Humber Field Archaeology
Archaeological Consultants and Contractors

TRIAL EXCAVATIONS

AT

WELTON LOW ROAD, ELLOUGHTON
MARCH 1996

TRIAL EXCAVATIONS

AT

WELTON LOW ROAD, ELLOUGHTON

March 1996

J. Tibbles
HUMBER ARCHAEOLOGY PARTNERSHIP, The Old School, Northumberland Avenue, HULL HU2 0LN

April 1996

Humber Archaeology Report No. 1

Contents

1 SUMMARY

An archaeological evaluation by trial trenching was undertaken in Welton Low Road, Elloughton, by the Humberside Archaeology Unit (now the Humber Archaeology Partnership), over two weeks in March 1996, on behalf of Messrs. Bean, Bean, Coote and Byass, landowners, through their agents Carter Jonas. The work follows an outline planning proposal for residential development.

Nine trenches were excavated, in positions determined by the location of known or possible archaeological features, including a Roman road leading from the small Roman town at Brough, and the site of the 19th-century Elloughton Corn Mill. In the event, the majority of the site was found to be devoid of archaeological remains, and what there was, fell into two distinct areas. The most readily interpretable were the ditches flanking the Roman road, which ran through the south-east corner of the development area; these had been redefined on several occasions, and a small quantity of 2nd-century pottery was recovered. Some distance north of the road, close to the eastern side of the development area, a sequence of intercutting drainage and/or boundary ditches of probable Romano-British date was recorded, the fills of which contained organic deposits preserving evidence of the contemporary landscape; assessment of soil samples has highlighted the value of these deposits.

Trenches cut to locate any surviving parts of the tower mill were unproductive, though a yard surface assumed to be associated with it was exposed.

2 INTRODUCTION

2.1 Circumstances of the fieldwork

This report presents the results of archaeological evaluation by trial trenching carried out by the Humberside Archaeology Unit, now the Humber Archaeology Partnership, on land to the south of Welton Low Road, Elloughton (Site Code WLE 96; centred on National Grid Reference SE 9495 2725). The work was undertaken on behalf of Messrs. Bean, Bean, Coote and Byass, landowners, by arrangement with their agents Carter Jonas, Chartered Surveyors, to provide information in response to an outline planning application to Beverley Borough Council for residential development. A specification to provide a scope of work for the trial trenching was produced by the County Sites and Monuments Officer (ref. GF/January 1996), and the Humberside Archaeology Unit submitted a successful tender. A project design for the work (dated 21/2/96) was produced with reference to the specification.

The evaluation took place within an area of *c.*10.5 ha (*c.* 26 acres) on the site of the former Elloughton Road Nurseries, Welton Low Road, Elloughton (see Fig. 1). The site lies to the south of the A63(T) road, midway between the present settlements of Brough and Welton, and south-east of the village of Elloughton. The site lies between the 10 and 20m contour intervals, *c.* 2km north of the River Humber foreshore.

2.2 Archaeological and historical background

The site of the proposed development lies within an area of archaeological significance to the north-east of the Roman town at Brough (*Petuaria*), adjacent to, and overlying a section of, the Roman road heading from the eastern gate of the walled town towards the villa site on Welton Wold and beyond to the east (Sites and Monuments Record No. 6659). The course of this road shows clearly as a cropmark of parallel, straight, ditches on aerial photographs of the adjacent field to the east (Cambridge University Committee for Aerial Photography: refs BQT 009; 010 (July 1974); BRJ 12 (August 1974)). This road, beyond the town, has not been the subject of any previous, detailed archaeological investigation. A glimpse of a section in close proximity to the walled town area was afforded by recent archaeological investigations in advance of residential development south of Welton Road, Brough (York Archaeological Trust, unpublished).

The ditched boundaries of a former field system can be seen to bisect/are bisected by, the course of the Roman road in the field to the east of the proposed development area. This alignment appears to be continued by linear, ditch cropmarks in the fields immediately north of Welton Low Road (and the present A63, which runs parallel). To the east of these cropmarks are further ditched enclosures suggestive of an Iron Age/Romano-British settlement complex (SMR 3472). There are ceramic and metalwork finds from this general area recovered by fieldwalking and metal detecting of Iron Age, Romano-British and Anglo-Saxon date (SMR 8047; 17243).

In addition, the Victoria County History refers to a windmill still worked in the mid 19th century, when it stood 'south of Low Road, near the Welton boundary' (SMR 11518).

This site is shown on the first edition 6" Ordnance Survey map of 1855 (Sheet 239); Mill Cottage is shown on the 1890 25" map; it falls within the application area, adjacent to the eastern site boundary.

2.3 Soils and geology

The soils of the area are classified by the Soil Survey of England and Wales (1983, Sheet 1, Northern England, 1:250,000) as 512b - Landbeach, a gleyic brown calcareous earth. The underlying geology is classed by the British Geological Survey (1978 Sheet 80, Kingston upon Hull, 1:50,000) as sand and gravel (including post-lacustrine levee sand) - Vale of York glacial lake deposits overlying Upper Jurassic Ancholme Clay Group deposits.

3 THE EXCAVATIONS

3.1 Methodology

The excavation was carried out over a period of two weeks in March 1996, with a team of four staff from the Humberside Archaeology Unit. Nine trenches were excavated, numbered 1-9 (see Fig. 1). Some trenches were positioned to investigate features with known archaeological potential, such as cropmarks seen on aerial photographs, the Roman road alignment and the 19th-century windmill, while three of the trenches - Trenches 4, 5 and 6 - were positioned in areas of unknown archaeological significance.

Topsoil was stripped from the trenches by mechanical excavator and the exposed subsoil cleaned by hand to define the archaeological features. Standard Humberside Archaeology Unit recording procedures were used throughout; each identified feature was allocated a context number and written descriptions recorded on *pro forma* sheets and plans and sections drawn on film sheets. Finds recovered from each feature were labelled accordingly and finds of special interest allocated an individual Recorded Find (RF) number. Samples were taken from selected features for analysis of surviving biological remains.

3.2 Results

Trench 1

(Figs 2 and 3; Plates 1 and 2)

This trench was "T"-shaped, with north-west/south-east and north-east/south-west aligned arms. Both arms were approximately 30m long by 2m wide with a mean depth of approximately 0.3m (13.57m OD). The trench was positioned to intercept the route of the Roman road and to establish if any settlement features lay north of it.

At the southern end of the NW/SE-aligned arm was a 1.2m-wide ditch which flanked the southern edge of the Roman road. The ditch cut into a mottled orange natural sand and had been recut at least once. The earliest cut (4), was 1.65m wide by 0.5m deep, with relatively steep sides and a flat base. Its fills (21, 24) varied between light and pale grey silty-clays; none contained any dating material. The later cut (22) was

1.35m wide by 0.35m deep and displayed much shallower sides. Its fill was similar to 24, but with moderate amounts of chalk flecking, and it contained no dating evidence. A light grey sandy clay (5) sealed both ditches and may represent weathering or windblown sand which had accumulated after the ditches fell into disuse

Running approximately parallel to the southern road ditch was its northern counterpart, defining a road approximately 13m wide. The earlier ditch cut here (60) was steep-sided with a flat base and a maximum depth of 0.75m. Its primary fill (44) was a light grey silty clay similar to that seen in ditch 4, whilst the upper fill (43) was a grey-brown silty sand with frequent iron-pan staining. A substantial recut of the earlier ditch had destroyed its southern side, so that its full width could not be determined. The recut ditch (16), 2m wide and 0.8m deep, showed relatively steep sides and a flat base. Its lower fills (42, 32) were light grey silty clays whilst its upper fill (30) was dark brown. From within fill 32, five sherds of Romano-British greyware pottery was recovered. A dark brown silty sand layer (17) appeared to seal both ditches and was probably of similar origin to 5, which sealed the southern ditches

Between the road ditches, a shallow depression 2m wide and 0.2m deep and filled with a light-grey sand (10), extended across the trench on an approximate east/west alignment. Two metres further north a shallow, east-west aligned gully/slot (12) extended across the trench and beyond the trench limits. It was shallow with a slightly rounded base. The fill (13), a grey-brown sand, contained frequent lumps of flint and a moderate amount of pebbles, but no dating evidence. A second much deeper gully (14), 0.25m wide by 0.32m deep, had been cut by 12, therefore destroying its western continuation. No dating evidence was retrieved from its silty-sand fill (15). Features 10, 12 and 14 presumably represent wear and repair of the road.

