



Humberside Archaeology

Trial excavations at Welton Road, Brough

October 1991



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TRIAL EXCAVATIONS

AT

WELTON ROAD, BROUGH

October 1991

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December 1991

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SUMMARY

Trial excavations funded by Persimmon Homes (East Yorkshire) Ltd, as part of an archaeological evaluation prior to a proposed housing development, recorded the remains of Roman roadside settlement dating from the early 2nd to the early 4th centuries AD. Traces of buildings, yard surfaces, pits and other features lay within properties delineated by boundary ditches, while the finds included fragments of late 2nd or early 3rd century tablewares, deemed to be of national importance in terms of Romano-British pottery studies.

INTRODUCTION

The following report presents the preliminary results of an archaeological evaluation by the Humberside Archaeological Unit on land to the rear of 40-52 Welton Road, Brough (Fig 1), centred on National Grid Reference SE 9407 2671. The work was commissioned by Persimmon Homes (East Yorkshire) Ltd. on the advice of the County Sites and Monuments Officer, in advance of submission of a planning application for housing development.

The site lies immediately east of the fortified area often identified with the Roman town of *Petuaria*, extensively excavated during the 1930's and between 1958 and 1961 (Wacher 1969). It has been shown that archaeological remains associated with this settlement survive over a large area around the defences, and it was considered a high probability that the proposed development would affect such remains.

The first stage of this evaluation was a geophysical survey of the site, and Geophysical Surveys of Bradford were commissioned to carry out this work (Geophysical Surveys Report 91/61). The results of the survey indicated the probable existence of archaeological features in several areas. It therefore proved necessary to undertake trial excavation to determine the precise nature of the features, their extent and their date.

THE EXCAVATIONS

Methodology

The trial excavations were carried out over three weeks in October 1991, with a team of seven staff of the Unit. Topsoil was stripped from trenches by mechanical excavator, and the exposed subsoil cleaned by hand to reveal differences which might betray the existence of archaeological features. Where seen, the underlying drift geology was found to be compact sand, part of the Vale of York Glacial Lake deposits. In the south eastern part of the site in particular, there was much evidence of disturbance of the subsoil as a result of cultivation associated with more recent use as a market garden, though damage to archaeologically significant deposits was limited to a depth of 100-150mm below the topsoil.

In all, fourteen trenches were opened, labelled A-O, positioned so as to intercept anomalies identified on the geophysical survey (Fig 2). Four turned out to be almost entirely devoid of archaeological features, though most confirmed the findings of the survey. Features identified within trenches were assigned context numbers and, following excavation, were recorded with written descriptions on *pro forma* sheets and drawn plans and sections, in accordance with Humberside Archaeology Unit procedures. Photographs were taken where appropriate. Finds recovered from each feature were labelled with reference to it, though finds of special note were assigned an individual Registered Find (RF) number. Samples were taken from the fills of most features for analysis of surviving biological remains. Four samples, taken from different categories of features, were subsequently examined at the Environmental Archaeology Unit, University of York, though the results were disappointing and their report has not been reproduced here (Hall and Dobney 1991).

The features will initially be described trench by trench, after which a more general discussion will draw tentative conclusions as to the development of the site through time. Context numbers of features are highlighted when first described. The dating of pottery from particular features is taken from information supplied by Peter Didsbury, the Unit Pottery Specialist, and he has contributed a general discussion of the whole assemblage for inclusion (see THE FINDS, below).

The records of this excavation and the finds recovered from it will reside with the Humberside Archaeology Unit until such time as arrangements can be made for their transfer to Hull Museums and Art Galleries for proper long-term storage.

Trench A

(Fig 3)

This, the most southerly trench, was positioned with the intention of intercepting two linear features identified on the geophysical survey, one running N-S and roughly parallel to the present eastern site boundary, and the other running NNE-SSW. Both were assumed to be ditches and it was hoped to establish which was the later of the two by siting the trench close to their point of intersection.

Upon excavation, it became clear that the survey had detected only some of the features present here, though the trench did extend further east than the area actually surveyed. Topsoil stripping revealed the surface of the natural sand with various features visible due to differences in soil colour. The earliest feature was ditch 23, 1.73m wide and 0.5m deep, with steeply sloping sides and a narrow, relatively flat base. The lowest fill, 34, a firm dark grey sandy clay, was confined to the bottom 0.09m of the ditch, and was overlain by two fairly similar deposits of fine grey silty sand (24 and 25). Whilst the lowest fill was probably the result of sediment accumulating as a result of slow-moving water within the ditch, the overlying fills were likely to be windblown sand infilling the ditch after its disuse. The same ditch was encountered further north, and was clearly that feature which ran NNE-SSW on the geophysical survey. The ditch was overlain by one of three wide and shallow features, N-S aligned, which ran across the trench: 17, the easternmost, was 5.74m wide and 0.53m deep, with a bowl-like profile, containing fills 18 and 19; 20, was 3.4m wide and 0.4m deep, of a similar profile, and containing fills 21 and 22; and 15, the westernmost, was 2.1m wide and 0.1m deep, and contained fill 16. All the fills were basically a fine, slightly silty sand. The centres of each feature were just over 9.5m apart, and this regular arrangement, considered with their dimensions and profiles, makes it likely that they represent the base of furrows from *ridge and furrow*. This was a medieval agricultural technique based on the repeated ploughing of field strips, and resulted in distinctive landscape features. While some ridge and furrow survives on modern pasture, the majority has, like here, been levelled by subsequent ploughing. Pottery recovered from the fill of 20 confirms this dating; one sherd of Beverley 2 Orangeware and two joining sherds of Beverley 1/2, dated to the 13th or 14th century. It seems likely that furrow 20 was the N-S feature on the survey.

