RPS Planning, Transport and Environment

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Northern Archaeological Associates

EXACAVATION AT LANGTHORPE, NORTH YORKSHIRE

FOR

BULLEN AND PARNERS

REPORT NAA 96/48

15 Redwell Court, Harmire Road, Barnard Castle, Co. Durham DL12 8BN

EXCAVATION AT LANGTHORPE, NORTH YORKSHIRE

by

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with contributions from Denise Allen, M.C. Bishop, R.J. Brickstock, J.C.N. Coulston, J.N. Dore, Jacqueline P. Huntley, P. Makey and T.G. Manby.

Illustrations by D. Ronan

Summary

Excavation was undertaken in advance of motorway construction on a previously unknown prehistoric and Roman site on the north bank of the River Ure close to the village of Langthorpe, North Yorkshire. Two rectilinear enclosures and a field system of Iron Age date were sealed by a possible plough horizon, above which evidence of a 1st-century AD Roman structure survived. An isolated pit containing a large carbonised grain assemblage dating to the early medieval period and a series of 15-16th century hearths were found aligned on one of the Iron Age field boundaries, which must have survived as an earthwork. The importance of the site is enhanced by its proximity to the newly-discovered early Roman military complex at Roecliffe on the opposite bank of the River Ure. Dating evidence to link the two sites was obtained.

INTRODUCTION

The excavation at Langthorpe was undertaken during April and May 1993 in advance of bridge construction work north of the River Ure and south of Skelton Road. The work formed part of a wider programme of archaeological survey and excavation undertaken by Northern Archaeological Associates (NAA) for Bullen and Partners on behalf of the Highways Agency in advance of the upgrading of the existing A1 between Walshford and Dishforth in North Yorkshire.

Site location

The site was situated on the north bank of the River Ure at SE 3862 6715, lkm to the north-west of Boroughbridge in North Yorkshire (Fig. 1). The area of the site was defined by Skelton Road to the north, the River Ure to the south and the embankment of the existing Al to the east. The site was located on a flat river terrace at a height of 20m AOD. The soils were predominantly sandy although a clay horizon was recorded immediately below the topsoil in the southern surcharge adjacent to the river.

The present day route of the A1 in the area of the site was constructed in the early 1960s to by-pass Boroughbridge. At the southern end of the site the River Ure provides a natural barrier which would have been present at the time the site was in use.

Project background

The site at Langthorpe was under pasture at the time of the initial assessment of the proposed corridor route and was not therefore included in the fieldwalking survey of the motorway corridor. Geophysical survey and trial trenching was undertaken on the east side of the A1 close to the Devils's Arrows standing stones (Fig. 2, Area 4). The survey area was extended to the west side of the road where the Roman fort complex at Roecliffe was discovered (Fig. 2, Areas 1 and 2) and further survey was undertaken to establish whether features associated with the fort were present on the north bank of the River Ure. This survey identified archaeological anomalies on two separate alignments (Fig. 2, Area 3); linear features at right angles to the Al embankment which appeared to relate an early field system and narrowly-spaced anomalies aligned on the extant ridge and furrow.

A trial trench measuring 30m north to south and 4m east to west was excavated to evaluate anomalies detected by the geophysical survey and identified the junction of two linear ditches of Iron Age or Romano-British date together with traces of a hearth and several small pits.

THE EXCAVATION

The site consisted of three linked areas; a northern surcharge measuring 50m north to south by 36m east to west; a southern surcharge measuring 72.5m north to south by 37.5m east to west; and a 60m by 10m drain corridor between the two surcharge areas, producing a total area of 5120 sq. m. The central area between the two surcharges was not excavated and was 'preserved' beneath the new motorway embankment. Numerous ditches, slots and pits were identified within the two stripped surcharge areas (Fig. 3).

Early prehistoric activity

The earliest activity on the site was represented by an assemblage of 79 flints, most of which were residual. Two microliths and a possible burin of probable Mesolithic date were recovered from the fills of a major north to south ditch 1650 whilst several small cores of types normally associated with the later Neolithic and Early Bronze Age were recovered during topsoil stripping. A fragment of a barbed and tanged arrowhead also came from a topsoil deposit.

