Humber Archaeology
Partnership

FURTHER TRIAL EXCAVATIONS

AT

KINGSWOOD, KINGSTON UPON HULL

March 1997

a partnership serving

The East Riding of Yorkshire Council
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North Lincolnshire Council

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Contents

1 SUMMARY

In March 1997, trial excavations were undertaken by the Humber Archaeology Partnership, on behalf of The Kingswood Development Company Limited, on land at Kingswood, Kingston upon Hull, close to the site of the former Gibraltar Farm. The work was undertaken to define the character and extent of a Romano-British settlement site, the presence of which had been suggested by the results of an episode of trial excavation carried out the previous year, part of a staged scheme of evaluation of *c.* 276ha of land earmarked for development.

Five trenches were excavated in one field, positioned so as to best sample any archaeological deposits within that part of the evaluation area. In the event, only two trenches (13 and 14) produced evidence of Romano-British occupation. The eastern half of Trench 13 contained a dense concentration of features, mostly shallow ditches, gullies and slots, while to the west the subsoil into which these features had been cut sloped down gently to what may have been the contemporary riverbank. Well-preserved organic deposits were recorded at the base of this slope, analysis of samples of which recorded a mixture of aquatic organisms, a terrestrial flora and fauna from disturbed habitats, perhaps grazing land, and remains likely to have been transported from in or around buildings. The deposits also contained large fragments of broken Roman pottery, in a fresh condition, indicating that this was a place of primary refuse disposal. Trench 14, in the centre of the site, encountered a possible trackway, basically a worn linear hollow, running much of the length of the trench, the infill of which also contained pottery of Roman date. Most of the pottery was of late 2nd- or early 3rd-century date, and the wares present indicate trading connections with both the Continent and the settlement's neighbouring regions. A substantial clay bank, likely to be of medieval date and presumably a flood-defence, overlay the probable Roman river bank, though most post-Roman features testified to agricultural practices associated with occupation of the former Gibraltar Farm.

It is clear from these excavations that a Romano-British settlement site survives in the area south of the site of the farm buildings of the former Gibraltar Farm, and adjacent to, or partially beneath, the surviving orchard associated with that farm. A number of such riparian sites are known or suspected along the River Hull in the northern part of the City, but this is the first where the contemporary riverbank has been located or sampled. The results of this work have provided valuable information for the planning and execution of larger scale excavations on the site prior to development.

2 INTRODUCTION

2.1 Circumstances of the fieldwork

This report presents the results of trial excavations carried out over a two-week period in March 1997 by the Humber Archaeology Partnership, on behalf of The Kingswood Development Company Limited, on land at Kingswood, Kingston upon Hull (Site code KWH 97; National Grid Reference TA 0824 3417). The work, adjacent to the site of the former Gibraltar Farm, followed an earlier episode of trial excavation carried out in November 1996, as part of a staged evaluation of an area of *c.* 276ha of land proposed for development. The earlier trial work (Atkinson and Steedman 1996) had involved the excavation of ten trenches, targeted on specific anomalies detected on a previous geophysical survey, and resulted in the identification of two main areas of archaeological significance.

The first of these, at the junction of the Foredyke and the River Hull, was the site of medieval settlement remains, while further north, near the former Gibraltar Farm, a single trial trench encountered features of Roman date, implying the presence of a Romano-British settlement site there. The single trench did not provide sufficient information as to the extent of the settlement, particularly as geophysical survey of the area to the north of it had proved ineffective due to extensive ground disturbance there; the latter was, at the time, interpreted as the result of demolition of the farm buildings and dispersal of the remains through ploughing, though has since proved to be due to a number of lagoons formed to receive slurry from the works associated with the ill-fated Ennerdale road tunnel. A further programme of trial trenching was proposed, therefore, with the express aim of better defining the extent of the Romano-British settlement. This information would enable the formulation of a strategy for the future treatment of these remains; at the request of the clients, this was to involve the preparation of a project design for the excavation of the Gibraltar Farm site in advance of development. A specification was produced for these trial excavations by Mr. D. Evans of the Sites and Monuments Record (ref. DE/January 1997), in response to which the Field Section of the Partnership prepared a project design (dated 4/2/97) for submission to the client through their agents The Barton Willmore Planning Partnership. This was accepted, and work began on site in March 1997.

2.2 Archaeological and historical background

The discovery of the Romano-British features during the previous evaluation (in Trench 6), confirmed the suspicion, stated in the desk-based assessment, that settlements of that date might be encountered in the area adjacent to the river (Hemblade and Steedman 1995, 24). Romano-British finds and features have been discovered during housing developments along the west bank of the River Hull directly opposite the evaluation area, and research has shown these to be part of a string of settlements occupying both banks of the river during the Roman period from as far south as the Sutton Fields Industrial Estate. There was therefore no reason to suppose that the Trench 6 features did not represent a part of a more extensive settlement site, of unknown extent, hence the need for the trial excavations reported on here.

3 THE EXCAVATIONS

3.1 Methodology

The trial excavation was undertaken by a team of six over a two-week period in March 1997. Five trenches were excavated, numbered 11-15, positioned with respect to the proposed positions in the specification (see Fig. 1). The exact positions of the trenches was surveyed by EDM, in relation to a site survey supplied by the clients.

Initial excavation and stripping of topsoil was carried out using a mechanical excavator with subsequent cleaning and excavation by hand; the exception to this was the machine-excavation of a number of sondages to investigate the nature of certain subsoil layers. The standard Partnership recording procedures were used throughout, with each identified feature being allocated a context number and written description on *pro forma* sheets. A colour and black and white photographic record was also maintained. Finds recovered from each feature were labelled accordingly, and those of special interest were allocated individual Recorded Find (RF) numbers. Soil samples were taken for evaluation of their bioarchaeological potential.

Note that context numbers commenced at 100 to avoid overlap or confusion with the contexts used in the earlier trial excavations (site code KWH 96), and RF numbers commenced at 500 for the same reason.

3.2 The results

Following assessment of the finds and spot-dating of the pottery, it was possible to assign features within the trenches to a number of distinct chronological phases, as follows:

Phase 1	- Romano-British
Phase 2	- Medieval
Phase 3	- Post-medieval
Phase 4	- Modern

Only Trench 13, and to a lesser degree, Trench 14, contained significant archaeological deposits, and they will be discussed in some detail below. The remaining trenches - 11, 12 and 15 - will be treated in a more cursory manner.

Trench 13

(Fig. 2)

This trench was the southernmost trench excavated, lying close to the old orchard. It was aligned north-east/south-west, and measured approximately 31m in length and 1.5m wide, with a depth (prior to the excavation of features) varying between 0.6m-1.2m (1.69m-1.74m OD). Features of all phases were recorded in this trench, the earliest of which cut into a grey-brown alluvial silt (106) which extended across the whole of the trench and which appeared to slope gradually downwards towards the

southern end of the trench, from a point about halfway along its length; the sloping edge may have formed the edge the River Hull during the Roman period; this will be further discussed below.

Phase 1 *Romano-British*

In a corner of the trench at its northern end was recorded one edge of a probable ditch (165) Its was at least 0.6m deep, with a relatively steep side leading to a base which lay beyond the trench edge Two fills were identified within the ditch: the primary fill, 140, a light grey silty clay, and 139, a light brown silty clay The former contained Roman tile, daub, worked stone (RF 522) and Romano-British pottery, whilst the latter contained only a few sherds of pottery.

Just south of 165, a north-west/south-east aligned ditch (160) extended across the trench. It was 1.2m wide and 0 44m deep, with relatively steep sides leading to a V-shaped base. From within its fill, a dark grey silty clay (112), several sherds of Romano-British pottery, including samian ware (possibly Central Gaulish) were recovered, along with other occupation debris - fragments of hypocaust tile, animal bone and oyster shell. Cutting ditch 160 on its southern edge was a shallow linear, or roughly oval, pit (159), 2.1m long, 1.1m wide and 0.11m deep. The shallow sides led to a near flat base, and contained an orange-grey silty clay (111) from which fragments of daub, hypocaust tile, animal bone, an iron spike (RF 514) and fragments of Romano-British pottery were recovered

A short distance west of 159, and on a similar alignment, an east/west aligned shallow gully (166) protruded into the trench from the north-west trench edge. It appeared butt-ended at its western end, and increased in depth and width towards the east. Its exposed width varied between 0.12m and 0.3m and its depth increased to a maximum of 0 12m before truncation by ditch 168 (see below) The gully contained a grey silty clay (116/156) which contained frequent charcoal and pebble inclusions amongst which were found a number of Roman tile fragments, iron and copper objects (RF's 518, 521) and several sherds of Romano-British pottery. A 0.46m-wide posthole (170) had been inserted through the gully fill 166 into the underlying clay; a few fragments of animal bone and pottery were recovered from its fill (171).