Just west of 23 was another linear feature. Cut 36 was 0.9m wide and 0.25m deep, with a splayed "V-shaped" profile, filled with a fine mid grey silty sand (37). It is likely to have been another plough furrow, perhaps later than the others.

Trench B

(Fig 4)

The continuation of the earliest ditch from Trench A was 67. It was 2m wide and 0.66m deep, with a steeply sloping west side, a gentler east side and a slightly concave base (Plate 1). The fill (68) was a compact silty sand which darkened noticeably towards the base. There were no finds within the fill to give any idea of the date of the feature, though as in Trench A, it was overlain by medieval ploughing.

This trench contained continuations of at least two of the furrows recorded in Trench A. Feature 65 was a shallow linear depression 2.8m wide and 0.22m deep (filled by 66), the base of which consisted of a number of undulations, individual ploughmarks within the one furrow. This feature was the continuation of 15 in Trench A, and overlay ditch 67. Furrow 20 continued as 46, 3.3m wide and 0.33m deep, with the familiar bowl-like profile, and the same grey silty sand fill (7/35), here containing two small sherds of medieval cooking pot, dating from the 12th to 14th century. Just east of 46 was another similar feature, 51, at least 2.3m wide and 0.32m deep, filled with grey silty sand 52; the fills of the two features were essentially continuous. The latter furrow did not line up with the easternmost furrow in Trench A (17); this must reflect some aspect of the medieval field layout.

Trench C

(Fig 5)

This trench was cut over 70m north of Trench B, with the aim of once more sampling the N-S feature indicated on the geophysical survey, and the area to either side of it.

There were no features here which could, with any degree of certainty, be regarded as continuations of those seen further south, and there was no obvious candidate for the feature highlighted in the survey. Feature 38 was 1.08m wide and only 0.145m deep, with gently sloping sides which merged imperceptibly into a flat or slightly concave base. A few metres to the east was 45, 1.81m wide and 0.15m deep, similar in profile but having a more undulating base. The fills of both features, 39 and 44 respectively, were essentially pure light grey sand, though 44 did contain a single sherd of Humberware or Late Humberware pottery, dating from the 14th or 15th century. Eight metres further east were two more shallow linear features, one cutting into the other. The earliest, 41, was 1.42m wide and 0.25m deep, with sides sloping gently to a rounded base, and it was cut along its west side by 43, of similar shape and dimensions. The fills (40 and 42) were both firm grey sand; 40 contained a sherd of Beverley 2 Orangeware pottery (13th/14th century), while 42 contained a rim of a dish which was not dateable. Although none of these features appeared to be direct continuations of those to the south, it is probable that they too were medieval plough furrows, presumably within a different field.

A series of narrower plough marks, at intervals of around 1.5m, overlay furrows 41 and 43 and extended across the area between them and 45. These are assumed to be post-medieval in date, indicating continued use of the land for agricultural purposes beyond the medieval period.

Trenches D, E and F

(Fig 6)

These three trenches were cut to sample the N-S running geophysical anomaly, and to investigate its apparent change to a NW-SE orientation. Between them they formed three sides of a rectangle, open to the east, with the western side (Trench E) later being extended northwards. While the N-S running anomaly may have been located in Trench F (see below), the apparent change in direction was not confirmed.

Following the stripping of topsoil from Trenches D and E, it became clear that in contrast to the other trenches further south (and indeed Trench F), natural sand did not lie immediately below topsoil, but was sealed beneath a subsoil layer of brown loamy sand with flecking of charcoal and chalk throughout (2). Several post-medieval or modern land drains cut through this material (eg 11, 13; not illustrated), though its surface was otherwise featureless. Occasional fragments of Roman pottery were however encountered during cleaning. Removal of a small area of the layer by hand showed that it sealed features cut into the natural sand and, within Trench E, much of the remainder was taken off by machine. It was seen to vary in thickness between 0.1m and 0.3m; time did not allow for its removal in Trench D, though it extended for its full length, being seen to be between 0.3 and 0.4m thick at its eastern end (where cut by drain 11). The layer contained significant quantities of bone and Roman pottery, mainly 2nd/3rd century greywares, though including later 3rd century colour coats and late 3rd/early 4th century Dalesware body sherds. This rather mixed assemblage reflects the fact that the dates of individual features below it span a period from the 2nd to the 4th centuries. The accumulation of layer 2 must therefore have been the result of occupation over this period, as well as the debris of abandonment. The features would have been dug from levels *within* the layer, and less hasty excavation of it might have confirmed this; there were some indications of variations within the layer when hand digging was employed, though there was not enough time to record them.