Phase Ia

Enclosure 1460

Activity of a more permanent nature than that suggested by the flint scatter was indicated by two small rectilinear enclosures situated in the northern area of the site and an associated field system which continued southwards towards the river.

Enclosure 1460 in the northern surcharge comprised four linear construction trenches (1206, 1215, 1248 and 1292), forming a rectangular enclosure measuring 14m north to south by 11m east to west. The trenches were steep sided with a flat base and survived to a maximum depth of c.0.7m. The homogenous sandy fill and the unweathered sides indicated that the slots had been backfilled shortly after their excavation. The eastern slot (1292), extended north of the enclosure and may have continued beyond the edge of site.

No finds were recovered from the construction slots but charcoal recovered from the fill of slot 1248 was radiocarbon dated to 395 to 110 cal. BC (RCD-1767). The pits located within the enclosure were almost certainly later features and pit 1244 in particular cut the enclosures northern ditch and contained a relatively large assemblage of Roman pottery.

Phase Ib

Enclosure 1462

A second, later enclosure (1462) was situated in the northern surcharge to the east of the enclosure 1460 above.

The enclosure measured 18m north to south and over 15m east to west and was defined by three slots 1070, 1160, 1190. The profiles and dimensions of the slots were similar to those of enclosure 1460 with an average width of 0.9m and depth of 0.65m. Post settings were indicated by concentrations of packing stones set at intervals within the fill of slot 1190. As was the case with the primary enclosure, several pits or postholes were present, but apart from an amphora fragment within the fill of pit 1443 in the northeast corner of the enclosure, no further dating evidence was recovered.

On the enclosure's southern side, the upper fill (1062) of slot 1070 contained an assemblage of 11 sherds of a vessel of Iron Age character. The slot itself was interrupted by a narrow entrance gap, 0.4m wide. Slots 1160 and 1190, on the north and west side of the enclosure respectively, cut through the construction slots of enclosure 1460 described above. Charcoal from the fill of slot 1190 was radiocarbon dated to 380 to 30 cal. BC (RCD-1766).

Field system

A group of ditches in the southern surcharge and the connecting corridor appeared to be part of a field system which originated in the mid to late Iron Age and possibly continued in use during the Romano-British period.

The longest ditch (1650) in the field system ran for c.70m in a north to south direction and turned eastwards at the northern edge of the surcharge beyond the edge of the site. Ditch 1094 in the north surcharge followed the alignment of the ditch and butted against enclosure 1462. At its central point (segment 1617) ditch 1650 was 2.15m wide and 0.95m deep with steep sides and a 0.2m wide flat bottom. A maximum of seven fills were recorded in the ditch and charcoal fragments extracted from a bulk sample of the primary fill (1629) were radiocarbon dated to 1690 - 1320 cal. BC (RCD-1769). A single sherd of Iron Age character pottery and three residual Mesolithic flints were recovered from fill 1635. Like the flints, the tiny quantity of charcoal submitted for the date may have been a residual component of the ditch fill, producing a Middle Bronze Age date for what is more likely to be an Iron Age feature.

Two ditches (808 and 822) were recorded in a pre-construction trial trench and it is likely that ditch 808 was again recorded in the site corridor to the west (1373). Iron

Age character pottery recovered from both of the ditches in the trial trench suggested that these could have been part of the field system.

Pit 1724

Four metres to the west of ditch 1650 in the southern surcharge, a large oval pit (1724) measured 4.2m north-east to south-west and 2.3m north-west to south-east and was 1.35m deep. Four sherds of Iron Age character pottery were recovered from the fill (1651) of a recut (1647). In view of the proximity of the Devil's Arrows standing stones the possibility remains that the pit was originally constructed to support a megalith.