Extending across the trench, a shallow north-west/south-east aligned depression (168) cut the shallow gully 166. It was 2m wide and 0 08m deep with a wide flat base containing a grey silty clay fill (138) from which animal bone, brick, tile, daub, vessel glass (RF 502) and pottery were recovered.

The southern edge of gully 166 was partially broken by the curved northern terminal of another linear feature, 137 (=169), running approximately perpendicular to it This was a vertically-sided feature, at least 2 8m long by 0.7m wide, with a maximum depth of 0.5m, and a relatively flat but irregular base. From within its grey-brown silty fill (136/167) a substantial assemblage of occupation debris was recovered, comprising of pottery, animal bone, roof tile, daub and a single iron object (RF 520) were recorded. It is possible that feature 137 had originally contained a structural feature, such as a wall foundation, the main elements of which had later been robbed upon disuse of the building; two other linear features - 166 and 159 - which ran perpendicular to 137, although significantly shallower, may also represent the robbing of foundations of the same building, albeit foundations which were less substantial than that removed from 137 It is also interesting to note that two of the contexts (116 and 136) which contained the latest diagnostic pottery types from these excavations - namely mid to later 3rd-century straight-sided flanged bowls - were fills of these features; this would accord well with the interpretation that they represent the disuse of, at least part of, the settlement.

West of features 137 and 166 were a number of smaller features. Extending into the trench from its north-western edge was the butt end of a narrow gully (175), 0 2m wide and 0 1m deep Filling the gully was soft grey-brown silty clay (176), devoid of finds. Around 2m south-west of 175 was an irregularly-shaped pit (174), 0.68m long by 0 34m wide and 0 2m deep. It had near vertical sides and a flat base, and contained the bones of an immature horse (see Part 5, Assessment of the biological remains) within a soft grey-brown silty-clay (173); a few sherds of Romano-British pottery were also recovered. Further south, close to 137/169, was a shallow circular pit (189), 0.25m in diameter and 0.08m deep, which contained a grey silty clay (188) devoid of finds.

Between the above features and the break of slope marking the possible riverbank, lay a shallow, slightly curving, gully (163), which had probably been dug for drainage. It extended from the edge of the trench for a distance of about 3m, and had a maximum width of 0.3m and a depth of 0.12m, with a slight fall in gradient towards the south-east. From within its fill of grey-brown silt (164) fragments of daub, a fragment of lead (RF 526) and sherds of Romano-British pottery were recovered.

Sealing the majority of the Phase 1 features within the north-eastern part of the trench was a 0.05m-thick spread of a dark grey silty-clay, 117, which contained Roman pottery and animal bone; it is presumed to have been created by the merging of the fills of the underlying features and remnants of the contemporary Roman topsoil.

Two sondages were hand-cut through the later medieval clay embankment (180), to disclose the original slope of the early riverbank which surfaced within the trench at approximately 13.5m from its south-western end. A 0.08m-thick layer of soft dark grey silty clay (172) was recorded beneath the bank, sitting against the slope, and it is presumed to represent material which accumulated against the river bank during the use of the adjacent settlement. At the base of the slope a number of deposits suggested a combination of both waterlain accumulation and refuse dumping from the settlement. A brown/black silty peat (187) and a brown silty clay (186) exposed within the machine-cut sondage at the southern end of the trench are likely to represent riverside vegetation and accumulation (at 1.32m OD), while at the extreme south-western end of the trench, one edge of 190, a possible linear feature (or river edge?) was recorded running across the trench at an approximate north-west/south-east alignment. It was at least 1.8m wide and 0.5m deep, and was cut into a dark grey, silty clay (185). Feature 190 contained two fills: a primary fill of dark grey silty clay (184) and a secondary fill of a dark grey-brown silt (183). The latter containing substantial deposits of Romano-British pottery in a freshly-broken state.

Phase 2 *Medieval*

Partially overlying the riverside deposits of Phase 1, and sealing the sloping riverbank of that phase, was a substantial bank of clay (180). The bank was *c.* 13m wide and survived to a height of 1.5m (1.3m - 2.8m OD), though erosion and later ploughing are assumed to have reduced its height significantly.

Although no dating evidence was recovered from this feature, it clearly overlay features of Roman date, and nothing in its character suggested that it was contemporary with the post-medieval features which cut it and overlay it (see below); for these reasons it is presumed to be of medieval date, part of a programme of flood protection works known, or suspected, to have taken place along this stretch of the river.

Phase 3 *Post-medieval*

A substantial steep-sided feature (104), at least 3.2m wide and 0.9m deep, cut into the Phase 2 bank and the earlier Phase 1 riverside deposits at the south-western end of the trench. This feature may represent a ditch (?the northern continuation of the possible mill leat recorded in the earlier trial excavations nearer the Foredyke to the south), or may have been a large pit (of unknown function). A 0.25m-thick layer of compacted chalk pieces (182) had been laid (at 1.62m OD) over the soft underlying deposits in an attempt to consolidate the base of the feature. The primary fill was a soft, dark grey fine silt (181), appearing to be waterlain, whilst the later fills (152, 153, 105) were much coarser with frequent inclusions, and probably represent infilling of the feature, perhaps over a protracted period. Within these upper fills were a number of badly decayed timbers and unworked branches (146, 147, 148, 149, 150 and 151) which may have originally been structural fragments disposed of in the pit/ditch; they included a square-sectioned timber (146), measuring 0.12m by 0.12m. A slightly more coarser sediment (152), a brown silty clay with coal, chalk and tile fragments, had build up on the western side of the timbers, and on the eastern side the fill (153) was similar but with far less inclusions other than several complete late-medieval/post medieval bricks dumped along its eastern edge. The upper fill of the feature (105), a firm gritty silt, contained cinder and coal inclusions with fragments of clay-pipe and pottery sherds dating to the 18th/19th century.

A 0.4m thick layer of blue-grey clay (194), similar in nature to 106, extended over the majority of the trench and sealed the features of Phases 1 and 2. Modern and 18th century land drains (188, 130, 170) were also recorded cutting into this material. A light grey silty-clay (102), varying in thickness between 0.10m and 0.3m, represented the post-medieval topsoil horizon which extended over the majority of the trench, with

the exception of its north-eastern end A hard-standing (101) presumed to be associated with the later farmyard, comprised black ash and clinker (furnace residues) lay over (102), shallowing to the north. Here, an accumulation of material (109) had collected in a hollow; it contained a substantial assemblage of relatively modern corroded iron objects, including an axe head. Pottery associated with this accumulation was dated to the 18th/19th century

A timber post, 0.3m diameter, had been driven into the underlying Phase 2 bank (within post hole 107) It was dislodged during removal of overburden by machine, but is assumed to have been contemporary with the farmyard surfaces described above.

Phase 4 *Modern*

At the northern corner of the trench the outer edge of a modern settling lagoon or slurry pit (113), associated with construction of the ill-fated Ennerdale Tunnel, was identified, extending 2m into the trench. Its steep sides continued to a depth of over 0.7m beneath current ground levels, and its full depth was not ascertained. A firm mottled brown clay (114), with substantial mortar inclusions, filled the pit. Sealing the entire trench was a substantial deposit of clay (100), varying in thickness between 0.6m and 1.1m, known to be the result of landscaping following the removal of the lagoons and site compounds associated with the tunnel.

Trench 14

(Fig. 3)

Trench 14 was positioned close to the centre of the field at right angles to Trenches 11, 13 and 15, and parallel to Trench 12. Its overall length was 42m with a width of 1.5m. Depth varied at each end but an approximate mean depth of 1.34m OD was attained.

Phase 1 *Romano-British*

The natural grey-brown alluvial clay 106 extended the full length of the trench and was overlain by a shallow, linear depression (123), assumed to be a trackway which had eroded into the surface of 106; one machine-cut and four 0.3m-deep hand-dug sondages were excavated across the trench to establish the alignment and depth of the track (see Fig. 3). The trackway was aligned NNE-SSE and was found to continue beyond the trench edges along this alignment Its full width was not ascertained although its exposed width of 1.5m did include its westerly edge which appeared as a gentle slope. The depth of the track appeared fairly constant at 0.2m and the accumulated material within the hollow comprised a firm grey silty-clay (122) with occasional fragments of daub, charcoal and Romano-British pottery.