Features were recorded over virtually the entire length of Trench E, a distance of c.40m, and the various features will be described below, working from north to south. The surface of natural sand, into which these features were cut, lay between 0.55m and 0.6m below the present ground level.

Linear feature 191 was 1.2m wide and 0.3m deep, with sides sloping gently to a flattish base, and it was filled with a firm dark grey brown silty sand containing inclusions of pottery, bone and oyster shell (137) over and around numerous irregularly-shaped fragments of limestone (192), up to 0.2m in diameter. The presence of the stone makes it likely that this feature was structural in origin, whether the remains of the construction trench of a wall with stone packing supporting upright timbers or ground beams, or the remains of a wall following its dismantling. It ran approximately E/W across the full width of the trench and was slightly overlapped along its southern side (see section 23, Fig 00) by a parallel linear feature, 193. This was only 0.4m wide and 0.15m deep, with steep, parallel sides and a flat, narrow, base. Its straightness and regularity are indications that it too had had a structural function, perhaps the setting for a beam. The backfill, a firm grey-brown sandy silt containing pottery, shell and limestone fragments (194) would have been deposited following removal of the timber. Signs of burning at the base of the feature may indicate why the building was dismantled. Pottery from the fills of both features dated to the 3rd century or even the earlier 4th century; 2nd/3rd

century greywares, fragments of samian forms Dr 27 and 29 from the early 2nd century, and rim fragments from Dalesware vessels, produced in the late 3rd or early 4th century.

A few metres south of the above were two parallel ditches, 3m apart, and aligned WSW-ENE. Both had slightly irregular, though basically parallel, sides which sloped gradually to meet at a rounded base. Ditch 164, the northernmost, was 1.35m wide and 0.39m deep, and was filled with a firm mid brown grey silty fine sand with occasional flecks of chalk and charcoal (165). Ditch 216 was 1.2m wide and 0.45m deep, with a fill of compact light brown/yellow fine sand (218), presumably blown sand, overlain by a firm dark brown silty sand (217), not unlike the overlying layer 2 in its composition. Pottery from the fills of both ditches was of 2nd century date. Between the two was a small circular feature 152, 0.28m in diameter and 0.23m deep, with a saucer-like profile and a fill of soft dark grey brown sand (153) containing some bone. This may have been a post position or a small rubbish pit.

The southern edge of ditch 216 was cut by a shallow sub-rectangular or oval pit 124, measuring 1.1m by 0.94m, with a depth of 0.16m. It had steep, near vertical, sides to the south and east, with gentler inclines on the remaining sides. The base was flat. Within the feature were the remains of a human internment (RF 1022), consisting of only a skull and a limb bone fragment, and around the edges were found vertically-set nails, points uppermost (Plate 2). Many had remains of wood grain preserved in their corrosion, and it is likely that they had held together a wooden box within which the body had been deposited. The inferred size of this box, and the incompleteness of the body, are indications that this was the burial of incomplete skeletal remains. The fill around and above the skull and nails was mid grey brown silty fine sand with occasional charcoal inclusions (125), and this contained pottery of a late 2nd century date; a large sherd of rusticated ware in Roxby-type fabric and other greyware sherds which could be contemporary. Further east, in a similar position relative to ditch 216, was a roughly semi-circular feature 297, 0.9m in diameter, only part of which lay within the excavation area. It was not able to be excavated due to lack of time, though its fill, 298, a brown silty sand, did produce at least two positive metal detector readings, and it is conceivable that this was also a grave.

South of this point there was a scatter of small pits or post positions. Feature 291 was roughly square in plan, measuring 0.13m by 0.13m and 0.08m deep, with a "U"-shaped profile. Its fill (292) was a dark grey sand. Close by were two intercutting features. The earliest, 222, was roughly oval in plan, measuring 0.8m by 0.5m, with steep sides and a flat base at a depth of 0.13m. Its fill, 223, was a firm grey brown sandy silt containing charcoal, shell and pottery, the latter of possible 2nd/3rd century date. It was cut on its west side by 226, rectangular in plan, measuring 0.45m by 0.3m and 0.14m deep. The sides were near vertical, meeting a slightly concave base. The fill of dark grey silty sand (227), contained a single sherd of 2nd/3rd century greyware. To the east was circular feature 214, 0.44m in diameter and 0.13m deep, with gradually sloping sides merging into a flat base. Its fill 215 was a soft brown sandy silt. Immediately to the south was 224, partially sealed by layer 2 where it remained in Trench D. It measured 0.9m long by at least 0.25m in width, and was 0.09m deep. From the top, the sides sloped gradually to a flatter area, in the centre of which was a further, near vertical, drop to a flat base. This central part may originally have held an upright post. The fill (225) was a dark grey/brown sandy silt with occasional charcoal flecks.