Phase II

Plough horizon 1150

A compacted yellow-brown sandy silt with occasional charcoal flecks (1150) was c.0.15-0.2m thick and was mainly restricted to the north surcharge and the corridor areas of the site. After removal by machine the deposit was found to have sealed the Iron Age features described above but was cut by features of Roman date. Soil analysis of the horizon indicated a carbon content commensurate with a relict topsoil/ploughsoil.

Phase III

In the late 1st-century AD a timber building was erected in the north-west corner of the site. Many of the deposits associated with the structure had been truncated by later ploughing and it was only possible to obtain a partial record of the building. The most prominent features comprised a series of intercutting slots (1121, 1129, 1131 and 1140) and two further slots (1012/1100, 1024) 3m to their south. A north to south orientated extension (1106) to slot 1100 cut through the southern ditch of the Iron Age enclosure 1460. Smaller sections of slots (1022 and 1066) were also part of the structure. The slots measured between 0.20m and 0.47m in width and the deepest only survived to 0.26m. Although it was difficult to be certain the structure measured at least 15m east to west by 13m north to south.

The pits and postholes recorded to the east of the foundation slots may have been contemporary with the structure and at least four of the pits (1125, 1244, 1443 and

1444) contained Roman pottery in their fills. A small hoard of coins was recovered from a ditch (1381) situated 25m south of the structure described above. The hoard consisted of a silver denarius and several copper alloy coins found together in what may have been the remains of a purse made of textile or leather.

Phase IV

Pit 1615

Pit 1615 was situated on the extreme northern edge of the south surcharge and cut through the fill of a north to south aligned ditch (1650) of the earlier field system. The pit measured 3.65m long by 1.70m wide, and survived to a depth of 0.76m after machining. Three of the sides were very steep or vertical with only the south-west side gently sloping to a flat base. The base of the feature had been burnt (1616) and formed a hard, orange-red burnt clay that was considered unsuitable for thermoremanent magnetism dating. Finds from the remaining fill (1527) included pottery, bone, flint and a copper alloy object.

The entire north-west half of the deposit (c.2100 litres) was bulk sampled due to the large quantities of carbonised grain within the fill. Palaeobotanical analysis of the grain identified it as being of a post-Roman form and a radiocarbon date of a grain sample indicated an Anglo-Scandinavian/early medieval date (770 - 1150 cal. AD; RCD-1768). No other features of this period were recorded.

Phase V

A group of five hearths (1511, 1513, 1518, 1520, and 1523) was recorded running alongside, and cutting through the fill of, a north to south aligned ditch (1650) of the earlier field system. Thermoremanent magnetism dates derived from three of the hearths (1511, 1520 and 1523) spanned the period AD 1400 - 1570. The location of the hearths demonstrated that the infilling of ditch 1650 appeared to have been a gradual process and at least a part of its course was still visible in the later medieval period.

SPECIALIST REPORTS

The principal technical and specialist reports are presented below. The description and phasing of contexts referred to in the catalogues are more fully described in the site archive.

Thermoremanent magnetism (TRM) dates

Archaeomagnetic dating of three hearths was undertaken by Geoquest Associates. Contexts 1511, 1520 and 1523 were found to contain highly stable, internally consistent thermoremanent magnetisations as a result of being heated in the ancient geomagnetic field.

Correction was required to the archaeomagnetic declination within each context before a comparison could be made with the medieval segment of the UK Master Curve. This took account of an error in the assumed magnetic variation caused by proximity to steel scaffolding (context 1511) and the A1 motorway (contexts 1520 and 1523).

Archaeomagnetic ages for these three features were determined as follows:

Context	Date
1511	1510-1550 AD
1520	1400-1425 AD
1523	1510-1570 AD

Radiocarbon Dates

Samples from four features were submitted for radiocarbon dating. The calibrated date range for each sample is presented in the text at the 95% confidence level (2σ) followed by the measurement reference code and the uncalibrated date BP. The dates in the text have been rounded to the nearest decade but the full range of dates at the 68% (1σ) and 95% (2σ) confidence levels is shown in Table 1.