Sealing the trackway was a 0.1m thick lens of light brown silty clay (143), possibly waterlain, which merged into a 0.12m-thick layer of soft black peaty material (125) at the southern end of the trench. No dating material was recovered from these deposits.

Phase 3 *Post-medieval*

The northernmost (machine-cut) sondage rapidly filled with groundwater to a depth of 1.3m OD, but it was possible to record parts of a large, possibly rectangular pit (127), with a minimum size of 1.4m by 0.4m and well over 0.15m deep. It contained a black peaty clay (128) within which substantial remains of a ?pig burial was encountered, assumed to date from occupation of the former farm. A few sherds of post-medieval pottery were recovered from within this fill, and the pit was also found to cut a late 18th century land drain Another animal burial lay approximately 0.9m south of 127, within a shallow irregular pit (142), approximately 1m wide and 0.15m deep

One metre further south lay a second shallow irregular pit (145), 1.3m long by 0.8m wide with a maximum depth of 0.12m A few fragments of medieval/post-medieval brick fragments and residual Romano-British

pottery sherds were recovered from its fill (144)

A relatively modern land drain (126), aligned north-south, cut through the earlier deposits at the southern end of the trench.

Phase 4 *Modern*

A 0.3m-thick layer of loamy-clay (124), a buried topsoil horizon, sealed all the features within the trench and in turn was sealed by the modern dumped material 100. A sondage measuring 3m long by 1.5m wide and 0.9m deep (1.12m OD) was machine-cut to the west of, and parallel to, the northern end of trench. The section faces showed only dumps (100) lying directly over the natural silts 106, assumed to be within, or close to the edge of, one of the lagoons or slurry-pits mentioned under Trench 13, above. In the base of the trench the southern continuation of pit 127 was visible continuing beyond the eastern section face and a 18th century land drain, aligned north-south, cut through the northwestern corner.

Trenches 11, 12 and 13

(not illustrated)

Trench 11 was the northernmost trench. It was approximately 22m long and 1.6m wide, aligned north-east/south-west, with a maximum depth of 0.7m (2.03m OD). A fine light brown alluvial clay (196) extended from the south-western end of the trench and merged with a grey-brown alluvial clay (106) which extended over the remainder of the trench; a 1.5m-deep sondage was machine-excavated at the extreme south-western end of the trench through (196) to 1.13mm OD, and no inclusions, either natural or artificial, were observed within it. The clays had been disturbed by a relatively modern pig burial (120), towards the north-eastern end of the trench, at a depth of 2.09m OD. Two sherds of bottle glass and two sherds of salt-glazed pottery recovered from within the grave fill (121) suggest a late 19th- or early 20th-century date for the burial, which is presumed to date from when the farm buildings were in use. All the above were sealed beneath a 0.3m-thick layer of dark brown loamy clay topsoil (195), in turn sealed beneath a 0.3m-thick layer of recently dumped clay (100), resulting from construction of the Ennerdale road tunnel, and/or the water pipeline which runs nearby. The latter was more clearly evidenced by an extensive area of disturbance (134/135) at the extreme north-eastern end of the trench. Groundwater was encountered at a depth of 2m OD in the area of disturbance, and the level remained constant.

Trench 12 was located on the north-eastern side of the site, running parallel to the field boundary. It was 19m long by 1.5m wide, with a mean depth of 0.86m (0.93m OD) and was aligned north-west/south-east. The material exposed at the base of the trench was a fine blue grey silty clay (106). Two sondages, approximately 0.5m by 0.4m by 0.4m, were hand-cut into this material to a depth of 0.53m OD; no inclusions, or dating evidence, were observed. All of the trench was sealed by the a modern dumped layer 100, which lay directly over (106). Groundwater was located at approximately 1.10m OD, and this remained constant throughout the investigation; within a short period of time following opening of the trench, the groundwater led to the collapse of substantial sections of the trench sides.

Trench 15 was aligned north-east/south-west, and lay parallel to the south-eastern field boundary. It measured 32m in length, 1.5m wide and had a mean depth of 0.6m (1.21m OD). As in most of the trenches, the exposed subsoil was a grey-brown alluvial clay (106), devoid of inclusions; three sondages, measuring 1m by 1m by 0.4m, 1m by 0.8m by 0.4m and 1m by 0.5m by 0.4m, were hand-dug into the clay to depths of between 0.87m and 1.19m OD to confirm its featureless nature. At a distance of 18m from the north-eastern end of the trench, a shallow linear cut or depression (119) extended across the trench on a north-west/south-east alignment. It was 1.9m wide and had a maximum depth of 0.7m, and its fill (118), a compacted grey-brown silty clay-loam, contained fragments of clay-pipe stems and a strip of copper-alloy (RF 503). Between 118 and the northernmost sondage lay a line of three upright stakes with diameters of approximately 300mm (198, 199, 200), 0.6m and 1m apart, cut into clay 106; they are presumed to be of a relatively recent date. Two elliptical land drains, of 18th-century date, cut diagonally across the trench on a north-west/south-east alignment. All the above were sealed beneath a 0.3m-thick layer of buried topsoil (124), in turn sealed by recently dumped material (100).

4 THE FINDS

4.1 Interim assessment of the pottery

Peter Didsbury

Introduction

The pottery has been quantified by number and weight of sherds in each fabric. The full quantification is included in the accompanying table (Table 1), which also contains notes on selected vessels. Fabric codes used in the database and the remainder of this report are as follows:

RG	Roman greyware	RS	Roman samian ware
RCAL	Roman calcareously-tempered wares	HW	Humberware (14th/15th century)
RCG	Roman coarsely tempered (stone-gritted) wares	PM/MOD	Post-medieval/modern wares (listed in Notes field)
RCC	Roman colour-coated wares	CLAY-P	Clay tobacco pipe
RMORT	Roman mortaria	MOD	Modern wares (listed in Notes field)
ROX	Roman oxidised wares		

Basic ceramic data

A total of 555 sherds of pottery, weighing 6750 grams, was recovered from the excavations. There were also 4 clay pipe fragments, weighing 11 grams.

The chronological distribution of the material was as follows:

Period	No.	Wt	%No.	%Wt
Roman	476	5946	85.8	88 1
Medieval	5	42	0.9	0.6
PM/Mod.	1	5	0.2	0 1
Modern	73	757	13.2	11.2
TOTAL	555	6750	100 1	100.0

The Roman material comprised:

Fabric	%No.	%Wt
RG	55 3	52.6
RCAL	15 5	14.3
RCG	14.9	21 1
RCC	1.5	1.8
RMORT	0.4	0.9
ROX	6.3	4.1
RS	6.1	5.2
TOTAL	100 0	100 0

Discussion

The Roman assemblages are of such a homogeneous nature that a brief description will suffice for all of them. The material is consistent, with exceptions to be noted below, with a source in deposits generated in the Mid/Late Antonine to Severan period, *i.e.* broadly within the period *c.* AD 160-230. They principally comprise: Romanised greywares coming from such northern Lincolnshire kilns as Roxby; shell tempered and stone-gritted coarsewares, which include early Dalesware and Dales-type forms respectively; and a range of fine and specialised wares including samian, mortaria and colour-coated wares. The latter group includes an example of *Moselkeramik* from [141], and an unidentified fabric which possibly comes from either Colchester or the Continent ([111]). Oxidised finewares are also reasonably well represented, and include sherds which may be within the fabric range of Eboracum Ware (e.g. [136]), though this identification is not as sure as in the case of such wares found at Malmo Road, Hull.

The earliest samian vessel from the site, an 18/31R from 183, belongs to the first half of the second century, but the rest probably post-dates AD 160, the two commonest forms apparently being Ludowici Tg and 31R. Specialist examination of these would identify East Gaulish versions of these forms produced in the first half of the third century, if present, and so refine the dating. Specialist opinion should also be sought on the mortaria at some future date.

It will be seen from the above summary that the assemblage is very similar in composition to those from other riparian Hull sites investigated in recent years, notably Greylees Avenue and Malmo Road, and reflects sea-going contacts with both the Continent and the settlement's neighbouring regions.