Several unexcavated features lay south and west of those described above; they were identified in plan, and their fills described, but lack of time precluded their excavation. 289 was circular, 0.54m in diameter, with a fill (290) of firm dark grey clayey sand with flecks of chalk and charcoal. 287 was also circular, 0.48m in diameter, with a similar fill (288). 260, although lying only partially within the excavation area, was probably also circular, 0.32m in diameter, with a fill of light grey silty and ashy sand, heavily flecked with charcoal (261). Adjacent was 258, also extending beyond the excavated area. This was rectangular with rounded corners, measured at least 0.28m by 0.22m, and was filled by a firm grey brown silty sand (259). A feature of a similar appearance was 254, 0.6m by 0.2m, filled with a light grey sandy silt with charcoal flecks (255). To the north-east was 252, roughly triangular in plan with rounded corners, 0.55m by 0.37m, filled by a dark grey sand with chalk flecks (253). Close by was an excavated feature, 250, which extended beyond the eastern edge of the trench. It was vertically-sided, with a shallow indentation in its southern edge, had a flat base, and measured 0.4m by at least 0.35m, with a depth of 0.24m. Fill 251 was a firm grey sandy silt.

Further excavated features lay south of 250. 202 was an irregular linear feature, at least 0.67m long and 0.38m wide, with a depth of 0.09m. The sides were steep and the base slightly concave, containing a fill (203) of firm grey brown sand with charcoal inclusions and pottery of the 3rd or early 4th century. This feature was cut on its northern edge by 204, a roughly circular feature, 0.5m in diameter and 0.19m deep. The sides were steep and the base even. A firm dark grey/brown sand with flecks of chalk and charcoal (205) filled the feature. Immediately west of 202 were two more linear features running E/W from the western limit of excavation, both unexcavated. 265 was at least 1.3m long and 0.3m wide, with straight, parallel, sides and a rounded terminal. Its fill (266) was a mottled grey mix of sand, silt and clay. Adjacent to the south, and probably later than it, was 262, over 1.8m long and 0.40m wide. It had straight parallel sides, and at its eastern end may have joined with 202. On its southern side, a circular "bulge" 264, 0.2m in diameter, may mark the position of a later pit or posthole, though there was no discernible difference in the fill of grey brown sandy clay (263). It is conceivable that these linear features were slots for beams supporting the walls of buildings. Further similarly aligned structural elements were recorded a few metres to the south. 275 was linear, over 0.95m long and 0.18m wide, with straight, parallel, sides. It contained a fill of firm dark grey sandy clay mottled with patches of yellow sand, perhaps a wall base. Unexcavated circular feature 267, 0.42m in diameter, cut the eastern end of 275. Its fill was a firm grey brown sandy clay (268). Immediately east of it was oval pit 200, 0.6m by 0.33m and 0.16m deep, with a fill (201) of grey brown sand with occasional charcoal flecks. A single pottery rim fragment in a fine black-faced greyware was not dateable. A further three unexcavated features lay just to the south; 269, 271 and 273. All were roughly circular, with diameters of c.0.3m, and fills of dark grey sandy clay with charcoal flecks (270), light grey silty sand with heavy charcoal flecking (272), and light grey sandy ash/silt with charcoal flecks (274). All were probably post-positions associated with whatever structure had incorporated the linear features.

It is possible to discern a *minimum* of three phases of timber buildings in the features described above. The earliest building may have been only between 2m and 2.5m wide, with walls based on beams or clay sills set within the slots 275, 262, 265 and 202. Nearby postholes may have been associated. It was aligned approximately E/W. Later than this was another building, for which we can conjecture at least one corner and parts of two walls. The lines of the walls are inferred from the position of probable postholes; 289 was a corner post, with

222 and 224 on the north wall and 252 and 204 on the east wall, and the latter may also have been a corner. The building measuring at least 4.5m in one direction and 3m in the other, with its axis aligned WSW-ESE. This was apparently succeeded by another structure on a similar alignment, though only two structural elements can be inferred; 226 was probably a corner post, with 250 a post on the east wall.

A series of pits and scoops lay south of these probable buildings, though only two were able to be planned due to lack of time. Pit 293 was circular in plan, 1.4m in diameter, and partial excavation revealed it to be at least 0.6m deep. The fill was a dark grey sand with lenses of charcoal near its base. It was probably a rubbish pit. Features 183, 185, 190, 196, 198, and 206 lay south of this. They were invariably small pits or hollows filled with grey brown sand (fills 184, 186, 195, 197, 199, 207) some containing small quantities of pottery; 184 had 2nd century pottery, 186 had a single undatable greyware sherd, 195 had two undatable greywares, and 199 had 2nd century greywares. Small oval pit 188 was planned. It measured 0.7m by 0.5m and was 0.28m deep. The sides sloped gently to a concave base, containing a fill of firm grey brown sand with occasional charcoal flecks (189).

Pit 188 was partially overlain on its southern edge by a curving ditch, 181, running NW/SE from the western limit of excavation before turning E/W to meet the eastern limit. It was just over 1m wide and 0.47m deep, with steeply sloping sides and a rounded base. The fill, 182, was a firm grey brown sand with flecks of charcoal and chalk, there being lenses of cleaner sand in the upper parts; pottery recovered from it was largely 3rd century in date, including a sherd of Central Gaulish samian and a fragment of Dressel 20 amphora. A later ditch cut across 181, running approximately E/W across the full width of the trench. 179 was 1.37m wide and 0.25m deep, with gently sloping sides and a flat base. The fill (180) of grey brown sand contained a single small fragment of light grey Roman pottery, not easily datable.