To the northern end of the trench a natural light grey-white sand extended to the trench edges and was cut by a series of north-west/south-east and north-east/south-west aligned plough marks (63). A modern circular rubbish pit (28), 0.6m in diameter and 0.9m deep, lay to the east of the plough marks and north of ditches 60 and 16

The south-east/north-west aligned arm of the trench contained a natural light grey sand at its western end over which lay an irregular shaped grey-brown spread of sand from which a neolithic flint blade (RF 3; see Fig. 5) was recovered. To the south of this spread was an irregularly shaped pit (66), 0.4m wide by 0.1m deep, containing a dark grey, charcoal-flecked sand (33), which extended beyond the southern trench edge

An area of grey sand at the junction of the two trenches had been cut by rectangular modern rubbish pit (25) which extended beyond the trench edges and to the east. A re-deposited natural orange sand (27) lay over the pit from which an occasional modern concrete fragment protruded. Further east, a 6.5m-wide rectangular feature (19) with gentle sloping sides and a fairly flat base, extended across the trench with its northern limit close to the trench edge. Its maximum depth was 0.5m and it had been lined with a light grey clay (34) which extended over the eastern edge of the feature. Its primary fill was a fine light grey silty sand (20) in which quantities of snails were noted and sampled. Its upper fill (3) was a dark brown loamy sand from which sherds of Romano-British pottery were recovered and a single animal tooth. Part of the north-western edge of the pit had been destroyed by the modern pit 25.

A modern 2m-wide and 0.4m-deep irregularly-shaped rubbish pit (31) had been cut close to the south-eastern corner of the trench and extended beyond.

All features were sealed by a rich dark grey-brown sandy-loam topsoil which contained little occupation debris.

Trench 2

Trench 2 was aligned north-west/south-east and had been positioned to cut two north-west/south-east aligned soilmarks. It was 20m long and 2m wide with a mean depth of 0.3m (12.47m OD). At approximately 5m from the western end of the trench a northeast-southwest aligned "horseshoe"-type land drain with its associated tile sole plates extended across the trench. It had been substantially damaged by later north-west/south-east aligned plough marks. The exposed natural sand varied in colour from a pale orange to the west of the land drain, grey-white in the middle of the trench and a dark brownish-orange to the east. A

shallow linear feature, approximately 0.2m wide, ran parallel to the northern edge of the trench and was filled with topsoil. No archaeological features or finds were observed.

Trench 3

This trench was positioned to ascertain the precise nature and possible date of a series of cropmarks or soilmarks observed on aerial photographs of this area. It was aligned north-west/south-east, was 20m long by 5m wide, and had a mean depth of approximately 0.5m (12.3m OD). The exposed soils reflected geological processes: an orange-brown sand to the west and the east were separated by a 2m-wide band of dark grey sandy clay aligned north/south. Two north-east/south-west aligned modern land drains extended across the trench but were not fully excavated.

Trench 4

Aligned approximately north-east/south-west, the trench was 20m long by 2m wide with a mean depth of 0.3m (13.46m OD). The exposed natural sand was light grey to the north and a light orange to the south with concentrations of ironstone. A series of four north-west/south-east aligned "horseshoe" land drains and sole plates extended across the trench and were not fully excavated. At the southern end of the trench a number of plough furrows were aligned east/west and series of modern postholes from the nursery structures were aligned along the eastern half of the trench.

Trench 5

The trench was approximately 20m and 2m wide by 0.3m (14.86m OD) deep and aligned north-west/south-east. The topsoil was a rich dark loam sealing a shallow "horseshoe"-type land drain with a tile sole plate, aligned NW/SE and continuing beyond the north-western corner of the trench. To the north of the land drain at the eastern end of the trench, the exposed sand was a deep orange colour whilst to the south it was a mottled silver-grey. Two metres from the western end of the trench was a 1m-wide band of shale/cement pieces extending north-east/south-west across the trench. A single modern circular pit, approximately 0.2m in diameter, was observed and east/west aligned plough marks

Trench 6

(Fig. 4; Plates 3 and 4)

This trench was positioned in the north-eastern part of the site and was approximately 22m long by 1m wide. It was aligned north-west/south-east, and increased in depth from 0.3m at its western end to approximately 1.5m (13.34m OD) at its easternmost point.

The eastern end of the trench contained a series of field boundary ditches (36, 54, 59) and their subsequent re-cuts (47, 55, 61). They all had similar characteristics of gentle sloping sides and a rounded base, and while their widths and depths were not full discernable in all cases due to the complex intercutting of these features, they ranged between 1.4-1.8m wide and 0.4m-0.6m deep. The majority of their fills were sandy silts (37, 38, 39, 46, 51, 52, 57, 62) or silty clays (48, 49, 50, 53) with a significant number containing little or no inclusions. Fill 48 from ditch 47 did however contain sherds of Roman pottery and animal bone, while a single fragment of lava stone and fragments of burnt stone were recovered from fill 39 (ditch 61) and fill 46 (ditch 36).

A series of north-east/south-west aligned "horseshoe" land drains cut across the trench at a depth of 0.6m , their frequency increasing towards the eastern end A modern east/west aligned gully ran along the trench, the southern edge of which was defined by thin strips of hardboard.

Trenches 7, 8 and 9

(Plate 5)

These trenches were excavated with the aim of locating remnants of the Elloughton Corn Mill, known to have stood here in the 19th century

Trench 7 was the easternmost trench excavated and it was targetted upon a large earthen mound between a public footpath to the west and a beck known as Main Drain to the east; it had been assumed that the mound marked the site of the mill. The trench was approximately 15m long by 2m wide, aligned north-south, with a maximum depth of 1.7m (12.06m OD). On excavation, the mound was found to consist of a dark brown sandy loam cut through by substantial rubbish pits. The material observed within the earliest of these pits dated to the turn of the century, while the more recent pits were from the latter half of this century. At the base of the trench, a brown sand was exposed, separated from the loam, at the centre of the trench, by a thin band of gravel approximately 1m wide and 0.06m thick, tapering to the south. No dating evidence was recovered from below this band of gravel and no structural or other evidence of the mill was observed within this trench.

In a further attempt to locate the mill structure, Trench 8 was opened immediately to the west of the footpath. It was aligned approximately east/west, 3m long by 1.5m wide and had a maximum depth of 0.5m (13.79m OD). At its eastern end a yard surface or hard standing (18) was exposed. It was constructed of irregular limestone pieces, cobbles and bricks, packed with *re-used* mortar fragments (Plate 5); a bone-handled knife was recovered (RF 1; see Fig. 5). This surface had been laid directly onto the natural sand (2). To the west of the yard was a substantial spread of domestic refuse (9) of a late 19th or early 20th century date which in turn had been sealed with a dark brown loam similar to that found in Trench 7.

A third trench, Trench 9, was excavated here in an attempt to locate any surviving mill structures, or evidence of same, within the area of the mill. This trench was approximately 12m long by 1.5m wide and aligned NNE/SSW. It was *c.*1m deep, and cut into a mottled dark brown sand over which substantial dumping of glass and 20th-century debris had been deposited. Although brick rubble survived on the surface of this trench there was no substantial evidence to suggest it was the demolition material from the mill.

4 THE FINDS

4.1 The pottery

Peter Didsbury, Consultant Archaeologist (Ceramics)

Introduction

A total of 62 sherds of pottery, weighing 2029g, was recovered. The material may conveniently be divided as follows:

Romano-British (from contexts 1, 3, 8, 10, 20, 32, 48):
25 sherds, weighing 247 grams, and having an average sherd weight (ASW) of 9.88 grams.

Modern (from context 9):
37 sherds, weighing 1782 grams, and having an ASW of 48.16 grams.

Catalogue

Context/ vessel	Number/ weight (g)	Remarks
1.1	1/7	RB greyware body, fabric BL2 QA.
3.1	1/38	RB greyware base, fabric GB1/2 QA.
3.2	1/23	RB greyware, lower body of ?jar, fabric BL2 QA.