Table 1: Radiocarbon dates

Context	Laboratory Reference	Age BP	Radiocarbon Calibrated Age Range BC/AD 68%	95%
1190	RCD-1766	2140±70	355 to 295 BC	(28%) 380 to 30 BC
			245 to 105 BC	(72%)
1247	RCD-1767	2200±70	370 to 270 BC	(57%) 395 to 110 BC
			270 to 200 BC	(43%0
1527	RCD-1768	1090±70	885 to 1010 AD	770 to 1150 AD
1629	RCD-1769	3220±75	1605 to 1555 BC	(24%) 1685 to 1380 BC (98%)
			1540 to 1425 BC	(76%) 1345 to 1320 BC (2%)

Roman Glass
by Denise Allen

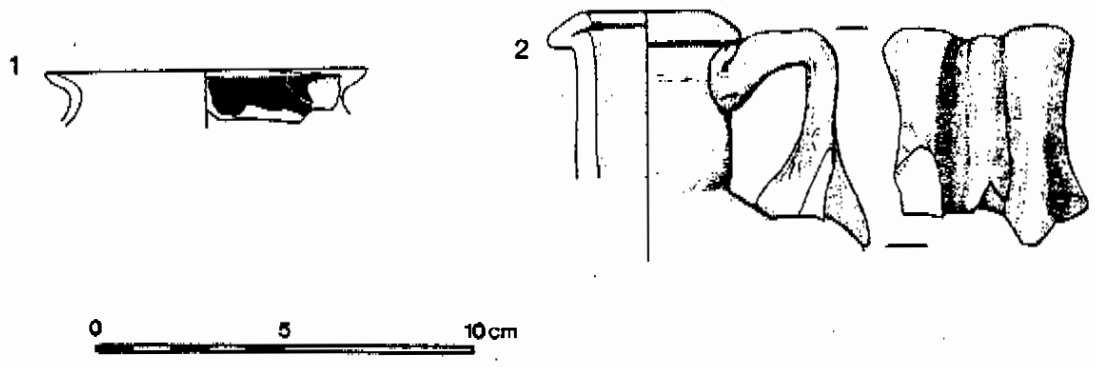
Catalogue

1 Blown glass rim fragment of beaker or cup of yellow-green glass. Rim outflared and fire-rounded; outer surface has large marvered blobs of opaque white glass. Diameter of rim c.8.5cm [1001].

2 Rim, neck and handle of a bottle of blue-green glass. Rim folded outward, upward and inward to form sloping lip, diameter 5.5cm; cylindrical neck; angular, three-ribbed handle attached at shoulder and just below rim. There are horizontal scratches visible just below lip which continue beneath handle attachment and must have been caused during manufacture [1325].

Discussion

The decorative technique applied to the beaker rim was popular during the first half of the 1st century AD and was used on a wide variety of vessel forms. Fragments have been found on many Claudian to early Flavian sites in Britain including Kingsholm (Price and Cool 1985, 43, nos. 17-20, fig. 17) and Camulodunum (Harden 1947, 296, nos. 23-27), and a complete bath-flask was found in a context of AD 80-90 at Richborough (Harden et al 1968, 58, no. 70). Blue-green bottles account for a large proportion of any glass assemblage of 1st to 2nd century date.



The coins

by R. J. Brickstock

Nine coins, or coin-like objects were recovered from the Langthorpe site and were sent for identification after cleaning and conservation by the Department of Archaeology, University of Durham. All but two of the coins are of Roman date and form a very closely dated assemblage providing powerful evidence for the period of Roman occupation of the site.

The two Roman silver denarii [catalogue numbers 1 and 2], encompass the years from 80 BC through to 43 BC. Catalogue number 1, a denarius of the moneyer L. Procilius issued in Rome in 80 BC, was found corroded en rouleau with four bronze coins of Vespasian [catalogue numbers 5-9]: this group can be regarded as a small purse hoard. Careful conservation allowed these coins to be separated and cleaned, revealing three dupondii of AD 71-73 all of PAX type (though not die-linked) and a sestertius [catalogue number 9] issued in Lyons in AD 77-78. As none of these bronze (or more correctly oricalcum) coins showed more than slight ware, this hoard could have been deposited soon after that date. Catalogue number 9 may well be the latest coin produced by the present excavations.

