settlement (Burgess 2001; Schofield and Webb 2003, Appendix 1). It could therefore be inferred from the high-level gradiometer readings, that the ditches in Area I are located relatively close to domestic settlement activity. The associated ceramic finds are typical of a

subsistence level agricultural site, showing little signs of erosion through post-depositional transportation, and support this hypothesis.

Additional evidence for Romano-British settlement has come from the nearby site of High Street, Shafton, approximately 400 m to the northeast and the Shafton Bypass Coalfields Link Road, approximately 800 m to the east (Fig. 2). The pottery evidence from the Shafton Bypass indicates occupation by the 1st century AD (Rose 2003). At High Street, the pottery evidence shows initial deposition occurring in the late 1st century with probable abandonment during the later 2nd century (Burgess 2001). The generally later dating of the finds from Area I (late 1st to mid 4th century) may indicate that another settlement, later than that at High Street, is located relatively close by or that the original settlement moved.

Some of the limitations of gradiometer survey have become apparent during these investigations. This can be put down to the two factors: the variable nature of the drift geology and the depth of the subsoil along the road corridor. The result is that some features are readily apparent in some areas yet have a weak magnetic contrast in other areas, making interpretation difficult. Within Area H only one major linear magnetic anomaly was identified and confirmed as a small gully (CG5). All other features were absent from the gradiometer survey – their fills being similar to the natural and therefore having no magnetic contrast. Conversely, all features within Area I had a high degree of magnetic contrast and were expressed extremely clearly. Further, within Area H Trench 73 various discrete anomalies, interpreted as a possible pit alignment, were not observed during excavation – these anomalies therefore were probably within the subsoil and of a recent date.

9 Conclusions

The archaeological investigations on land along the route of the proposed Cudworth and West Green Bypass were able to locate and characterise the remains of an extensive Romano-British system of enclosures to the north of Weet Shaw Lane. Though no direct settlement structures (round-houses, ring ditches or post-hole arrangements) were observed, the quantity and form of the pottery assemblage suggest nearby settlement activity.

In addition, possible medieval or post-medieval field boundaries were identified to the south of Sidcop Road and to the west of Almond Avenue. As pottery was recorded in only a single hand-excavated section, the dating for the other features is tentative based on their form, size and location.

The pottery evidence from Weet Shaw Lane makes this the third Romano-British rural site located between Cudworth and Shafton alongside High Street (Howell 1999; Burgess 2001) and Shafton Bypass (Martin 2001; Rose 2003). Rural sites and their pottery assemblages are highly significant to our understanding of the Romano-British economy (Willis 1997, 15) as they represent and can inform on the living conditions, domestic activities, trading relations and relative wealth. The pottery from the north of the Cudworth and West Green Bypass,

together with material from High Street, Shafton, could prove particularly important as few sites have been excavated in South Yorkshire with significant pottery assemblages and little is known about rural pottery supply in this region (Howell 1999; Burgess 2001). The Cudworth Bypass results have added further valuable data to understanding an area of early and possibly widespread Iron Age and later Romano-British occupation.

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