8.1	4/3	Vesicular scrap, presumably RB, fabric RB3 UI.
10.1	1/11	Vesicular rim, fabric BL4 CH/SH (?). Rather globular, everted rim jar, rim diameter c. 160 mm, rim EVES 0.10. Very abraded.
10.2	1/42	RB greyware body, fabric GB2 QA, rather thick-walled at 11mm.
10.3	5/14	Vesicular scrap, fabric BL3 UI.
20.1	1/26	Out-turned rim of bowl of pie-dish form, fabric BL2 QA. Rim diameter 200mm, rim EVES 0.22
20.2	1.4	RB greyware body, very worn, probably originally fabric BL2 QA.
20.3	1/8	As 20.2.
32.1	3/25	Simple rimmed dish with bead formed by externally grooved rim. Joining sherds. Fabric BL2 QA, rim diameter 200 mm, rim EVES 0.18
32.2	2/3	RB greyware bodies, fabric GB1, essentially un-tempered, from a thin-walled vessel
48.1	2/11	Joining sherds from the footring of a samian jar/flagon form, probably Central Gaulish fabric. Basal diameter c. 50mm, basal EVES 0.85.

Note 1: the fabric codes employed in the above catalogue are those devised for use in quantifying the assemblages from Glebe Farm, Barton (Didsbury, forthcoming).

Note 2: Context 10 also included a sandstone pebble, possibly burned, weighing 10 grams.

The modern material from context 9 has not been divided into vessels, but is quantified by ware, as follows:

Ware type	**Number/ weight (g)**
Marmalade jars	4/680
Transfer-printed white earthenware (tablewares)	13/258
Plain white earthenware	2/32
Bone china/porcelain	3/46
Colour-glazed wares	3/58
Late Blackware pancheon(s)	2/162
White-dipped ware pancheon	1/36
Brown English Stoneware/Earthenwares (kitchenware)	7/358
Teapot cover and spout, 2 vessels	2/152

Note 3: a large rim-sherd from a moulded glass milk-jug, weighing 82 grams, was also recovered.

Discussion

THE ROMANO-BRITISH MATERIAL

The greyware fabrics present are without exception consistent with an origin in the North Lincolnshire kilns which were supplying southern East Yorkshire before the rise of the Holme upon Spalding Moor industries in the early third century.

A second-century date for most of this material is also largely borne out by a consideration of the only four vessels the form of which offers scope for chronological determination:

Vessel 20.1 is a common second-century type, essentially copying Antonine BB1 forms. The fabric of the other greywares in this context would be very consistent with such a date.

Vessel 48.1 is of second-century date (Hadrianic/Antonine), and is of Central Gaulish origin. Many of these jars/flagons do not have established form numbers, but cf. Drag. 67 and Déchelette 72 for basic type (pers. comm. Brenda Dickinson).

Vessel 32.1 is unfortunately a long-lived form, with a currency from at least the earlier second century through to the end of the Roman period. It may be compared to Gillam Types 317 (AD 130-220, with basal chamfer, as in example under discussion), 319 (AD 200-350), and 320/321 (both AD 300-350). The type is particularly common in the first half of the fourth century in the Humber region, though the dark- faced, light-bodied fabric of the example under discussion might incline one to prefer a second-century date in this case. The fine fabric of 32.2 would also lend plausibility to such a date.

Finally, vessel 10.1 is a very abraded small jar in vesicular fabric, which is hard to date with any degree of certainty. Its form would be unsurprising in second-century greyware vessels from the region, and it is difficult to see it as having a place in the third- and fourth-century calcite-gritted East Yorkshire repertoire, so it is probably best on balance to view it as sharing the second-century date proposed for the rest of the assemblage.

THE MODERN MATERIAL

This may be passed over with little comment. It is dominated by transfer-printed white earthenwares (Creamware and Pearlware are entirely absent), and common Late Victorian and post-Victorian kitchen products. The assemblage is entirely consistent with a later nineteenth- or earlier twentieth- century date. A minimum *terminus post quem* is provided by the marmalade jars, four of which are Maling (Newcastle) products bearing printed reference to an exhibition prize awarded in 1862, though this inscription continued in use for some time afterwards, at least 40 years. The Hartley's base marked "Regd. Trade Mark" suggests a date post *c.* 1875. the date bracket for this deposit thus appears to be *c.* 1875-1900+ (pers. comm. Dennis Northmore).

Conclusions

A small and generally rather abraded assemblage of Romano-British material, largely coarseware but including a single samian vessel, can probably be dated with some confidence to the second century AD, with the rider that a fourth-century date is at least conceivable for contexts 10 and 32.

The modern material from context 9 is consistent with a deposition date after 1862, and possibly as late as the earlier twentieth century.

4.2 **The flints**

Ruth Head

A collection of three worked lithics was found during hand cleaning, after the

machining of Trench 1. Two of the pieces were found above a linear feature filled with gravel. Both of these flints are of the lower chalk material (Head 1995), but originate from different nodules of flint. One of these is a chunky, large flake removed from an opposed platformed core. Several of the flake scars on the dorsal face have hinge terminations. It has been removed from the core by soft hammer technology, and is utilised along the edges. The other piece is a heavily abraded chunk, which has a couple of flakes removed. Both pieces have some orange patination from the gravel deposits, and are of quite poor quality flint, with large cherty inclusions. The quality of this flint would have made knapping very difficult. The third piece originates from the same trench but not in close proximity to the other two flints. This bladelet is made from a better quality till flint - Till A flint (Head 1995) - and has semi-abrupt retouch along the mid-section of the right edge on the ventral face, and appears to have been utilised. It has been removed from a single platformed core by soft hammer technology.

The small quantity of flint within this assemblage makes the dating of the lithic material very difficult. However, it is unlikely that the bladelet is of a Mesolithic date, due to its size and certain characteristics, and is probably later in the prehistoric chronology. It would not look out of place amongst a Neolithic assemblage. The other flake is unlikely to be earlier than Neolithic, but could be of a later date.

Catalogue

RF 3, u/s Trench 1

(Fig. 6) Bladelet, complete with plain striking platform and diffuse bulb of percussion. Semi-abrupt retouch along mid section of right edge on bulbar face. Four blade-like flake removals on dorsal face all removed from single platformed core. Retains 20% original cortex along left edge. Till A flint

Length 53 mm Width 10 mm Thickness 6 mm Weight 2.8g

RF 4, u/s Trench 1

Chunk of lower chalk flint. Heavily abraded. Patinated in places. Retains 10 % original cortex. Three small flake removals. Poor quality flint with several large cherty inclusions.

Weight 38.2g

RF 5, u/s Trench 1

Flake of lower chalk flint patinated to reddish grey colour. Complete with large plain striking platform and diffuse bulb of percussion. Utilised along both edges. Nine flakes removed from dorsal face from opposed platformed core. Flint has several large cherty inclusions. Three of the flake scars have hinge terminations. Retains 5 % original cortex at proximal end.

Length 59 mm Width 36 mm Thickness 12 mm Weight 23g

RF 6

Natural flint. Discarded

4.3 **The recorded finds and bulk finds quantification**

Gail Drinkall

Few finds were retrieved from the site - only eight items were allocated individual

record numbers. These were as follows: four worked flints (see report, above), all from unstratified areas; a sherd of glass found pressed into the surface of context 11; three iron objects from context 2 (allocated one recorded find number) which require X-radiography; a post-medieval knife blade with a decorated bone handle, and a possible piece of wood. The latter came from a Roman context; following conservation it was found to be badly decayed bone. The glass fragment could be of Roman manufacture, but this should be confirmed by a specialist.

Bulk finds:

Oyster shell	9 fragments (discarded)
Lava quern	1 fragment
Stone	49 fragments
Daub	2 fragments
Slag	1 fragment

The stone requires petrological identification.

5 EVALUATION OF BIOLOGICAL REMAINS

John Carrott, Allan Hall, Michael Issitt, Deborah Jaques, Harry Kenward and Frances Large (Environmental Archaeology Unit, University of York)

Summary

Eleven samples of sediment from Roman deposits revealed by excavations at Welton Low Road, Elloughton, near Brough, were submitted for an evaluation of their bioarchaeological potential. Three selected samples were processed.

Small numbers of generally rather poorly-preserved plant and invertebrate remains (mostlt insects and snails) were recovered from a Romano-British boundary ditch. Conditions in the ditch were certainly wet at the point of deposition of these deposits, and the surounding vegetation, at least close to the ditch, was probably mostly herbaceous 'weeds'. There was little evidence of more direct human influence.

It is recommended that further work be carried out on insect remains from context 50, and that these deposits should not be destroyed without appropriate excavation and sampling.