As far as dating is concerned, the Dalesware and Dales-types are crucial. The earliest stratigraphic occurrences of these types in decidedly recognisable form (*i.e.* essentially as rim sherds) are in contexts [122], [183] and [116, 156, 136], which, according to the conventional "start-date" for Dalesware, would give a *terminus post quem* (TPQ) of c. AD200 for these, and all stratigraphically later contexts. It is worth noting here that the examples from Kingswood exhibit the flat-topped rim which characterises the earliest products of these industries. The origins and date of Dalesware are currently subject to speculative revision, however, and it is possible that the ware was being produced some time before the end of the second century, perhaps by c. AD180. The preferred "spot-date" (TPQ) for the activity represented by these assemblages is probably best stated, therefore, as "Late Antonine to Severan".

As far as a closing date for these assemblages is concerned, it should be noted that there is no definitive sign of the presence of Holme upon Spalding Moor products, which would certainly be expected in quantity if the deposits had continued to receive pottery after c. AD250, and the common type fossils of the fourth century are likewise entirely absent. The only contexts which contain material of possible mid to later third-century date are: [183], which contains a beaker base with possible over-slip barbotine; and [116] and [136], which both contain straight-sided flanged bowls. This clearly has dating implications for all stratigraphically later contexts, though *intrinsically*

these would be dated "Late Antonine/Severan". The present study has been carried out without access to context information, so further interpretation cannot be offered. Is it possible that at least some of the present assemblages result from a mid third-century earth-moving campaign (perhaps a change of use in this part of the settlement) which disturbed deposits of half a century and upwards earlier?

The remainder of the material may be treated quite summarily:

1. Medieval material occurs only in the form of 14th-/15th- century Humberware body sherds, from contexts [122] and [100 - both trenches].

2. Post-medieval, *i.e.* 16th- to earlier 18th-century, material, is entirely absent, apart from a possible sherd of this date (Glazed Red Earthenware or Low Countries Redware) from [177].

3. The modern material listed in the database could represent deposition from possibly as early as the very late 18th-century to the mid 19th- or later.

Table 1: Pottery quantification and notes

Context	Fabric	No.	Wt.	Notes
100	HW	3	27	
100	RG	4	50	
100	HW	1	6	
100	RCAL	1	9	Poss Dalesware shoulder
100	RCG	3	21	Everted dished rim (native tradition)
100	RG	4	23	Incs small beaker or carinated jar
100	RS	2	8	Incs join to poss Ludowici Tg in 116
105	CLAY-P	2	3	Stems, 18th/19th
105	MOD	10	19	Glazed Red Earthenware; Creamware; Late Blackware; Stoneware; Transfer-printed Whiteware
109	MOD	50	667	Glazed Red Earthenware; Transfer-printed Whiteware; Creamware; Unglazed Red Earthenware; Late Blackware; White-Dipped ware; Late Stonewares; Colour Glazed ware
109	RG	5	52	Incs 2 simple-rim dishes
109	ROX	2	24	Incs triangular dish/bowl rim
111	RCAL	9	90	Incs flat-topped Dalesware
111	RCC	3	2	Fine thin-walled beaker, orange fab., red c/c, poss. import, Europe or Colchester?
111	RCG	7	138	Incs Dales-type
111	RG	46	501	Largely Roxby-type fabrics. Incs frag(s) from carinated jar; small Antonine jar; dish/bowl late II/early III; wide-mouthed bowl cf Roxby Form F; jar rim cf Roxby D.
111	ROX	1	10	
111	RS	4	39	Ludowici Tg (post 160); 37 with small ovolo, cf e.g. Criciro 140-180); 2 scrap.
112	RCAL	2	26	bodies

Context	Fabric	No.	Wt.	Notes
112	RCG	2	8	bodies
112	RG	4	18	Roxby-type fabrics
112	ROX	1	1	scrap
112	RS	2	16	bowl sherds, poss Central Gaulish
113	RG	2	18	bodies
116	RCAL	1	4	flat-topped Dalesware
116	RG	6	154	incs SSFB, mid to later 3rd (post 270 if Crambeck, but prob not; poss. post c. 240)
116	RS	4	46	incs 31R; poss. Ludowici Tg with joins in 156 & 100; and 2 scrap, poss. Lezoux
117	RCAL	14	142	incs everted rim jar; domed lid; 3 Dalesware
117	RCC	2	3	Nene Valley beaker scrap
117	RCG	6	187	incs everted rim jar
117	RG	51	586	2 simple rim dishes, Roxby-type fabric; same with externally grooved rim; undercut rim bowl, identical form in 136; 4 bowls Severan or later in 3rd; & frags
117	RMORT	2	53	bead and flange, prob. Antonine; poss. Nene Valley body
117	ROX	8	72	
117	RS	4	14	33, c 150-200; bead frag with perforation, poss Lezoux
117	RS	0	0	2 scrap (1 poss Lezoux)
118	CLAY-P	2	8	stems, 18th/19th
122	HW	1	9	
122	RCG	1	8	Dales-type
122	RG	10	75	incs dish/bowl as Severan Winterton; small jar with curved everted rim; wide-mouthed bowl cf Roxby F
128	MOD	4	20	Late Blackware, Transfer-printed whiteware; creamware; Porcelain
136	RCAL	21	226	incs 3 Dalesware, and 1 Knapton type
136	RCG	8	166	incs jar base, and flat-topped rim fragment
136	RG	60	710	bowls cf Severan Winterton; dish/bowl with external rim groove; necked jar as DDR fig. 9, no 52; bowl with undercut rim (identical form in 117); AND SSFB
136	ROX	9	86	incs footring platter (Ebor ???)
136	RS	4	25	31R (post 160); scrap inc 18/31R or 31R
138	RCAL	6	18	bodies
138	RCG	7	85	Dales-type, join to 156; domed lid frag
138	RG	20	138	bodies, mainly Roxby-type fabrics
138	ROX	2	4	
138	RS	1	1	scrap
139	RCAL	1	1	scrap
139	RCG	2	17	incs Antonine style everted rim jar
139	RG	3	18	bodies
140	RG	4	106	bodies, inc Roxby-type fabrics
141	RCC	1	2	Beaker body, import, prob Moselkeramik, 180-250
144	ROX	1	12	
152	MOD	5	20	Glazed red earthenware; White-dipped ware; Transfer-printed whiteware
152	ROX?	1	4	

Context	Fabric	No.	Wt.	Notes
153	MOD	3	12	Glazed red earthenware; stoneware; slip-banded jug
155	MOD	1	19	stoneware, same vessel in 109
155	RG	3	73	necked jar and bowl with heavy bead, 3rd?
155	ROX	1	9	body
156	RCAL	6	13	incs Dalesware
156	RCG	9	73	early Dales-type, join to 138
156	RG	10	78	dishes/bowls cf Severan Winterton; grooved jar base
156	ROX	2	17	inc low angle fineware lid
156	RS	3	6	2 joins to the Ludowici Tg? in 116, and 1 scrap
164	RCAL	2	6	
164	RG	5	43	
164	ROX	1	1	
171	RCG	3	17	1 sherd very micaceous, distinctive fabric
171	ROX	1	3	
173	RG	2	59	everted rim jar, cf Roxby; chamfers on dish/bowl bases
177	PM/MO	1	5	Glazed Red Earthenware (poss Low Countries Red)
177	RCAL	3	6	Flat-topped Dalesware
177	RS	1	2	
178	RCAL	1	13	bodies
178	RG	4	25	incs Roxby-type fabrics
183	RCAL	7	294	incs early Dalesware; 2 everted rim jars (one poss Knapton; perforated shoulder; good internal residues
183	RCC	1	100	Nene Valley decorated bag-shaped beaker base, poss with overslip barbotine, poss c mid 3rd.
183	RCG	19	483	incs Dales-type
183	RG	15	341	carinated jar as Roxby Form E; jar sim to Form C; lid frag; small jar/beaker base; large burnished everted rim jar/bowl
183	RS	3	75	18/31R, 90-150; 31R, post 160 (late II to c 250 if East Gaulish; poss sherd from Ludowici Tg, sim in 116)
184	RCG	4	50	
184	RG	2	12	bodies, Ant-Sev fabric types
197	RG	3	50	fabrics include blue-burnished
197	RS	1	80	31R
Totals		**559**	**6761**	

4.2 **The recorded finds**

L.M. Wastling

Twenty-seven objects were allocated RF nos (RF500 to RF526). Of these, nineteen were iron objects, two were of copper alloy, one was of lead, one of glass and four stone (including three quern fragments and a struck flint fragment).