Further ditches lay a short distance further south. Ditch 87 ran WSW/ENE across the full width of the trench (Plate 3). It was 2.03m wide and 0.66m deep, with sides which sloped at c.45° down to a relatively flat base. While this was its shape as first dug, it is apparent that it was recut on several occasions following infilling with blown sand, and each episode could be detected in the fills. The earliest fill, 141, was primarily redeposited natural yellow/orange sand with occasional flecks of charcoal and iron panning, and this was overlain by 139, a deposit of similar sand but which contained no inclusions. 138 overlay this, and may have been an upper fill of the ditch as first dug. 142, a light yellow brown sand with charcoal and iron pan flecking which occupied a slight step in the southern ditch side, may be a fill of a later recut. It contained a single greyware sherd of probable 2nd century date. The latest, and most distinct, recutting was filled by 88, a grey brown sand with charcoal and chalk flecking. Pottery from this fill was predominantly of late 2nd century date, though there were some sherds which may have been Dalesware, and therefore of late 3rd or early 4th century date. Parallel to ditch 87 was 85, 1.06m wide and 0.335m deep, having steep sides and an uneven base. The fill of grey brown sand with frequent charcoal flecks (79) contained non-diagnostic sherds of Roman grey and oxidised wares.

Only one small feature of potential Roman date was recorded south of these ditches. 295 lay up against the eastern limit of excavation, and was not excavated to its full southern extent, though it measured at least 0.32m by 0.14m. It had near vertical sides and a flat base, and the grey sand fill (296)

contained fragments of stone set against the north side. This feature is likely to have been a posthole with stone packing. The overlying layer 2 continued for a short distance south of here, but did not extent eastwards into Trench F.

Following topsoil stripping, it became apparent that Trench F was largely devoid of archaeological features. An exception was 26 (not illustrated), 1.35m wide and 0.15m deep, with gently sloping sides and a flat base. In appearance, this feature differed little from the furrows recorded in Trenches A-C further south, and it is possible that this was the N-S geophysical anomaly. An ill-defined feature (69; not illustrated) several metres west of this at the south end of Trench E, may have been another furrow. At the extreme eastern end of Trench F, a narrow band of pebbles and gravel mixed with clay (000, not illustrated), 0.15m (maximum) wide and 0.05m thick, may have been the edge of a trackway or metalled surface, though later ploughing had disturbed it to such a degree that it was not possible to be sure of its orientation. An entry in the County Sites and Monuments Record (SMR 3471) records the approximate position of a trackway in the eastern part of the site, the result of observations made while a manhole was being constructed on the sewer which runs alongside the site boundary (records in Hull Museums), and this metalling may have been part of it. The date of the feature is not known. Several post-medieval ploughmarks, similar to those seen in Trench C, were confined to the eastern part of the trench.

Trench G

(Fig 7)

This trench was positioned with the intention of ascertaining if buildings or settlement remains had existed south of the presumed line of the Roman road. There was no particular indication on the geophysical survey that such features might exist, though the survey did not in fact extend right up to the northern site boundary. Stripping of the topsoil encountered archaeological features immediately, and rubble (see below) was discovered just over 0.35m below the present ground surface, while the surface of natural sand was at least 0.9m below ground surface at the south end of the trench. It was not possible to excavate all of the archaeological features due to lack of time and our knowledge of the earliest features, in particular, is very partial.

Features which cut directly into the natural sand were only revealed in the southern half of the trench, those to the north remaining obscured by later features (Fig 7, plan 1). Close to the southern limit of excavation were two parallel ditches running E-W the full width of the trench, and cutting through the disturbed surface (286) of the natural sand (Plate 4). 228, the southernmost, was 0.62m wide and 0.30m deep, with straight sides sloping at c.45° to a rounded base. The fill, 229, was a firm mid grey clayey sand with inclusions of charcoal, chalk and flint. Immediately to the north was 231, 0.75m wide and 0.35m deep, with straight sides sloping at c.45° to a rounded base. It contained two distinct fills, the lower, 233, a firm light grey brown slightly clayey sand with charcoal flecks, was overlain by 232, a mid brown grey clayey sand with charcoal and chalk inclusions. Both features contained pottery of 2nd century date, possibly from the first half. It was not possible to determine if one ditch had cut the other, and there is no particular reason why they could not have been contemporary.

Cut into the fills of these two features was oval pit 160. It measured 0.96m by 0.6m, and was 0.23m deep. Several large limestone fragments (162) were set against the base and sides of the pit and in a centrally-positioned cluster at the top of the fill, a compact dark brown grey clayey sand (161). The stones would have been packing around an upright post set within the pit, and the upper stones surrounded a small sub-rectangular space which must represent the position of the post prior to its removal. The fill around the stones contained pottery of mid to late 3rd century; sherds of greywares in various fabrics, all of late 2nd/early 3rd century appearance, sherds of a jar in Roxby-type fabric, and body sherds which could be Dalesware.