Introduction

Excavations were carried out by Humberside Archaeology Unit at Welton Low Road, Elloughton, near Brough, during 1996. Eleven General Biological Analysis samples ('GBAs' *sensu* Dobney *et al.* 1992, nine fragments of animal bone, and three small bags of hand-collected molluscs, were submitted for an evaluation of their biological remains. The material came from ditches of Romano-British date, associated with a Roman road and with field boundaries.

Methods

All of the GBA samples, the bone, and the residue, were inspected in the laboratory; subsamples of 1kg were taken from three of the GBAs for extraction of macrofossil remains, following procedures of Kenward *et al.* (1980; 1986).

The flots, washover and residues resulting from processing were examined for their content of plant and invertebrate macrofossils. Notes were made on the quantity of fossils, principal taxa, and main ecological groups.

Results and discussion

The results are presented in trench and sample number order. Context information provided by the excavator is given in square brackets.

Sediment samples

Trench 1

Sample 8/T, Context 32 [Primary fill, north ditch of road]

The residue was very small and consisted almost entirely of comminuted land and freshwater mollusc shell fragments. Identifiable remains included representatives of *Discus ?rotundatus* (Müller), *Cochlicopa ?lubrica* (Müller), *Vallonia* sp., *?Cepaea* sp., *Succinea* sp., *Bithynia tentaculata* (L.), *?Valvata* sp., *Pisidium/Sphaerium* sp. and planorbid snails

The very small washover contained traces of seeds of several weed taxa, together with a trace of charcoal (to 2 mm), an earthworm egg capsule and some modern root fragments. There were no arthropod remains present.

Trench 6

Sample 14/T, Context 50 [Fill of initial west ditch]

Both the very small residue and the small flot contained moderately abundant plant remains preserved by anoxic 'waterlogging'. For the most part they were plants of wetland habitats, notably the rather frequent fruits of fool's watercress (*Apium nodiflorum* (L.) Lag), a species typical of ditches. Also present were a few weeds likely to indicate disturbance in the vicinity.

The flot yielded a modest-sized insect assemblage, though preservation was rather poor. The dominant beetle and bug taxa were those associated with short, probably weedy vegetation (mainly weevils, such as *Apion* spp., *Alophus triguttatus* (Fabricius) and *?Gymnetron* sp.), and water (*Hydraena* sp., *Anacaena* sp., *Dytiscidae* sp.). There were also waterside taxa (e.g. *Lesteva* sp., *Dryops* sp., *Saldula* sp.). The insects are thus in accord with the evidence from the plant remains.

A few decomposers were noted, but all may have come from natural or semi-natural habitats including dung and plant litter. Only *Oxytelus sculptus* Gravenhorst (one individual noted) is regarded as particularly favoured by human activity.

Sample 15/T, Contet 50 [Fill of initial east ditch]

The plant remains in the small flot and tiny residue (the latter consisted mainly of sand) were a diluted subset of those seen in the subsample from Sample 14. The insect assemblage recovered from the flot was also very small, and rather poorly preserved. There were several weevil taxa (*Sitona* sp., *Gymnetron* spp. and *?Alophus* sp.) indicative of short vegetation and two beetles associated with water and water margins (including *Dryops* sp.). A very large subsample (at *least* 10 kg) should give an assemblage of beetles and bugs of considerable interpretative value.

Bone

The very small collection of animal bones represented material from six separate contexts. A total of only nine fragments was recovered, most not being identified to species (see Table 1). Preservation of the material was recorded as poor, and colour as being ginger/brown. A large proportion of the bone was very brittle and eroded.

Table 1: The animal bone from Welton Low Road, Elloughton

Context number	Preservation/ colour	Notes
3	Poor	*Unidentified* - 1 cow-sized shaft fragment
4	Poor	Very eroded and pitted bone surface
Rounded	*Unidentified* - 1 cow-sized shaft fragment	
	Ginger/brown	
5	Poor	*Unidentified* - 3 cow-sized shaft fragments
	Rounded	
	Ginger/brown	
20	Poor	*Caprine* - 1 M1/M2
		Unidentified - 1 sheep-sized shaft fragment
39	Poor	*Horse* - 1 distal metacarpal; possibly chopped
	Rounded	
	Ginger/brown	
48	Fair	*Cattle* - 1 metacarpal (measurable)
	Ginger/brown	

Hand-collected molluscs

The hand-collected material from Context 3 included a small assemblage of highly fragmentary and eroded snail shells - mostly *?Cepaea* sp. with a single *?Succinea putris* (Linné). Additionally, there was a single unidentified snail from Context 4.

Recommendations

It is unlikely that very much more useful information would be obtained from the plant remains by processing larger subsamples of samples from Context 50 or by a more detailed analysis of the material already processed. However the samples from Context 50 will produce interpretable insect assemblages from very large subsamples, providing a reconstruction of conditions in the ditch and of the local vegetation and land use. This material would also be of value in a wider investigation of the relationship between insect death assemblages in ditches and nearby human activity.

The animal bone assemblage is of little interpretative value because of its extremely small size. If further excavation is undertaken, it is doubtful whether any animal bone recovered would be worthy of further, more detailed, study in view of its likely poor preservation

The hand-collected molluscs are of no interpretative value. Processing of a larger

subsample from Sample 8 (Context 32) may yield a moderately large assemblage, but this is likely to be of only limited interpretative value - determination of such factors as water quality would require quantification of the remains at species level, which would be extremely difficult (or impossible) because of the extensive surface erosion and breakage of the shells.

If further excavations do take place on this site then every effort should be made to sample and investigate any revealed deposits. The deposits certainly should not be damaged by development without proper excavation and sampling, and commensurate funding for post-excavation analysis should be made available.

Retention and disposal

The samples from Trench 1 do not need to be retained for bioarchaeological purposes but the samples from Context 50 should be retained for their research potential. All flots and residues should be retained in the longer term.

Archive

All extracted fossils and flots are currently stored in the Environmental Archaeology Unit, University of York, along with paper and electronic records pertaining to the work described here.

6 DISCUSSION AND RECOMMENDATIONS

6.1 Discussion of the site sequence

Although only a relatively small sample of the total development area was investigated, the evaluation has established the extent of surviving archaeological remains across the site, with reasonable certainty. Most of the site, in fact, appears to be devoid of anything other than traces of post-medieval drainage or modern horticulture. Those archaeological features which were present concentrated in and around Trenches 1 and 6, and to a lesser extent in Trenches 7, 8 and 9, in the eastern and south-eastern parts of the site.

The most significant archaeological features were of Romano-British date. Of these, the most readily interpretable were the flanking ditches of the Roman road, the route of which can still be traced heading from the east gate of the walled Roman town at Brough (*Petuaria*). The road runs in a characteristically straight SSW/NNE direction, and has hitherto only been recorded on aerial photographs, such as those of the adjacent field to the east. These excavations have therefore provided the first opportunity for the road to be subject to archaeological investigation outside of Brough itself. The ditches on both sides of the road had been redug at least once, implying that, for some time at least, there was a need to clearly define the limits of the road and to provide it with drainage. The surface of the road itself had not survived later agriculture, though it is assumed that it would have comprised compacted gravel; a gravel-filled slot recorded on the sampled section of road may represent repair of the surface, with gravel being used to infill a deep rut. Insufficient dating evidence was recovered from the small stretch of road examined to indicate how long it had continued in use, though what there was suggests that the roadside ditches were being maintained during the 2nd century, and that use of the road may have continued into the 4th century. It is interesting to note that the route of the road coincides with the line of the main street in the village of Welton, suggesting that use of the road - or at least its influence as a topographic feature - may have continued into early medieval times, though it was overlain by later medieval ridge and furrow, and clearly had little topographic influence by the time of the post-medieval field enclosures. Immediately north of the sampled section of road was a shallow clay-lined pit, the fill of which contained Romano-British pottery; while it seems likely that this feature once held water, its purpose is not clear, and it may be connected more with contemporary use of adjacent agricultural land than with the road itself.

Further Romano-British features were recorded at the eastern end of Trench 6, where a series of roughly north-east/south-west aligned ditches, with subsequent re-cuts, were exposed. Pottery recovered from one of later recuts is of 2nd-century date, making it likely that at least some of these features were contemporary with use of the road. Analysis of soil samples taken from these features indicates that the ditches would have been open features holding water, and that there were areas of disturbed ground nearby, indicative of human activity. The ditches would likely have served as drains and field boundary ditches, part of a Romano-British agricultural landscape. They were frequently recut to define property divisions and to maintain drainage/irrigation. It is not known how close the nearest farmstead and associated

buildings would have been to the sampled ditches, though it seems unlikely that they lay *within* the development area.