Abbreviations used in the catalogue

Mints.
LG: Lyons RM: Rome CA: Canterbury.

Denominations. [denom:]
AS: As DP: Dupondius DEN: Denarius SEST: Sestertius

Catalogue. [cat:] (numbers refer to RIC unless otherwise stated.]

RIC: The Roman Imperial Coinage

CR: Roman Republican Coinage

Catalogue

1	L. PROCILI F	denom: DEN	date: 80 BC	Obv Laureate head of Jupiter, r., behind SC, border of dots
	mint: RM	cat: CR 379/1	diam: 18.5mm	Rev Juno Sospita stdg. r., behind head L.PROCIL[I]/F
	wt: 3.7g	wear: VW/VW	die axis: 3.	Context 1378 AB

2	P. ACCOLEIUS LARISCOLUS	denom: DEN	Obv P.ACCOLEIVS LARISCOLVS Bust of Diana, r.
	date: 43 BC mint: RM	cat: CR 486	Rev Triple cult statue of Diana Nemorensis
	diam:19.5mm wt: 3.1g	wear: VW/VW	die axis: 5. Context 1325 AA
3	VESPASIAN denom: AS	date: 71	Obv [IMP CAES] VESPASIAN AVG COS [III]
	mint: RMetc. cat: 486	diam: 28mm	Rev FIDES [PVBLICA] SC
	wt: 4.5g wear: SW/SW	die axis: 6	Context 1378 AE/1
4	Illegible soil impression	denom: AS	Obv (probably soil impression left by 1378 AE/1)
	date: (71?) mint: cat: -	diam: 0.0 mm	Rev
	wt: 0g wear:	die axis:	Context 1378 AE/2
5	VESPASIAN denom: DP	date: 71-73	Obv [IMP C]AESAR VESPASIAN [AVG COS..]III
	mint: RM/LG cat: 475/740	diam: 29mm	Rev PAX [AVG] SC
	wt: 11.8g wear: SW/W	die axis: 7	Context 1378 AA/2
6	VESPASIAN denom: DP	date: 71-73	Obv [I]MP CAESAR VESP[ASIAN AVG COS III..]
	mint: RM/LG cat: 475/740	diam: 27.5mm	Rev PAX AVG SC
	wt: 8.4g wear: SW/SW	die axis: 6	Context 1378 AA/3
7	VESPASIAN denom: DP	date: 72-73	Obv IM[P CAESAR V]ESPASIAN AVG COS IIII
	mint: LG cat: 740	diam: 28mm	Rev [PAX] AVG [S]C
	wt: 8.6g wear: SW/SW	die axis: 7	Context 1378 AB/2
8	Illegible AE fragment	denom: DP/AS	Obv Labelled as "Poss. grass packing and coin frags":
	date: (72-73?) mint: -cat: -	diam: 0 mm	Rev Protruding edge of AE coin perhaps part of 1378 AB/2
	wt: 0g wear: C/C	die axis:	Context 1378 AB/2?
9	VESPASIAN denom: SEST	date: 77-78	Obv [IMP CAES VESPASIAN AV]G PM TRP PP COS VIII
	mint: LG cat: 752	diam: 32.0 mm	Rev [SALVS] AVGVSTA SC
	wt: 17.3 g wear: SW/SW	die axis: 6	Context 1378 AA/1

The flint

by P. Makey

Discussion

A total of 79 lithic fragments were recovered from the site at Norton Grange of which 34 were patinated, 12 showed evidence of burning and two were natural. The overall assemblage was not as fine as the lithics assemblage from the site on the south bank of the River Ure (see report Britannia forthcoming). Nearly all of the lithics appeared to be of a residual nature and some fragments had been subject to post-depositional rolling.