The majority of the iron finds were nails, of both Roman and post-medieval date. The copper-alloy finds (a strip and a pellet) appear modern, whilst the lead was a fragment of melt. The glass fragment is from the neck of a vessel, and its clear colour suggests a post-medieval rather than Roman date. The quern fragments were probably of Roman date, and the struck flint is probably a core remnant of prehistoric date.

The Recorded Finds, other than those of stone, were assessed by the Conservation Laboratory of the York Archäeological Trust; a report of this assessment is lodged with the site archive. All finds are packaged appropriately for long-term storage in accordance with conservation and museum guidelines.

5 EVALUATION OF BIOLOGICAL REMAINS

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

5.1 Summary

Sediment samples and hand-collected animal bone, mostly of Romano-British date, from further excavations at Kingswood, Hull, were submitted for an evaluation of their bioarchaeological potential.

Analysis of plant and insect macrofossils from the fills of a construction cut gave only resistant stages of soil organisms. A series of samples from ditch fills or deposits associated with a river bank yielded a mixture of aquatic organisms, a terrestrial flora and fauna from disturbed habitats, perhaps grazing land, and remains likely to have been transported from in or around structures. A single medieval sample of putative alluvium gave slight evidence of having been deposited by running water.

The only microfossils likely to be of interpretative value are the diatoms observed in Sample 31 (Context 183) which may yield additional information regarding the formation of the deposit.

The vertebrate assemblage is very small and, with the exception of the horse skeleton, is rather poorly preserved and hence of little interpretative value.

5.2 Introduction

During early 1997 Humber Archaeology Partnership undertook further excavations at Kingswood, Hull. All of the material submitted for examination was from two trenches (13 and 14) representing three phases of activity: Romano-British (Phase 1), medieval (Phase 2) and post-medieval (Phase 3).

Fifteen sediment samples and a small assemblage of hand-collected animal bone (amounting to 1 box 39 x 31 x 130 cm), were recovered from the deposits.

This report considers the bioarchaeological potential of the material submitted to the EAU for evaluation.

5.3 Methods

All fifteen samples ('GBAs' *sensu* Dobney *et al.* 1992) were inspected in the laboratory and a description of their lithology was recorded using a standard *pro forma*. Six (from five contexts) were chosen for further investigation on the basis of information supplied by the excavator and the inspection undertaken in the laboratory. Sediment descriptions for samples not examined further are also presented. Subsamples of 2 kg were taken from five of the samples (Samples 22, 29, 30, 31 and 35), and 3 kg from the sixth (Sample 27) for extraction of macrofossil remains, following procedures

of Kenward *et al.* (1980; 1986).

All six of the selected samples were examined for microfossils using the 'squash' technique of Dainton (1992), which was originally developed for detection of nematode gut parasite eggs but is of value for a wide range of small remains.

All the hand-collected bone was examined; subjective records were made of preservation, angularity (i.e. the nature of the broken surfaces) and colour, whilst quantities and identifications were noted where appropriate. All fragments not identified to species or species group were recorded as 'unidentified'. These included skull, vertebra, rib and shaft fragments and other elements where species identification was unclear.

5.4 **Results**

The results of the investigations are presented by phase in context number order, with information provided by the excavator in square brackets. Specific questions raised by the excavator are presented in italics.

The sediment samples

Phase 1: Romano-British

Context 136 [Lower fill of robbed construction cut]
Nature of backfill?

Sample 22 (2 kg washover)

Wet, mid grey-brown to light to mid slightly orange brown (cm-scale mottling), plastic and sticky, silty clay

There was a rather small (dry) residue of iron-concreted sediment in clasts to about 10 mm and a little baked clay/daub and charcoal; the small washover of about 120 cm^3 was of plant detritus amongst which were a few badly eroded seeds of plants likely to have been weeds of waste and disturbed ground in the vicinity. There were also some earthworm egg capsules and cysts of soil nematodes resembling those of *Heterodera*, suggesting that at some stage this deposit may have been part of an active soil. No other invertebrates were observed.

Context 183 [Early Romano-British ditch fill]
Is this the river edge or a drainage ditch?

There is a marked difference in the numbers of plant and invertebrate macrofossils recovered from the two samples from this Context. Presumably, this indicates a vertical change in the input into, and/or the preservational conditions within, the deposit (or some other from of heterogeneity)

Sample 30 (2 kg paraffin flotation)

Moist, dark slightly greyish brown, crumbly (working plastic), slightly clay humic silt with some very decayed herbaceous detritus.

The very small residue consisted of no more than about 200 cm^3 of plant detritus with a little gravel, coal and baked clay or daub. All the plant material was rather orange in colour and oxidised. The identifiable plant macrofossils, which were sparse, were all of taxa of standing or gently flowing water or wet meadow to fen habitats. The moderately large flot was of fine plant detritus (not examined in detail) and a few invertebrate remains of no interpretative value.

Sample 31 (2 kg paraffin flotation)

Moist, dark grey, crumbly (working plastic), slightly sandy humic silt with some fine herbaceous detritus. Woody roots and ?rotted charcoal were present in the sample.

There was a moderately large residue of herbaceous and some woody detritus (the former mainly monocotyledonous stem/rhizome fragments) with a little sand and gravel. The identifiable plant macrofossils (which were moderately well to well preserved and present in quite large numbers) were mainly from aquatic and aquatic-marginal taxa; there was also a very little well-preserved charred cereal chaff. The plant remains concur with the archaeological interpretation that this deposit formed by the action of water in a river or ditch — and there is good evidence for several probable bankside taxa suggesting the presence of a variety of kinds of grassland, perhaps even pasture and meadow in the vicinity. There is little evidence of humans except for the coal (which might have originated naturally in the tills in this region), charcoal and traces of linseed (*Linum usitatissimum*).

The moderately large flot was of fine plant detritus (not examined in detail). Invertebrate remains were abundant and well preserved. *Heterodera* type cysts were numerous and there were some earthworm egg capsules, suggesting that there was either inwash of soil or post-depositional burrowing. The insects fell into two groups, species of natural or semi-natural habitats and those typically associated with human occupation. In the first group aquatic and waterside species were sufficiently abundant to indicate sediment formation in or immediately by water. Terrestrial fauna included dung beetles and some plant feeders; subjectively it would appear that the surroundings were strongly modified by human activity, presumably in agricultural use.

The synanthropic insect component included species typically found together in and around buildings, particularly substantial numbers of *Lathridius minutus* (Linnaeus) group, several *Cryptophagus* sp. and specimens of *Xylodromus concinnus* (Marsham) and *Cryptophagus ?scutellatus* Newman. No grain beetles were seen.

The microfossil 'squash' contained several diatoms of more than one form.

Although there is ample evidence to suggest that this was an aquatic deposit, the material examined gives no clear indication as to whether this was an artificial drainage ditch or a natural water course. However, the range of beetles recorded seems a little too restricted to have included a river-transported component, perhaps favouring the first interpretation. Identification of the diatoms may yield some additional information—if marine taxa are present this would suggest that the deposit was formed by the river, and that the river was tidal at this point.

The biological evidence suggests an input of detritus from human occupation, the cereal chaff perhaps indicating the kind of plant debris in which the synanthropic insects lived: rather dry material such as might be found on a house, barn or stable floor.

Context 184 [Early Romano-British ditch fill or riverbank slope/edge]
Fresh water vegetation? Ditch fill?

Sample 29 (2 kg paraffin flotation)

Moist, light to mid grey, slightly crumbly (working plastic), slightly sandy slightly clay silt with small patches of light brown and light grey silt or clay and abundant very decayed herbaceous detritus (some of which may be post-depositionally intrusive woody roots). The sediment showed considerable signs of oxidation along root channels and ?drying cracks.

The moderately large residue consisted of woody and herbaceous detritus, mostly <10 mm; with this were a trace of charcoal and baked clay/daub. The plant debris again was mainly monocotyledonous stem/rhizome fragments and unidentifiable roots; the plant remains in this subsample were rather oxidised and reddened. Traces of charred cereal remains included a well-preserved rachis internode and a single rather abraded barley grain. The other plant macrofossils were mainly wetland and grassland taxa, typically representing wet meadows; there were also some weeds and one other probable cultivated taxon, hemp (*Cannabis sativa*). The concentration of 'seeds' was quite high and some were rather better preserved than others.