The only other archaeological features recorded - an external surface and a spread of domestic refuse - would appear to have been associated with the Elloughton Corn Mill, though thorough demolition has removed all trace of the mill building itself. The earliest records for windmills in Britain show of their existence in the 12th century; these were of post-mill type whilst the first tower mill did not appear until the 15th century. The tower mill was a significant improvement in the design of windmills but did not become common until the 18th century whereafter their popularity increased until their heyday in *c.*1850. The internal diameter for tower mills in the East Riding were generally between 15ft 3in and 27 ft. The structures were nearly always constructed in brick and battered inwards. The majority of mills were covered in tar although a few are known to have been whitewashed (Gregory 1985).

6.2 **Recommendations for the future treatment of archaeological remains on the site**

The vast majority of the site is considered devoid of archaeological features. However, the evaluation has identified two small areas of archaeological significance, both apparently dating to the Romano-British period. The following recommendations as to the future treatment of these remains are, however, only the opinions of the project team, and will not necessarily be those of the local planning committee or their archaeological advisor.

i) In the south-east corner of the development area, the route of the Roman road has been confirmed. There did not appear to be a concentration of contemporary settlement features in the area immediately adjacent to it, though given the small areas sampled, this conclusion is not unequivocal. For this reason, it is recommended that the strip of land 30m to either side of the line of the Roman road is subject to a watching brief - monitoring of below-ground works - during construction of houses, roads or services. This should enable any Romano-British settlement features uncovered there during development to be recorded.

ii) On the east side of the site, running north and south from Trench 6, a sequence of intercutting Romano-British drainage ditches has been located containing organic deposits preserving evidence of the contemporary landscape. Assessment of the soil samples has highlighted the importance of these features and the deposits within them. It is therefore recommended that the course of these ditches be established either through the excavation of a small number of additional trial trenches, or through topsoil stripping of the eastern part of the site under archaeological supervision, followed by small-scale sample excavation. This should enable further dating evidence to be obtained and allow the taking of further soil samples for analysis.

ACKNOWLEDGEMENTS

The evaluation was undertaken on behalf of Messrs. Bean, Bean, Coote and Byass, landowners, through their agents, Carter Jonas, Chartered Surveyors. Thanks are therefore extended to them, and in particular to Mr. Edward Waterson of Carter Jonas for his help and co-operation during the project. The work was carried out to a specification prepared by Ms G. Falkingham, County Sites and Monuments Officer.

The excavations were undertaken by staff of the Unit, under the supervision of John Tibbles: Dave Atkinson, Gail Foreman and Mike Frankland. Voluntary assistance was given by Barry McKenna, Tony and Beryl Clarke, Geoff ? and wife; in addition, Richard Goforth and Natalie Eggett helped while on work experience placements. Pottery identification and spot dating was provided by Peter Didsbury and the finds recording by Gail Drinkall. Work on the biological remains was carried out by the Environmental Archaeology Unit; they are grateful to Humberside Archaeology Unit for providing the material and archaeological information and to English Heritage for allowing Harry Kenward and Allan Hall to work on the material. Initial conservation of the finds, and an assessment of their conservation needs, was carried out by Erica Paterson of the York Archaeological Trust. Staff of the County Estates Drawing Office surveyed in the excavation trenches.

The report was edited and compiled by Ken Steedman, who also contributed to the Discussion and Recommendations. The site photographs were taken by Dave Atkinson, Gail Foreman and John Tibbles; the finished prints are the work of Bill Marsden of BM Photographics. The plans, sections and finds drawings reproduced in the report are the work of Mike Frankland, John Marshall and Janis Collinson. Administrative support was provided by Georgina Richardson.

BIBLIOGRAPHY

Dobney, K., Hall, A. R., Kenward, H. K. and Milles, A. 1992
A working classification of sample types for environmental archaeology. *Circaea, the Journal of the Association for Environmental Archaeology* **9** (for 1991), 24-6.

Gregory, R. 1985
East Yorkshire Windmills, Charles Skilton Ltd. (Cheddar).

Head, R. 1995
The use of lithic material in Prehistoric Holderness, in Van Der Noort, R. and Ellis, S. (eds), *Wetland Heritage of Holderness: An Archaeological Survey*, 311-23, Humber Wetlands Project (Hull).

Kenward, H. K., Engleman, C., Robertson, A, and Large, F. 1986
Rapid scanning of urban archaeological deposits for insect remains. *Circaea* **3** (for 1985), 163-72.

Kenward, H. K., Hall, A. R. and Jones, A. K. G. 1980
A tested set of techniques for the extraction of plant and animal macrofossils from waterlogged archaeological deposits. *Science and Archaeology* **22**, 3-15.

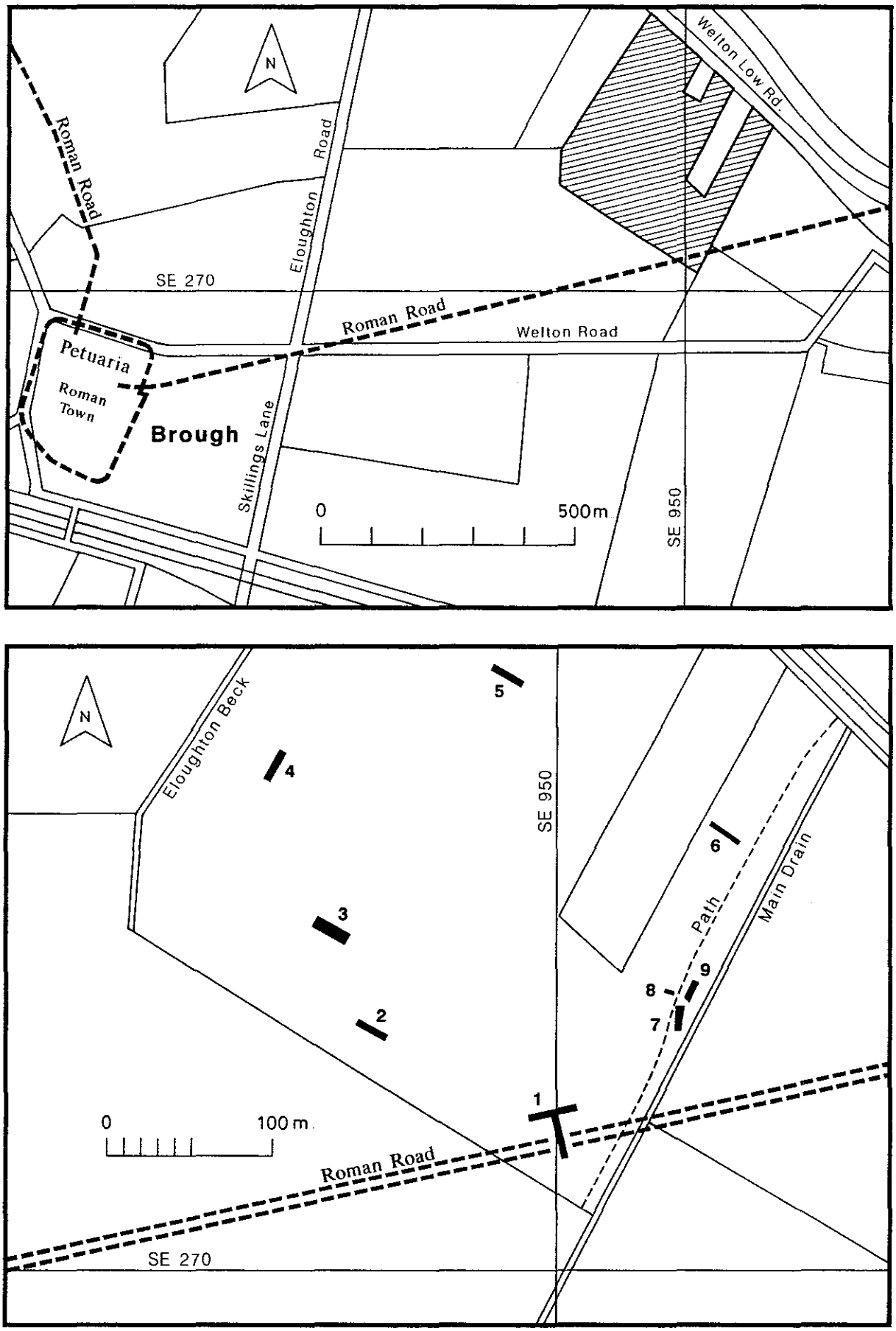

Figure 1: Location maps. The upper shows the position of development area (hatched) and its relation to the course of the Roman road; the lower shows the position of the excavation trenches within the development area. National Grid References superimposed.