The utilisation of sources other than flint is worthy of consideration. Context 1651 produced a small chert flake core and 1003 an edge-utilised blade. This clearly

demonstrates the deliberate procurement and utilisation of low grade materials. The source of the chert is probably Wensleydale or Swaledale (T.G. Manby - pers. comm.).

Chronology

The Mesolithic element comprised two microliths from contexts 1064 and 1529 and a possible micro-burin from context 1522. These are typically later Mesolithic forms.

Contexts 1001 and 1003 contain small cores of types normally associated with later Neolithic and Early Bronze Age lithic industries. In addition to this context 1003 contains a barb fragment from a barbed and tanged arrowhead.

Prehistoric Pottery

by T.G. Manby

Trial Trench

1a. Four flakes and crumbs of a brown 'open' laminated fabric [807].

1b. Two sherds 'open' laminated fabric with brown toned exterior, dissolved (voids) organic temper [807].

1c. A single sherd. Hard compact fabric, orange buff exterior, dark grey interior, scattered fine quartz sand and fragments and chert >5mm. 8mm wall thickness. Iron Age [807].

2 Hard dense fabric, brittle laminated, orange-toned brown surfaces, much fine sand quartz temper. One of the sherds has a thick carbonised deposit on the exterior. The second sherd has the external surface eroded. Two sherds, 8mm wall thickness. Iron Age character [823].

Excavation

3a. Two joining sherds. Hard, dark grey, brown toned exterior, sparse sand temper, 6mm wall thickness Iron Age character [1001].

3b. A single small sherd. Hard, orange buff exterior, buff interior, dark grey core, profuse sand temper, 6mm wall thickness. Iron Age character [1001].

3c. a single small weathered and abraded sherd. Hard, dark grey exterior, buff brownish interior, profuse coarse sand temper (much angular quartz, quartzite and chert). Iron Age character [1001].

4 One sherd, weathered and abraded. Hard, dark grey, brown toned exterior, buff interior, profuse coarse sand temper. 6mm wall thickness (same fabric as 3c). Iron Age character [1020].

5 Group of 11sherds including three joining sherds of vessel with incurving to rim with an internal bevel. Approximately 160mm diameter at rim - profile and diameter are difficult to calculate due to the abraded nature of the lip. Thick medium fabric, 'open' buff surfaces. Scattered stone, quartz sandy and much organic (voids) temper. 13mm wall thickness. Interior surface pitted. Other pieces in same fabric but abraded, >15mm wall thickness and grey tones to exterior. Iron Age character [1062].

6 One sherd, unweathered. Hard dense medium coarse fabric, harsh surfaces, orange buff exterior and dark grey interior, brown toned surface. Profuse quartz sand and scattered angular fragments >3mm. 10mm wall thickness. Iron Age [1064].

7 Three crumbs or flakes abraded. Buff reddish and grey-tones flaky fabric [1099].

8 Three joining sherds from a base 180mm in diameter, simple rounded. Two joining wall fragments. Hard dense fabric, brittle laminated orange-toned brown surfaces grey core, harsh surfaces, much fine sand quartz temper. 10mm wall thickness. Iron Age [1285].

9 One sherd, hard dense buff exterior, dark grey interior. Much quartz sand temper with scattered angular rock fragments erupting through the surface >10mm across, weathered granite and coarse sandstones. 9mm wall thickness. Iron Age [1635].

10 Weathered soft 'open' laminated fabric, orange exterior, grey interior, grog and scattered quartzite fragments. Four sherds, 2 joining. Iron Age character [1651].

Roman pottery

by J. N. Dore

Catalogue

1 1 wall sherd Dr 18 [1001].

2 1 base sherd Dr 18R [1002].

3 Wall sherd from a beaker of form Camulodunum 120, pale reddish brown with dark grey core. Inclusions: sparse, quartz T1 (max T2), occasional black vitreous grains and mica, both T2 [1011].

4 Jar, mid grey with darker grey outer surface. Inclusions: common, quartz T4, black iron ore T3. Diameter 17mm, 7% [1029].

5 1 wall sherd Dr 27 SG [1059].