The moderate-sized flot was of wood and woody roots and monocotyledon rhizome. Natural and artificial habitats were represented by the invertebrate fauna, with rather small numbers aquatic and waterside species, a few species associated with herbaceous vegetation and a substantial synanthropic component. This last group included significant numbers of *Cryptophagus* sp., *Lathridius minutus* group and *Cryptophagus scutellatus*, as well as smaller numbers of *Aglenus brunneus* (Gyllenhal), *Lithocharis* sp., *Gyrohypnus angustatus* and some other taxa which would typically occur with these in artificial accumulations of decaying matter on occupation sites. There were no grain pests. The plant feeders indicated waterside habitats, but no more than herbaceous vegetation in the surroundings, reinforcing the impression of strong human influence.

The biological remains as a whole are indicative of nearby occupation and perhaps of the dumping or indirect introduction of material from in or immediately around buildings.

Context 186 [Romano-British river vegetation?]
Fresh water vegetation? Ditch fill?

Sample 27 (3 kg paraffin flotation)

Moist, mid to dark grey-brown to mid brown (cm-scale mottling), crumbly (working plastic), sandy slightly clay silt with traces of modern roots

The minute residue comprise no more than a few cm^3 of plant detritus. It was very decayed but amongst it were some poorly to moderately well preserved seeds from taxa probably representing somewhat disturbed wetland areas, perhaps a riverbank. The tiny flot added a few more seeds of the same taxa. Moderate numbers of cysts of *Heterodera*-like eel worms and of earthworms suggested either soil inwash or a phase of *in situ* soil formation, an impression strengthened by the presence of several larvae (wire worms) of the click beetle *Athous haemorrhoidalis* (Fabricius), a typical denizen of grazing land soils. Other invertebrates were a mixture of species from semi-natural habitats, although subjectively with some hints of rather foul decaying matter, conceivably dung.

Phase 2: Medieval

Context 180 [?Medieval upcast/bank]
Snail shells present. Is this redeposited alluvial sediment?

Sample 35 (2 kg washover)

Dry, reddish brown to mid blueish grey (cm-scale gleying), crumbly (working sticky and plastic when wet), slightly silty clay with traces of modern rootlets

The small residue consisted of undisaggregated (slightly concreted) silt; the very small washover of a few cm^3 in volume comprised fine roots and further undisaggregated sediment, with some tiny (<2 mm) mollusc shell fragments. There were no identifiable plant macrofossils, although there were traces of insect remains, a few earthworm egg capsules and a single statoblast (resting body) of *Cristatella mucedo* Cuvier, a bryozoan found in clean water. This last record suggests an alluvial origin for the deposit.

Unprocessed samples

The following samples, all from Phase 1, were described but no further investigations were carried out. The descriptions are presented in context number order.

Context 112 [Fill of early Romano-British boundary ditch containing occupation debris]
Sample 34

Moist, mid grey to mid orange brown (cm-scale mottling), crumbly (working plastic and sticky when wet), clay silt with traces of modern roots

Context 122 [Shallow Romano-British trackway]
Sample 26
Moist, light grey to mid orange brown (cm-scale mottling), stiff and slightly crumbly (working plastic and sticky when wet), clay silt.

Context 136 [Upper fill of robbed construction cut]
Sample 21
Moist, bluish grey and reddish brown (gleyed on cm-scale), crumbly (working sticky and plastic), clay silt with modern roots present.

Context 138 [Later Romano-British shallow depression fill]
Sample 32
Moist, light to mid orange brown to light to mid grey brown, crumbly (working plastic and sticky when wet), clay silt with traces of modern roots.

Context 140 [Primary fill of 'V'-shaped Romano-British ditch]
Sample 33
Moist, light to mid grey to light to mid orange brown (cm-scale mottling), crumbly (working plastic and sticky when wet), clay silt with modern rootlets present

Context 164 [Shallow drainage gully fill]
Sample 23
Moist, mid grey brown to mid orange brown, crumbly (working plastic and sticky when wet), clay silt with modern rootlets present.

Context 172 [Romano-British river bank]
Sample 24
Moist, dark grey brown to mid orange brown (cm-scale mottling), oxidising to strong orange brown along cracks and root channels, crumbly (working plastic and sticky when wet), clay silt with traces of modern roots.

Sample 25
As Sample 24 (above).

Context 184 [Early Romano-British ditch fill or riverbank slope/edge]
Sample 28
As Sample 29 (in main text).

Vertebrate remains

Eleven contexts (ten of Romano-British date) produced a small quantity of hand-collected bone. These provided a total of 148 identifiable (2181 g) and 86 unidentifiable (355 g) fragments. The range of identified species is shown in Table 1, together with total number of fragments, numbers of measurable bones and numbers of mandibles with teeth *in situ*.

Most of the bone (110 fragments) was recovered from the fill (Context 173) of a pit and represented part of the skeleton of a young horse. Additional fragments from the same individual were recorded from Context 117. With the exception of the horse skeleton, the material was rather poorly preserved and battered in appearance. Colour was dark brown or brown; black staining and concretions were noted on fragments from Contexts 111, 136 and 156. Evidence of butchery and dog gnawing was present, particularly on material from Context 136. Bones from this deposit were also very fragmented. Small numbers of burnt fragments were noted from six of the 11 contexts

(117, 136, 138, 156, 171 and 183).

The horse skeleton included numerous fragments of skull, both mandibles (with teeth), first and second cervical vertebrae and most elements of the front legs. From the teeth present and the long bone fusion data, it was possible to age the individual to around nine months. Although none of the epiphyses were fused approximate withers heights could be obtained from both radii and one of the metacarpals. The radii produced withers heights of 10 hands (1008.7 and 1018 mm), whilst the metacarpal produced a height of 14.2 hands (1452.5 mm). This discrepancy can be explained by the fact that fusion of the epiphyses of the metacarpal occurs somewhat earlier than the radius, suggesting that the withers height, calculated from the metacarpal measurement, is closer to the actual size of the adult animal. On these grounds, it is possible to suggest that these remains represent an animal which would probably attain a height between 14.2 and 15.2 hands, taller than the reconstructed mean height for Roman horses of 13.3 hh (1373.1 mm) calculated by Johnstone (1996) in an extensive study of material from seventeen archaeological sites. However, horses of 14 hands and over have been recovered from Roman deposits, for example at Lincoln (Dobney *et al.* 1996) in 1st and 3rd century deposits and at Wavendon Gate, Milton Keynes (Dobney and Jaques in press).

The two pig bones and two unidentified fragments were the only remains recovered from Context 128, dated to the post-medieval period.

5.5 Statement of potential and recommendations

Identifiable plant remains were rather patchily preserved through the Romano-British deposits examined, but the assemblages recorded have potential to reconstruct something of the local environment and, if large enough samples are processed, to offer some information about plants cultivated and/or used by the inhabitants of the area, assuming they have not be transported large distances up or downstream by the River Hull. The synanthropic insects are rather too frequent in Contexts 183 and 184 for such a naturally transported origin, however, and it appears much more likely that waste material containing plant and insect remains was deliberately dumped or more indirectly introduced from nearby structures. On the evidence available, the fairly limited range of synanthropic insects, and the lack of grain pests, may stand as evidence of a small isolated settlement (following arguments presented by Kenward in press), although substantial further subsamples of the deposits would need to be analyzed in detail to be more sure that chance factors were not operating. Clearly the present material deserves further investigation, and any additional excavation program should allow for full sampling aimed at recovering large quantities of sediment from any deposits with preservation by anoxic waterlogging, together with adequate provision for post-excavation analysis and reporting.

The single medieval sample examined in this exercise does not appear to warrant further analysis of plant or invertebrate remains if it is typical of deposits of this period, but medieval and post-medieval layers should still be selectively sampled if encountered during further excavation.

As previously noted, identification of the diatoms from Sample 31 may yield additional information regarding the formation of the deposit (Context 183).

The vertebrate assemblage is very small and, with the exception of the horse skeleton, is rather poorly preserved and hence of little interpretative value. As a consequence, no further analysis of this material is recommended. The poor preservation makes it unlikely that further excavation would produce sufficient bone, or material of suitable quality.