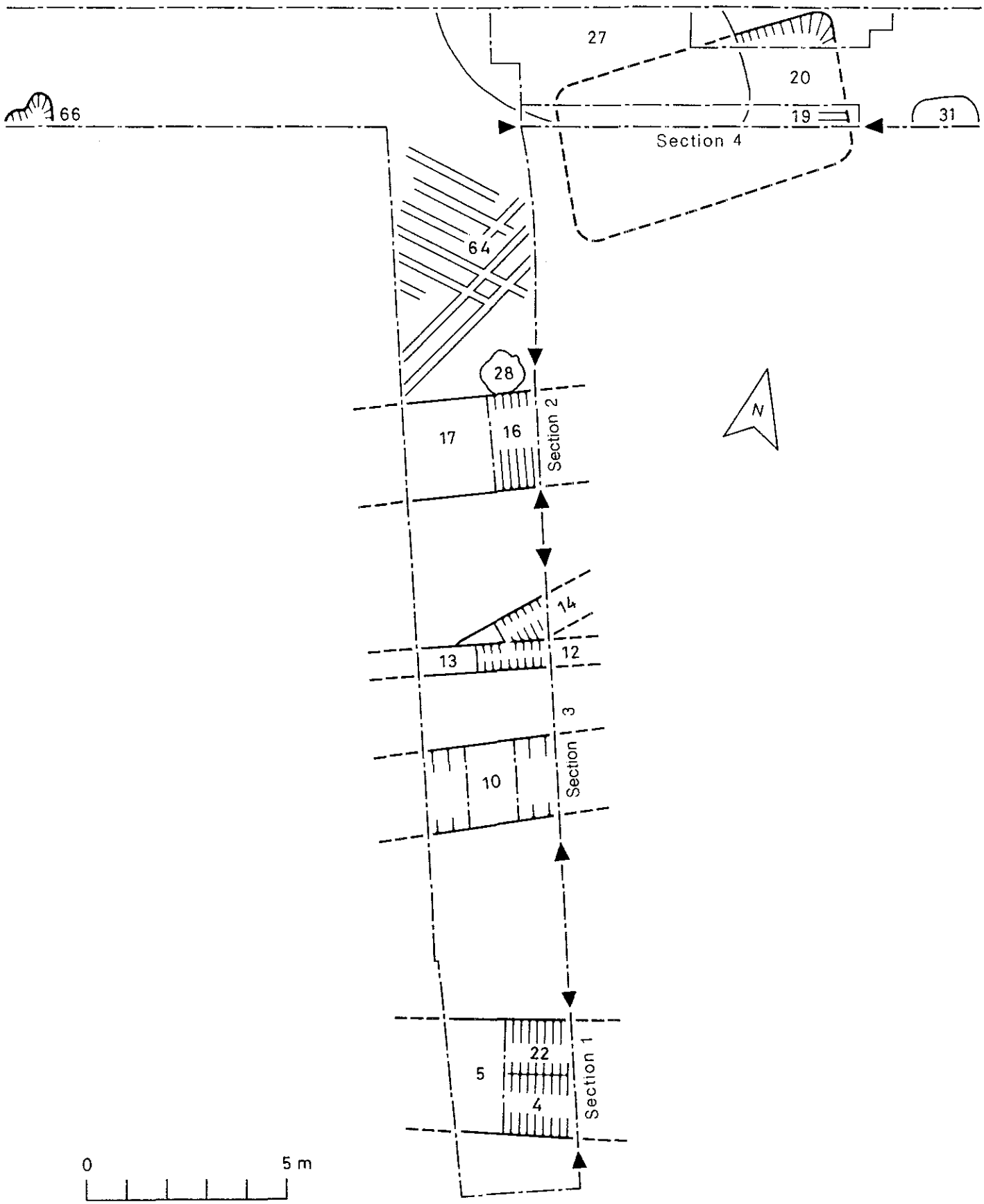

Figure 2: Plan of the excavated features in Trench 1. Positions of sections on Fig. 3 shown.

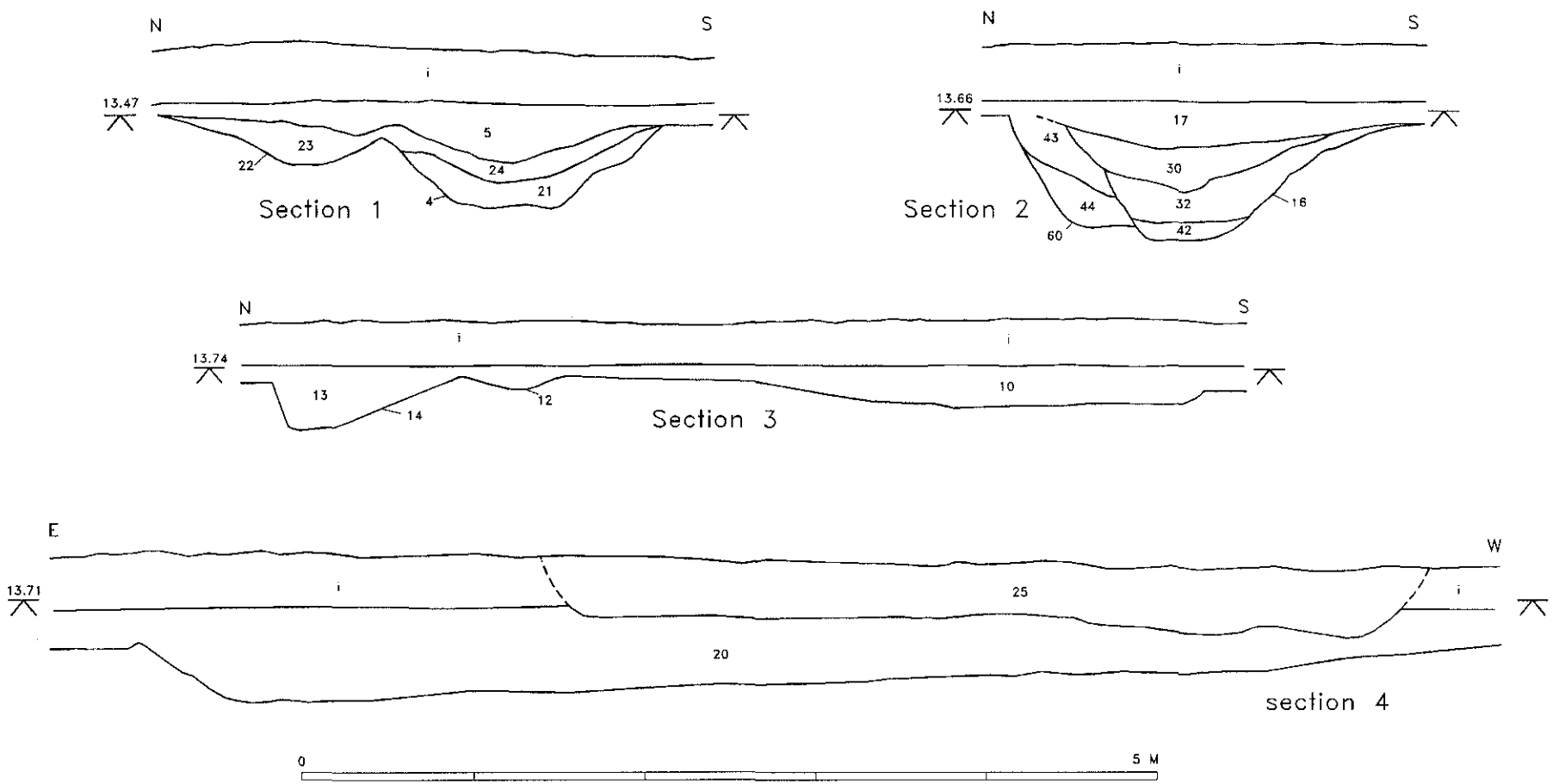

Figure 3: Sections of the excavated features in Trench 1. See Fig. 2 for positions in plan.