6 1 wall sherd Dr 18 SG [1059].

7 Jar, pale grey with micaceous darker grey surface. Inclusions: common, quartz T3 (max) T4) and occasional grains of red iron ore T5. Diameter 13mm, 70% rusticated decoration [1059].

8 Jar, mid grey. Inclusions common, quartz T2 (max T3) and occasional clay pellets T5. Diameter 10mm, 5% [1059].

9 Jar, pale grey, micaceous black surface. Inclusions: common, quartz T3, occasional grains of red iron ore T5 and limestone T3. Diameter 13mm, 15% [1059].

10 Amphora of form Dressel 20, mid brown. Inclusions: common, quartz T4, mica T4. Diameter 16mm, 30% [1077].

11 1 large fragment showing complete profile of Dr 27 CG, stamped [1155].

12 Jar, mid grey. Inclusions: common, quartz T2, occasional black vitreous grains T2, black iron ore T4 and limestone T4. Diameter 12mm, 13% [1193].

13 2 wall sherds (? same vessel) Dr 29 [1223].

14 Jar, hand made, orange red with dark grey core. Inclusions: common, quartz T4. Diameter 20mm(?), 3% [1450].

15 1 rim sherd, 2 wall sherds (?same vessel) Dr 37 SG, showing small double-bordered ovolo with tongue with rosette tip [1456].

16 1 wall sherd Dr 27 SG [1456].

17 Jar, hard red brown with black surface. Inclusions: common, quartz T3 (max T4). Diameter 19mm, 8% [1652].

18 Lid, orange with dark grey core. Inclusions: common, well-rounded quartz T3, occasional grains or red iron ore T3. Diameter 23mm, 5% [1652].

19 1 rim sherd Dr 18 SG. Diameter 18mm, 5% [1687].

The plant remains
by Jacqueline P. Huntley

Introduction

Bulk sampling of samples was undertaken on site and had been undertaken using a modified Siraf tank with flots being retained upon a 500µ mesh and the residues upon a 1mm mesh. Following assessment (Huntley, 1993) 19 samples from Langthorpe were submitted for full processing and the results are presented in this report. The present report is a summary of a more detailed, archive report prepared by the author.

Methodology

All fruits and seeds were sorted from the flots, at magnifications of up to x40, and identified by comparison with modern reference material belonging to the author. Measurements of the lengths and breadths of the better preserved wheat and oat grains were taken using a calibrated eye-piece graticule.

Results

All of the archaeobotanical material had been preserved through carbonisation. As such it largely comprised cereal grains and associated chaff and weeds, as is to be expected in a country where natural fires are rare. Non-carbonised seeds were abundant in some contexts. These derived from Fumaria officinalis (fumitory), Chenopodium album (fat hen) and Stellaria media (chickweed) all common arable weeds in the area today and are, indeed, considered to represent modern seed bank material. Modern fine rootlets were a problem in many of the flots and indicate the relatively shallow nature of the deposits. There is, therefore, the possibility of contamination of archaeological material due to biological activity in the soils.

Seeds concentrations were low, with values generally less than 1 seed per litre of sediment processed except for four samples, one of which was particularly rich. Contexts 1691, 1536 and 1527 produced concentrations of up to 22 seeds per litres whereas 1562 contained 55 seeds per litre. Such general values are low when compared with Ribchester in Lancashire, a comparable vicus associated with a slightly later, early-mid 2nd century, fort where the majority of samples contained up to 5 seeds per litre (Huntley, 1994b). Except for these four it is suggested that neither crop processing nor usage were being explicitly carried out in these contexts.

Interpretation

Twice as much material of Roman date was recovered from the Langthorpe samples than from the vicus site to the south of the river in spite of only a quarter of the number of samples being analysed. It seems clear that this site represents a more domestic area than that represented in the vicus. It is of interest that more wheat is recorded from Langthorpe whereas barley was the dominant cereal in the vicus. This may simply reflect the rather low numbers overall but could indicate the use of barley for animal feed, probably horses, and associated with the fort. An abundance of general small grasses, in particular Sieglingia, and Montia seeds, suggests fine sieving debris, perhaps indicating cereal processing to the north of the river.