As regards retention and disposal, all of the material should be retained for the moment. All material is currently stored in the Environmental Archaeology Unit, University of York, along with paper and electronic records pertaining to the work described here.

Table 2: Hand-collected vertebrate remains from Kingswood, Hull

Taxon		**No. fragments**	**No. measurable**	**No. mandibles**	**Weight (g)**
Equus f. domestic	horse	128	-	2	
Bos f. domestic	cattle	11	1	-	
Sus f. domestic	pig	2	-	-	
Caprovid	sheep/goat	9	2	1	
Sub-total		*150*	*3*	*3*	*2181*
Unidentified		86	-	-	355
Total		236	3	3	2536

6 DISCUSSION AND RECOMMENDATIONS

6.1 Discussion of the site sequence

Only trenches 13 and 14 recorded evidence of Romano-British occupation. Trench 14, in the centre of the site, encountered a possible trackway, basically a worn linear hollow, running much of the length of the trench; this is likely to be a continuation of a similar feature encountered in Trench 6 (KWH 96), a trackway which may have run parallel to the line of the River Hull during the Roman period. The eastern half of Trench 13 contained a dense concentration of features, mostly shallow ditches, gullies and slots, while to the west the subsoil into which these features were cut sloped down gently to what may have been the contemporary riverbank. Organic deposits, containing well-preserved plant and insect remains were recorded at the base of this slope. Preliminary analyses of samples taken from these deposits recorded a mixture of aquatic organisms, a terrestrial flora and fauna from disturbed habitats, perhaps grazing land, and remains likely to have been transported from in or around buildings or habitations. Large fragments of broken Roman pottery, in a fresh state, were also recovered from within the deposits at the foot of the probable riverbank, indicating that this was a place of primary refuse disposal.

It is clear from these excavations, therefore, that a Romano-British settlement site survives in the area immediately south of the site of the farm buildings of the former Gibraltar Farm, and adjacent to, or partially beneath, the surviving orchard associated with that farm. The pottery from the site indicates occupation in the second half of the 2nd century or first half of the 3rd century AD, while the range of pottery types present suggest that the site had contacts, via the river, with the Continent as well as the settlement's neighbouring regions.

The possible Roman riverside was overlain by a large bank of material which had been deliberately deposited, presumably as a flood-defence measure. Though not directly associated with any dating evidence, this feature post-dated Roman deposits, and is likely to have been constructed in the medieval period. The line of the bank is visible on a 1945 RAF vertical air photograph which shows the earthworks in this area when the land was still unploughed pasture, and the bank appears to connect with a system of ditches and banks, the bulk of which lies further south. The post-medieval features are all likely to have been connected with use of the former farm, including the large ditch or pit (in Trench 13) with its chalk-lined base.

The very latest features are connected with the construction of the ill-fated tunnel on the Ennerdale Link Road. Trenches 13 and 14 produced direct evidence of the lagoons or slurry-pits which had been dug on the site - the extent of these features was seen on air photographs obtained from the engineer responsible for the new bridge. In the area of the largest lagoon, for instance, it appears that the subsoil has been removed to a depth of at least 800mm below present ground levels, effectively destroying all but the deepest of archaeological features there. In addition, all trenches were to varying degrees sealed by deposits derived from the re-instatement of the land following removal of the pits and the adjacent works' compounds.

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

These excavations have fulfilled their aim of establishing the approximate extent and likely survival of the Romano-British settlement site close to the former Gibraltar Farm. Although a number of such Romano-British riparian settlements are known or suspected in the northern part of Hull, this is potentially the most extensive remaining and the first where a stretch of the contemporary riverbank has been located or sampled. Its full excavation - preservation by record - is therefore recommended if development of the site must proceed.

The clients, The Kingswood Development Company Ltd., have requested that the Partnership prepare a project design for further excavations on this site prior to development, this approach having already been discussed with the relevant curatorial archaeologist from the Humber Sites and Monuments Record, advisor to the local planning authority on such matters. Information derived from these trial excavations was necessary to allow any plans for further excavation to be better formulated, and the results of this work have since been used in the preparation of a project design; the planned excavations at Gibraltar Farm are now underway.

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The excavations were undertaken by permanent or temporary staff of the Partnership, under the supervision of John Tibbles: Jonathan Albone, Jeremy Bradley, Tony Hatfield, Mike Frankland, Duncan Stirk. The finds recording was undertaken by Lisa Wastling, while Peter Didsbury examined and reported upon the pottery. Work on the biological remains was carried out by the Environmental Archaeology Unit; they are grateful to Humber Archaeology Partnership for providing the material and to English Heritage for allowing AH and HK to contribute to this work. Initial conservation of the finds, and an assessment of their conservation needs, was carried out by Erica Paterson of the York Archaeological Trust.

The report was edited and compiled by K. Steedman, who also contributed to the Introduction, Discussion and Recommendations. The site photographs were taken by John Tibbles, while the plan and section drawings reproduced in the report are the work of Mike Frankland. Administrative support was provided by Georgina Richardson.

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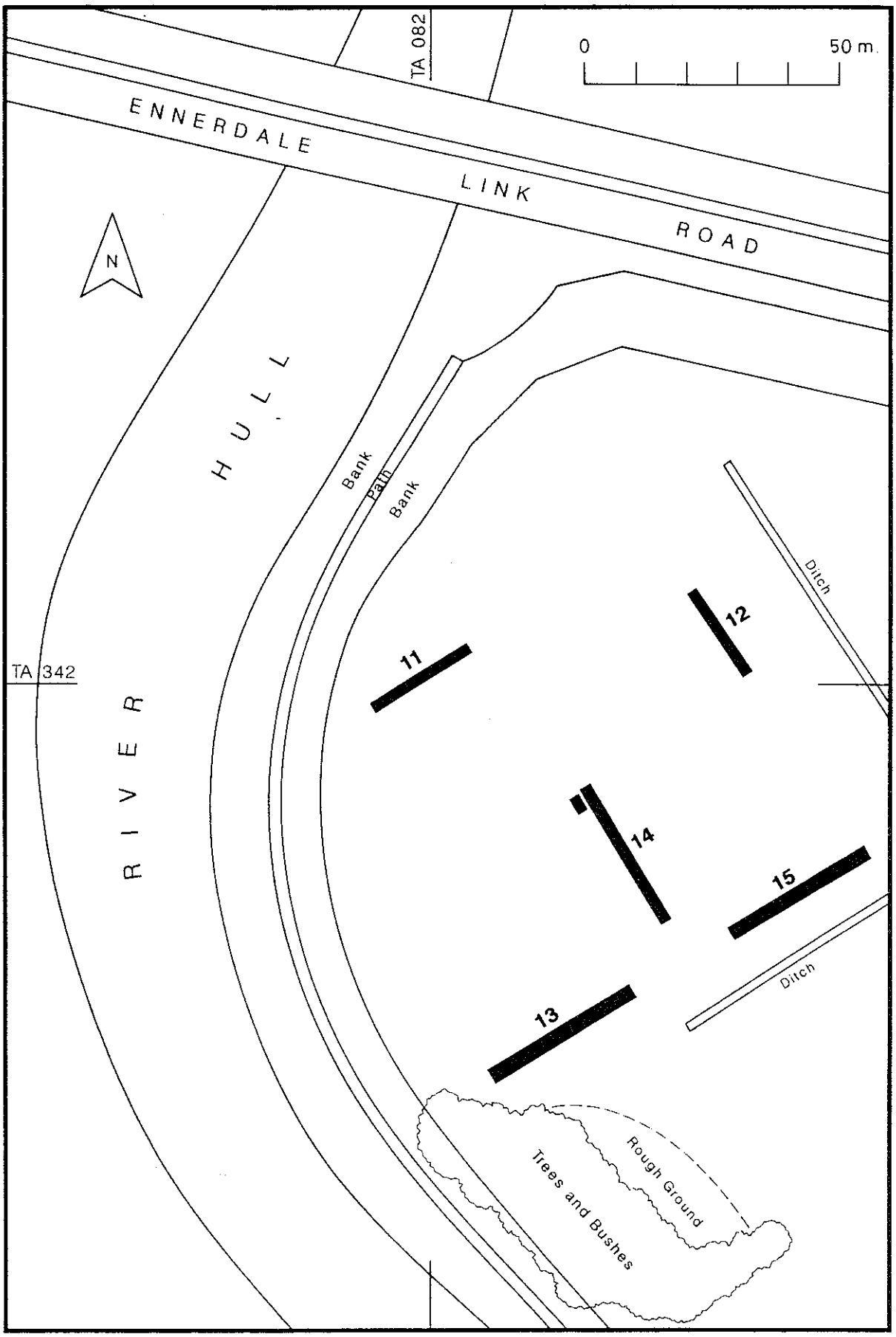

Figure 1: Location of the five trenches, in relation to the River Hull and the Ennerdale Link Road; National Grid Reference co-ordinates indicated.