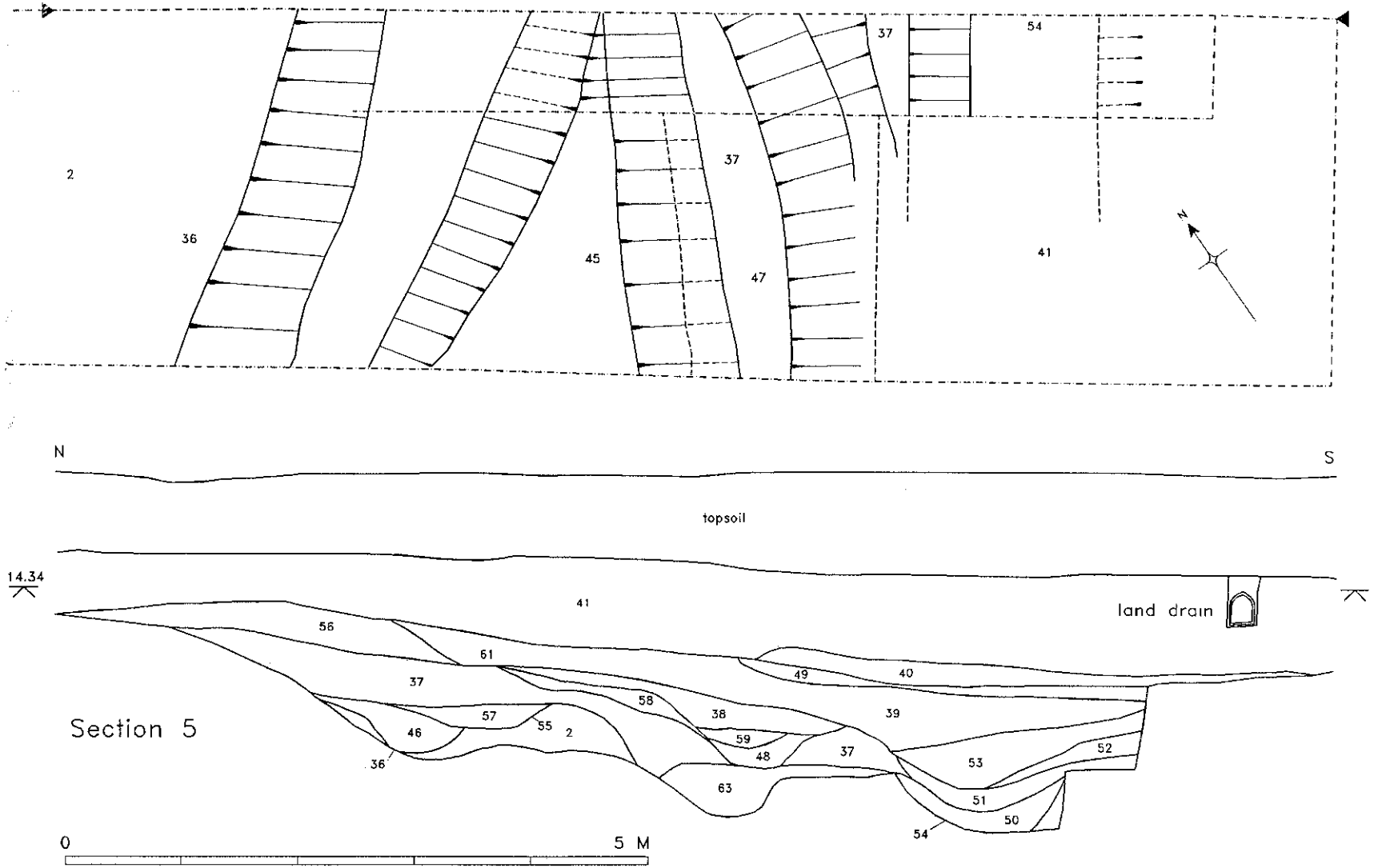

Figure 4: The ditch sequence at the east end of Trench 6, in plan and section.

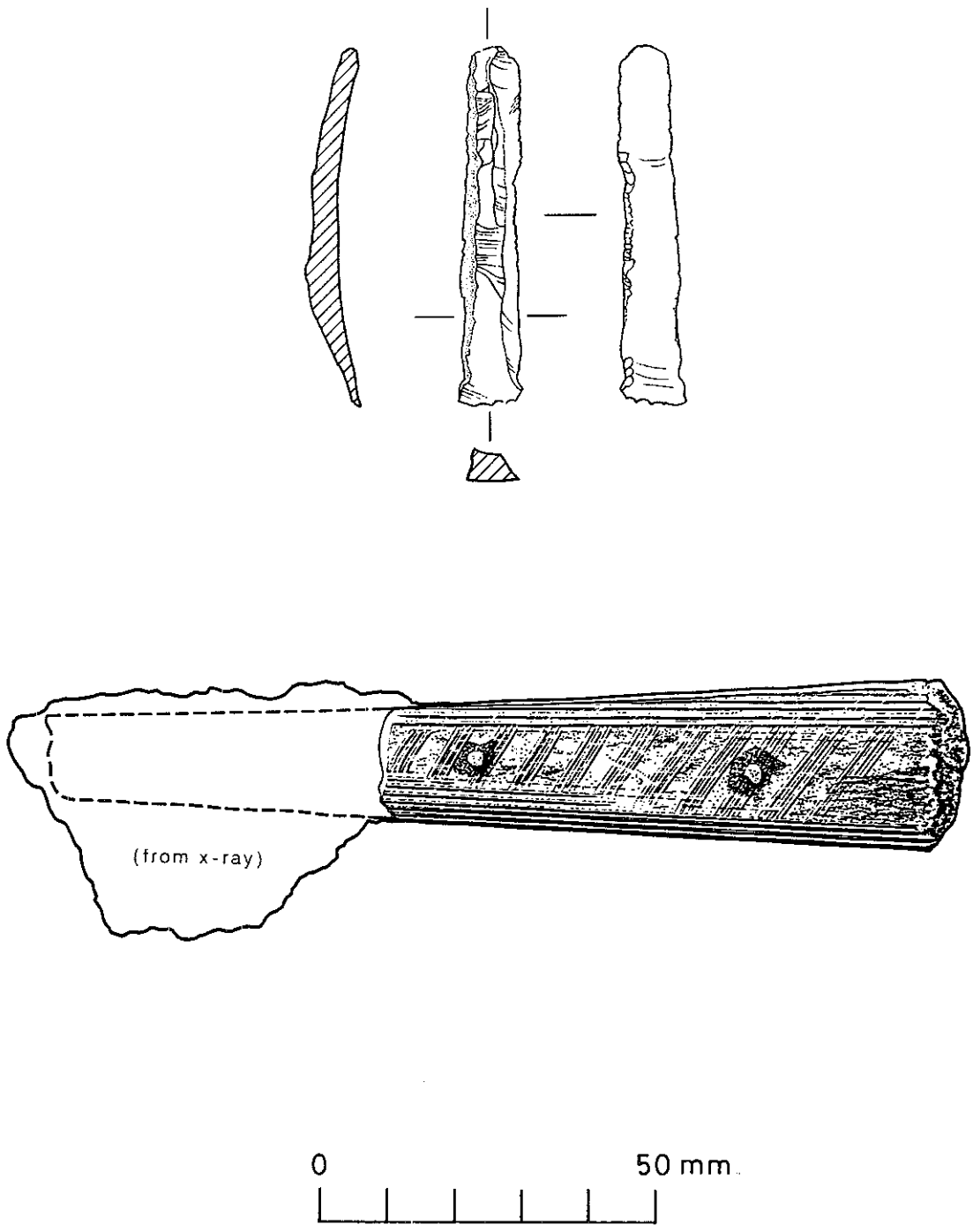

Figure 5: Finds from the excavations: RF 3, a Neolithic flint bladelet; RF 1, a decorated bone knife handle of post-medieval date.

Plate 1: Excavated features in the southern arm of Trench 1, looking south (one-metre scales).