North of these features were several which were not excavated, merely planned. The earliest may have been 248, probably a ditch, which appeared as a E-W band of discolouration within the natural sand. It was c.0.8m wide and the fill was a compact light grey brown sand with occasional charcoal flecks (249). Cutting the northern edge of the ditch was 242, an oval feature which ran beyond the excavation edge. It measured 0.44m by at least 0.46m, and was filled with a firm dark grey sandy clay with charcoal and chalk flecks (243). To the south of the ditch was a circular feature, 240, 0.7m in diameter with a fill of firm dark grey sandy clay with moderate flecks of charcoal and chalk (241). Another, smaller, circular feature, 244, lay to the north. It was 0.42m in diameter, with a fill of mid grey sandy clay with occasional flecks of chalk and charcoal (245). A large unexcavated pit, 246, lay a short distance to the north. It was cut along its west side by a later feature (see below), but its full surviving dimensions were 2.6m by 1.24m. The fill, 247, was a firm mid grey brown sandy clay with chalk and charcoal flecks.

Running for 7.4m along the western edge of the excavation trench was linear feature 236, cutting through most of the features described above. Its full width was not seen, though it measured at least 0.56m from east to west. At its southern end it terminated in a gentle curve, while the north end was apparently cut by a later stone-built drain (see below). The short length of it which was excavated revealed it to have a steeply sloping east side merging into a flat base, and a shallow indentation running part of the way along the base coincided with a vertical differentiation seen within the fill (see section 26b, Fig 00). The western part of the fill was 237, a dark grey very sandy clay with charcoal, chalk and limestone inclusions, and the eastern was 238, a mid grey brown sandy clay with occasional charcoal flecks. The function of this linear feature is likely to have been structural, and it was probably the foundation for one wall of a building. The curved corner at the south end may indicate that the wall turned west from this point and that the bulk of the building lay in that direction. The base of the wall, probably a beam, would have been set within the trench (hence the indentation) with the outer fill (238) packed against it. The other fill would have been dumped in following removal of the beam.

All of the above features were sealed by 84, a 0.10-0.15m thick deposit of firm dark grey brown slightly clayey sand with frequent flecks and small fragments of chalk, occasional flecks of charcoal and angular limestone fragments (Fig 7, Plan 2). While it is possible that some of this material had accumulated over a protracted period, it is perhaps more likely that most of it was dumped to level the ground after robbing of the building represented by 236. A concentration of small limestone fragments on its upper surface indicate that it was intended to be walked upon. Within layer 84 was pottery dating to the late 3rd or early 4th century, and coin (RF 1037) was also recovered, probably of early 3rd century date (see provisional identification in THE FINDS). A medieval silver cross penny

(RF 1036) and a fragment of a horseshoe (RF 1062) were both recovered following metal detecting of the spoil from machine excavation of part of layer 84, though presumably this later material became incorporated into the spoil tip during the machining, perhaps from disturbance of the trench edges.

The northern limit of 84 was a stone-built drain, 176. It comprised a narrow channel, 0.23m wide, aligned ENE-WSW, lined with walls of coursed limestone blocks, three courses high on the north side and two courses on the south, partially overlapping a base of limestone slabs (Plate 5). The drain was not dismantled and its precise constructional sequence remains unknown, though its use was certainly contemporary with that of the surface of 84 and the stone surface to the north (see below). In the eastern half of the trench, the only place where the drain had survived to full height, the difference in level of the two walls was compensated for by material (84) dumped from the south against, and on top of, the southern wall, allowing the large capping stone to be laid horizontally to both seal the drain and serve as a step. Within the drain channel, 177, a grey brown silty material with ochre staining, flecks of charcoal and chalk and small limestone fragments, must represent material which accumulated, perhaps after the drain had become disused, but before its demolition (see below).

At the north end of the trench, excavation was terminated without reaching the base of the archaeological sequence. At the lowest level reached, a horizontal surface, 97, composed of small stones and rounded pebbles, some larger stones and occasional tile fragments set in loam, occupied most of the area (Plate 6). It ran virtually the full width of the trench at the northern edge, lessening in width as it ran south until it measured only 0.65m east to west at its southern limit by the drain. The western edge was only roughly straight, instead progressing as a series of irregular indentations. The edge was abrupt, almost vertical, giving way to 187, a firm grey brown loam containing large patches of yellow mortar and gravel, flecks and patches of charcoal and angular limestone fragments, which ran up to the western limit of excavation. Surface 97 had the appearance of having been well maintained, with indications of patching and repairs, and there were signs of scorching and burning due to occasional fires. Its character suggests that it would have been an external rather than internal feature, probably a yard surface, laid up to the east wall of a building which was later dismantled. Compact yellow grey gravel, 107, extended over most of 97, and must represent a resurfacing. The removal of the structural elements of the building could have resulted in the ragged edge exhibited by both layers, with each indentation perhaps marking the former position of an upright post, though it is not impossible that robbing of a masonry wall would have produced such a result. The deposition of 187 would have followed this, the patches of mortar within having derived from dismantling of the building. Without further excavation, however, these interpretations must remain unproven.