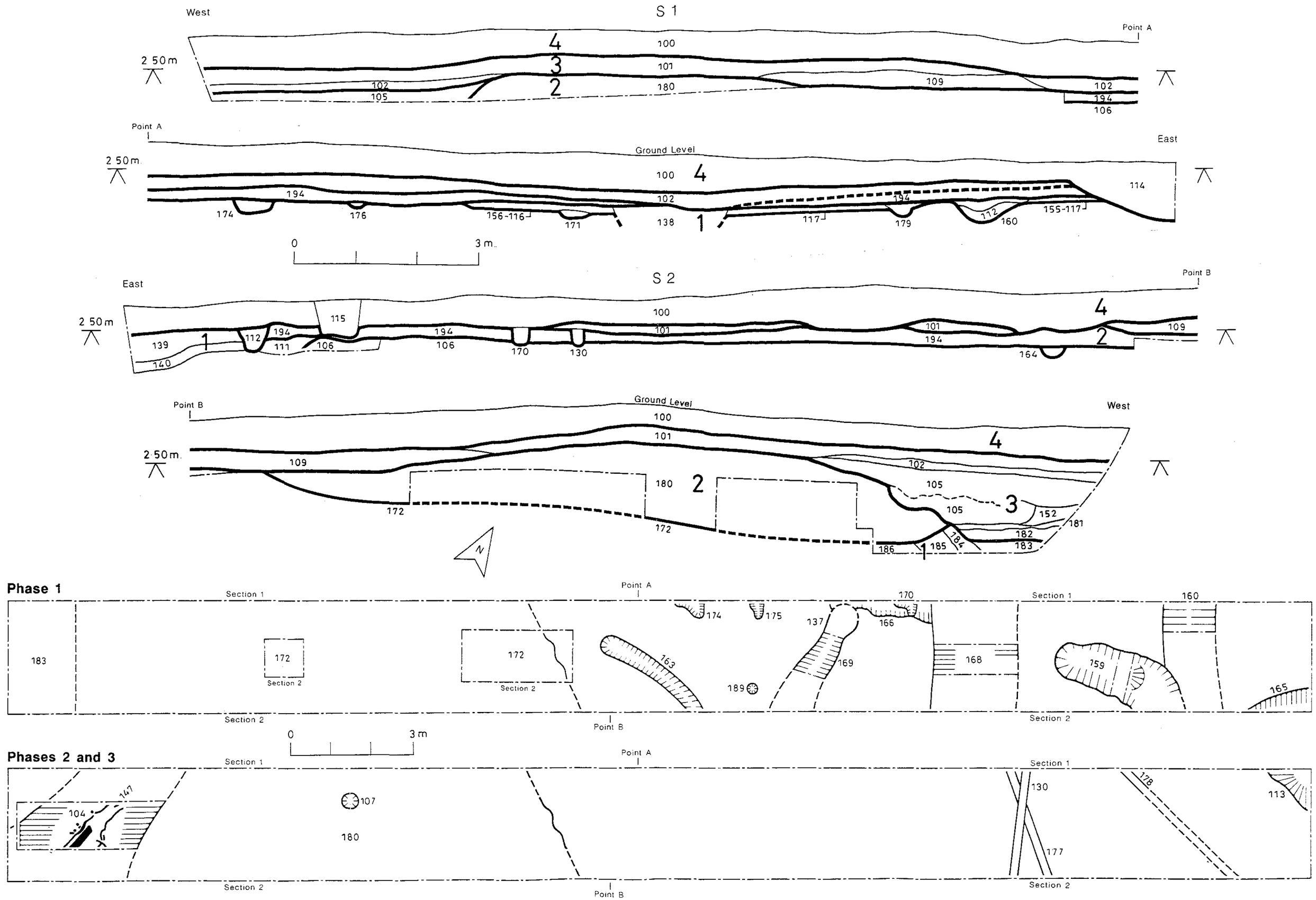

Figure 2: Trench 13 - excavated features in plan and section.

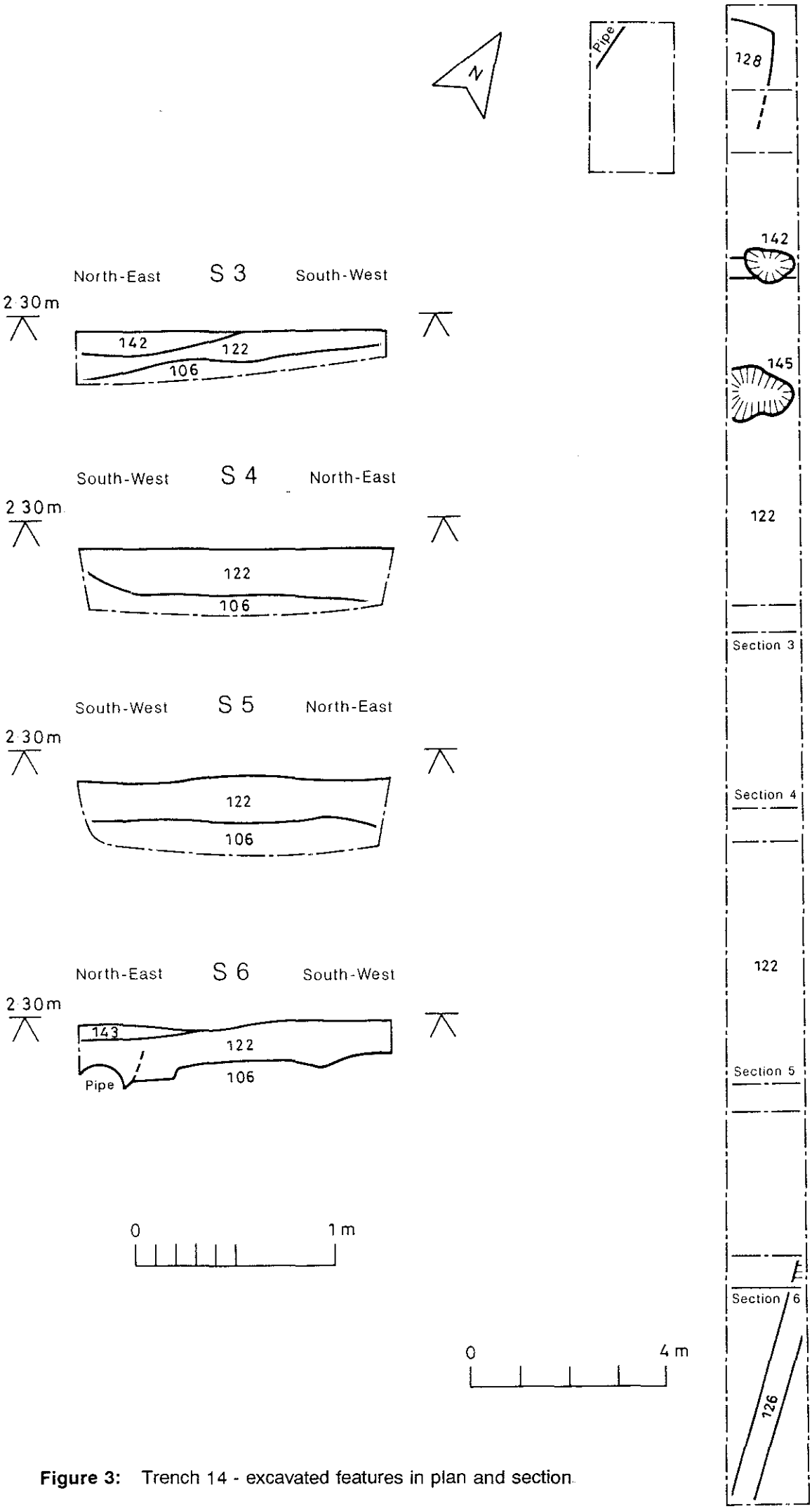

Figure 3: Trench 14 - excavated features in plan and section.