Context 1527 was the fill of a large pit (1615) cut into ditch 1650 at its terminus. More or less equal amounts of oats and bread wheat were recovered from the deposit with about a quarter as much rye and one tenth as much barley. Very few of the cereal grains were complete and therefore relatively few were measurable. They were not abraded. Chaff was very rare with one fragment of barley rachis, one cultivated oat

floret base and three wheat floret bases only. In addition, abundant achenes of the stinking mayweed, Anthemis cotula, reinforce this suggestion. This is a plant of heavy clay soils and it is generally considered that improved ploughing techniques in the middle ages allowed cultivation of the heavier soils and hence the increased importance of a different suite of arable weeds. The botanical assemblage from this deposit clearly indicates a post-Roman date although it differs from other medieval material in that many of the classical arable weeds are not represented whereas those of more nutrient enriched cultivation are. Comparable Saxon data are more or less absent - the few sites with material preserved commonly have barley and oats but no wheat (see for example Whithorn (Huntley 1994b)).

DISCUSSION AND SUMMARY

The excavation at Langthorpe has produced evidence for sporadic occupation on the site from the Iron Age to the medieval period. Initially, probably in the later Iron Age, the site supported a mixed agricultural regime, but in the later half of the 1st century AD a relatively large timber structure was erected which may have been a *mansio*. After several hundred years of apparant abandonment the site was reoccupied in the Anglo-Scandanavian and again in the later medieval periods.

Later prehistoric occupation

Both of the rectilinear enclosures were radiocarbon dated to the mid to late Iron Age and they were probably used for penning stock. Their association with the adjacent field system points to the integration of crops and animal husbandry typical of a mixed farming economy (Fowler 1983; Ramm 1980). Their length of use remains uncertain; Roman pottery in the ditch fills and in at least four of the internal pits suggests that their use may have extended into at least into the 1st century AD. Alternatively, a period of ploughing between the Iron Age and Roman occupation of the site is indicated by the stratigraphy and the enclosures may have been incorporated into the field system during the Romano-British period.

Relationship to Roecliffe fort

That the Roman occupation of the Langthorpe site coincided with the military presence at the Roecliffe fort on the south bank of the River Ure is demonstrated by pottery and coin evidence. The dating evidence provides a powerful chronological bridge linking the sites on each bank of the river: none of the bronze (or oricalcum)

coins from the small purse hoard found at Langthorpe displayed significant wear and could have been buried shortly after the date of the latest coin, a sestertius issued in Lyons in AD 77-78. Similarly, the pottery from both of the sites supports a 15 to 20 year occupation within the Flavian period.

In contrast to the military activity on the south bank of the river the nature of the Romano-British occupation on the north bank is more conjectural. The surviving dimensions of the rectilinear structure in the north-west corner of the site and the presence of partition slots and dividing rooms points to it being a dwelling rather than a barn or similar such building. Its use as a mansio, providing accommodation for travellers who failed to cross the river before the onset of darkness, can only be summised, as must its physical link to the fort by means of a causeway or other such form of river crossing. The presence of a river crossing to the west of the fort for an east to west aligned road has been postulated by Bishop and any northern route would probably have connected the fort to the site at Langthorpe. The contrast in the use of the two sites is highlighted by the environmental evidence; the dominance of wheat at Langthorpe and barley at Roecliffe may reflect economies geared towards domestic and military consumption respectively.

Post-Roman period

After its abandonment towards the end of the first century AD, the dereliction of the site appeared to have been left unchecked for almost 1000 years. The re-occupation of the site in the Anglo-Scandinavian period, or shortly after the Norman conquest is indicated by the radiocarbon date of grain from a large pit cut into the principal north to south ditch of the earlier Iron Age field system. It is clear that the field system ditch was visible even after this length of time, as the line of later hearths cutting the ditch fill confirms.

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