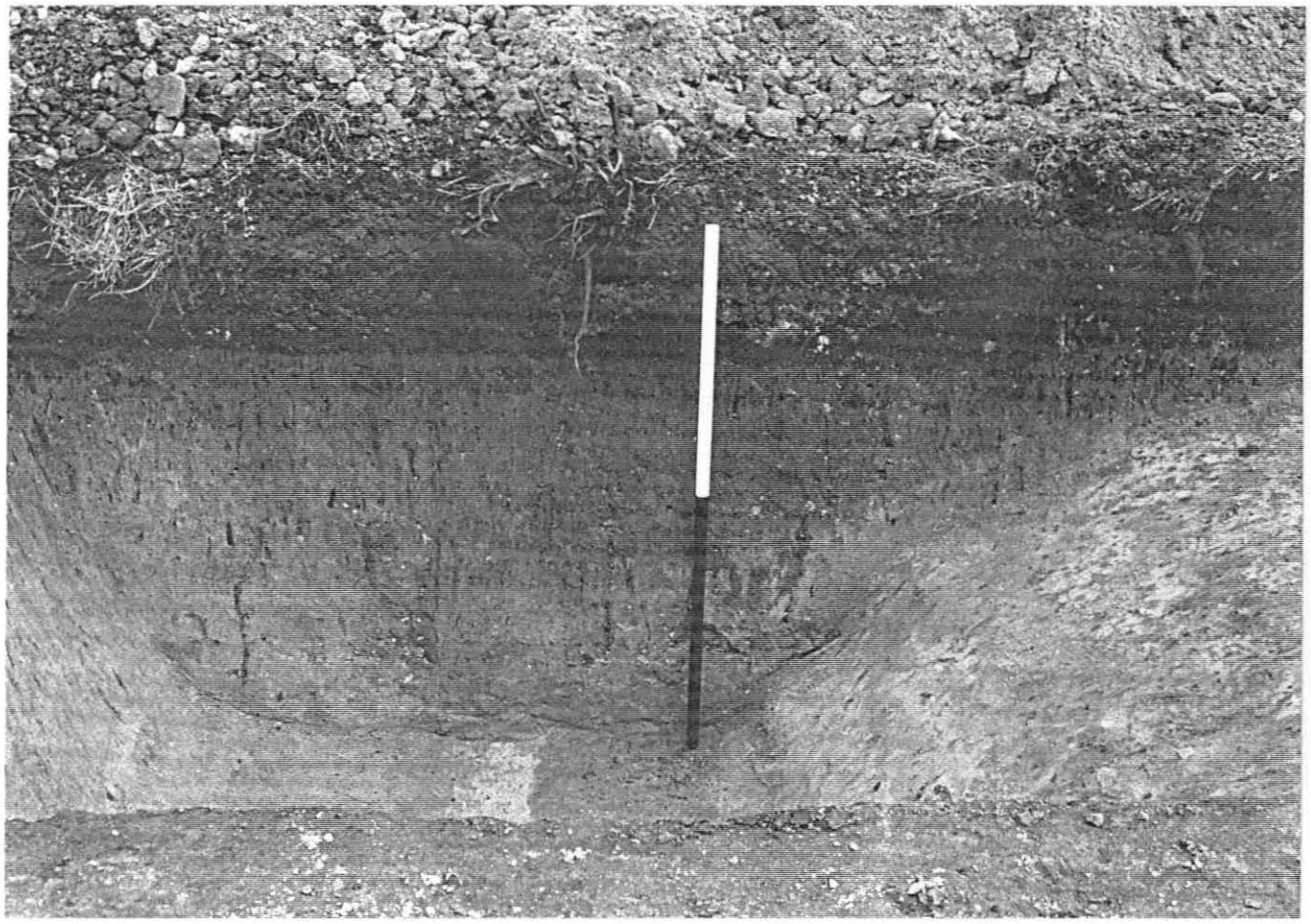

Plate 2: The fills of the northern roadside ditch seen in section, looking east (one-metre scale).

Plate 3: The ditch sequence at the east end of Trench 6, looking east (one-metre scale).

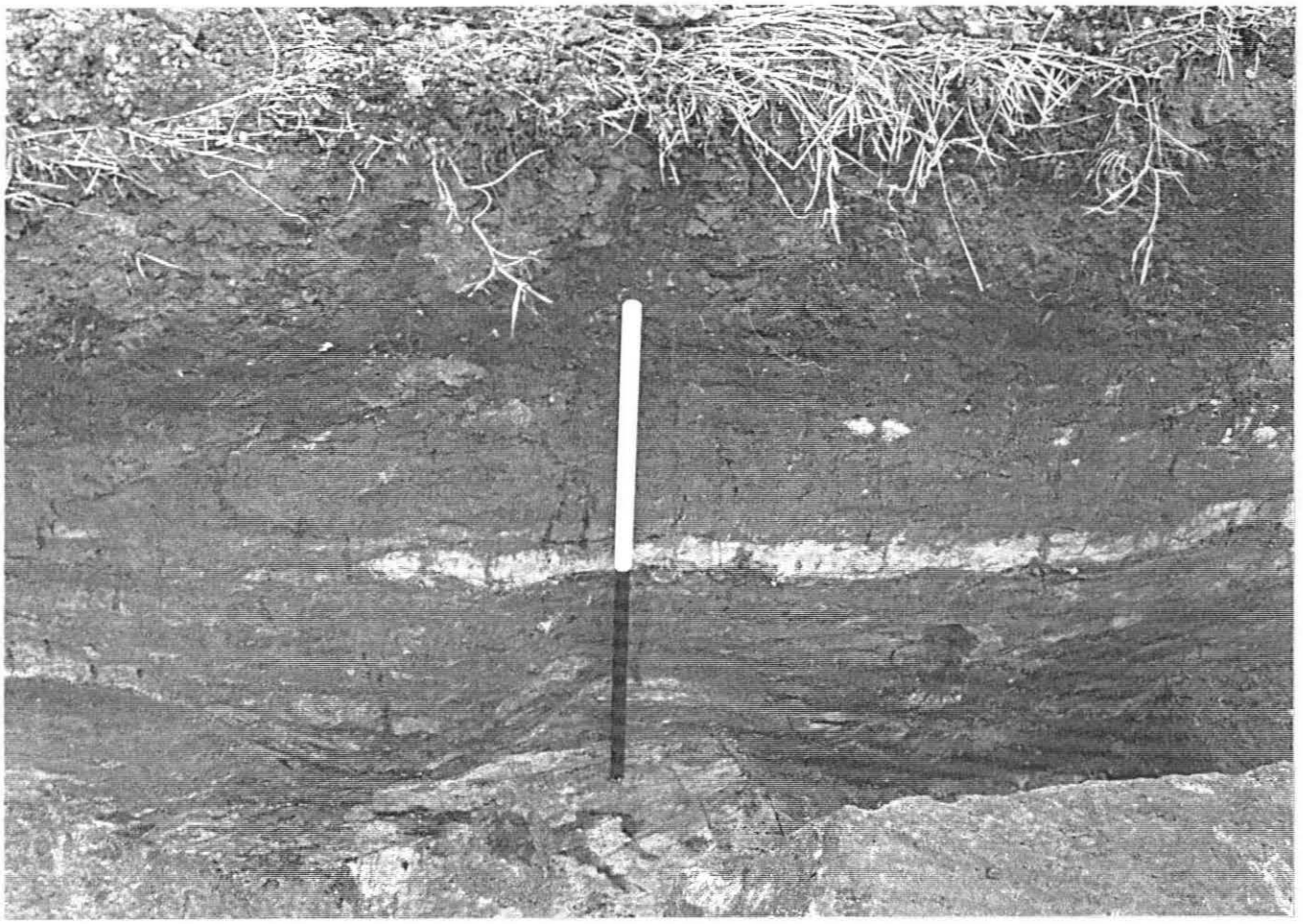

Plate 4: Detail of the fills of the ditches at the east end of Trench 6 (one-metre scale).

Plate 5: Area of yard surface or hard standing in Trench 8, looking east (0.5-metre scale).

Humber Field Archaeology

Archaeological Consultants and Contractors

The Old School, Northumberland Avenue,
KINGSTON UPON HULL, HU2 0LN
Telephone: (01482) 217466 Fax: (01482) 581897
E-mail: hfa@hullcc.gov.uk

Project Management • Desk-based Assessment • Field Survey • Excavation
Watching Briefs • Finds Research • Post-excavation Analysis • Inter-tidal Work

Humber Field Archaeology is an independently-funded part of the Humber Archaeology Partnership, a partnership serving The East Riding of Yorkshire Council and Kingston upon Hull City Council