The drain, yard surface and building are assumed to have gone out of use at around the same time. It is interesting to note that the drain survived to its full height up to a point coincident with the edge of the external surface and therefore, by implication, with the south-east corner of the building; perhaps much of the drain was dismantled along with the adjacent building. A large pit, 210, was dug through the remnants of the drain. It measured 1.2m by 0.9m, was 0.4m deep, and was oval in shape, with steeply sloping sides and a flat base. The fill, 211, was grey brown loam with charcoal flecks and fragments, with frequent fragments of limestone rubble, including a large limestone block lying against the southern side. Pottery within the fill dated to the middle or later 3rd century. The pit was sealed beneath a spread of rubble (175) which

extended along most of the length of the drain (Plate 7). Pottery from amongst this rubble was comparable with much from the pit below.

Further rubble, 96, was deposited over the entire northern end of the trench, covering the drain (other than its capping stone) and surface (Fig 7, plan 3; Plate 8). The rubble was composed of large fragments of limestone, most of which were relatively flat, with at least one straight face. They appear to have been placed rather than merely thrown down, though there was clearly no attempt to create an even surface; it would have been difficult (if not positively injurious) to walk upon. The stones undoubtedly derived from the demolition of a building or buildings, and may have been spread out with the intention of levelling the site for further occupation. Pottery within and beneath the stones was dated to the late 3rd century.

A dark grey brown sandy loam with frequent pebbles and chalk flecks (10) sealed the rubble and extended the entire length of the trench. The accumulation of this material must be contemporary with continued occupation in the vicinity, as well as, ultimately, the abandonment of the settlement. It was the only deposit to contain undoubted 4th century pottery, with Dalesware dishes and a pentice beaker probably from the Nene Valley. This layer must be seen as a broad equivalent to layer 2 in Trench E.

A slightly different material was noted at the interface between the topsoil and layer 10 in the northern part of the trench. 14 was a grey brown loam containing pebbles, flint nodules, limestone fragments and chalk flecks. Pottery within it reflects its position at the base of modern ploughsoil; small fragments of 2nd to 4th century Roman pottery mixed with 19th/20th century wares.

Trench H

Trench H was cut with the intention of sampling the ENE-WSW ditch which was recorded in Trenches A and B. The geophysical survey indicated that, rather than maintaining a straight course, the feature began to curve slightly towards the north-west, and it was hoped to confirm its existence. However, no sign of such a feature was detected despite very thorough investigation, and unless the subsoil surface had been so distorted by later ploughing as to disguise any distinctions in the soil, it must be concluded that the ditch was not a continuous feature and that our trench found a gap. There were no archaeological features visible other than a modern land drain and numerous modern ploughmarks.

Trench I

(Fig 8)

The excavation of Trenches E and G to the east had already confirmed the presence of archaeological features for some distance south of the presumed course of the Roman road, and this trench was intended to determine the southern limit of such features in this area of the site. The trench was targeted on a specific anomaly highlighted on the geophysical survey and interpreted as a pit. While this feature (78, not illustrated) turned out to be modern in date, excavation of the trench successfully fulfilled its other objectives. As had been the case in Trenches E and G, all of the features, other than the modern pit, were sealed beneath a subsoil layer (72, see below), and this was removed by machine. The excavated features will be described from north to south.

Overlying the natural sand at the northern end of the trench was a spread of fine chalk gravel with moderate medium limestone fragments throughout (278). It was partly removed by machine excavation of the overlying subsoil layer (see below), but ran across the full width of the trench and extended 1.08m south from the limit of excavation. The deposit was very loosely packed, and it seems unlikely to have been laid as a surface, though it was certainly not a natural feature. It may have been dumped to make-up ground for building activity.

A few metres south of 278 was 277, a spread of medium to large limestone fragments within a matrix of grey brown sand, extending the full width of the trench. Along the eastern side, some of the fragments appeared to form a distinct line aligned NNE-SSW, with a large horizontally-set limestone block at its southern end, while a layer of orange sand and gravel overlay the stones to the north. It is possible that these are the sparse remains of foundations for an essentially timber-built building, the elements of which would have been raised on dwarf walls of stone, the large limestone block acting as a padstone for an upright post. The stones extending west from this may have originally supported a perpendicular wall.

Further south, ditch 95 ran approximately E-W across the trench. It was 1.61m wide and 0.57m deep with a steeply sloping southern side, dropping almost vertical near to the base, and a gentler (45°) northern side. The base was gently rounded in profile, with a slope to the south. Fill 94 was a dark grey brown sandy loam containing moderate small to large limestone frags (concentrated in the southern part of the fill), moderate small chalk and flint fragments, moderate charcoal flecks and oyster shells. There were frequent pottery sherds, concentrated, like the stones, along the southern side; dating of the pottery was predominantly late 2nd or early 3rd century, though the rim and handle of a colour-coated flagon may be late 3rd or even early 4th century.

The rounded northern end of linear feature 73 lay 2.5m south of ditch 95. This was a N-S running feature, 17.48m long, 0.63m wide and 0.21m deep, with a "V"-shaped profile and a flat or rounded base (Plate 9). At its southern end it overlay ditch 156 (see below) and was in turn cut by another. The sides were not regular, occasionally bulging where there were denser concentrations of limestone blocks in the fill, though the feature ran generally straight. At approximately three-metre intervals, the base contained roughly oval indentations, often directly beneath concentrations of stone within the fill. The fill (74) was a firm grey brown sandy loam with frequent to moderate small limestone and chalk fragments and moderate small flint fragments towards the base, with concentrations of medium to large limestone fragments in occasional

clusters. It is probable that this feature was a construction trench for a wall of a timber building, the upright members of which were set within the trench and packed around with stone. The spacing of the indentations in the base and the clusters of stone in the fill indicates that the major uprights were positioned at intervals of roughly 3m, there being a total of seven, though there are likely to have been intermediate timbers to judge by the presence of some smaller groups of stone. While the building appears to have been open to the north, this may be because the E-W walls were not load-bearing and did not need sub-surface foundations. At the southern end, later ditches have obscured whether the feature turned either to east or west, if indeed it did. There were no indications as to whether the interior of the building lay to the west or east. The fill of feature 73 contained some pottery, dated to the late 2nd or early 3rd century.

Just over 10m from the northern end of feature 73, it cut across two shallow linear features, both of which ran E-W from the western limit of excavation and had rounded terminals a short distance beyond 73. The earliest, 123, was 1.4m long, 0.36m wide and only 0.04m deep, with sides sloping gently to a rounded base, filled with a firm yellow grey sand with occasional small chalk flecks mixed with lenses and patches of white and yellow sand (122). It was cut along its north side by 127, of similar length, 0.45m wide and 0.07m deep, filled by a similar fill (126). It is possible that these features were structural in origin, being shallow slots for wall timbers, though traces of any parallel walls (probably to the south) must have been removed by later features. There was no pottery in either fill, while the relatively clean nature of the fills might imply a short period of use.

Around 15m from the northern end of feature 73, it was itself cut by two parallel linear features, both of which ran E-W across the width of the excavation trench. The earliest, 133, was 0.52m wide and 0.19m. Only the steep north side survived, meeting a base which continued to slope gently southwards. The fill, 132, was firm grey brown sand with occasional charcoal flecks in the upper parts. The southern side of 133 was cut away by 129, 0.58m wide and 0.24m deep. It had very steep, parallel, sides which broke slope gradually into a slightly rounded base. The fill, 128, was a firm light yellow grey brown sand with no inclusions. Pottery from the fills of both features was closely similar and dated to the closing years of the 2nd century, possibly into the earlier 3rd century. Elements of these assemblages were paralleled in the large pottery groups from the ditches just to the south, and they were doubtless contemporary (see below). Both 129 and 133 may have had structural origins, representing the construction of successive structures, though it is possible that the earlier cut was for the insertion of a structural element which the later cut subsequently removed. Either way, if they were part of a building or buildings, they had no counterpart further north which could be regarded as representing parallel walls, and their contemporaneity with the ditches discounts any counterpart to the south. It is probable therefore that they had in some way functioned along with the ditches.

Ditch 156 was the earliest in a succession of ditches which ran E-W across the full width of the trench (Plate 10). It was over 1.8m wide and 0.67m deep, although only the lower part of the south side survived it appears that ditch would have been broad (up to 2.5m wide) with gently sloping sides and a rounded base. The fill (155) was basically a firm light grey or yellow grey sand with a lens of grey clayey sand near the base, and aside from occasional charcoal flecks and small limestone fragments in one area, it was free of inclusions, including finds. This would tend to imply that the ditch was open for

only a short period of time and/or it was so far removed from areas of occupation that it collected little or no finds during its period of use. As previously stated, wall trench 73 cut through the fills of ditch 156, and was in turn cut by ditch 76. This was another broad and shallow feature, the southern part of which had been truncated, with a width of at least 1.31m (up to 2.7m before truncation) and a depth of 0.43m. Initially, the north side sloped fairly steeply, becoming more gradual and merging into a slightly concave base. The fill, 71, was a firm grey or light yellow grey sand becoming darker grey at the base, with inclusions of occasional charcoal flecks and small fragments of flint, chalk and limestone. A large quantity of pottery was recovered from this ditch, the bulk of which consists of sherds of colour-coated bag-shaped beakers with cornice rims, together with small flagons, boxes and box-lids, and other table wares. Much of the material may have been imported from North Gaul or the Rhineland, and seems to form a chronologically homogeneous assemblage, dating from late in the 2nd century (possibly after c.AD 180) or the early years of the 3rd century.

The southern side of 76 was cut by ditch 151, a ditch of very different profile which survived to its full width. It was 1.97m wide and 0.88m deep, with steep sides which changed inclination slightly about half way down, eventually breaking slope fairly sharply into a flat, parallel-sided base, 0.16m wide. The base of the feature was cut into chalk gravel, which here ran beneath the natural sand at a depth of c.4.3m OD. The fill of the feature (150) was essentially grey, grey brown and yellow grey sand, layered in lenses and patches, with moderate to occasional small and medium fragments of limestone, chalk and flint. Towards the base was a layer of peaty grey black clayey sand with lenses of lighter yellow/light grey sand, and lenses of yellow sand at the sides are assumed to have been natural material which slumped into the open ditch. The very base contained a mix of light grey sand and chalk gravel derived from the gravel layer through which it cut. Pottery from the fill was identical to that from ditch 76, which it cut, and it is probable that material from the earlier feature was simply redeposited in the fill of the later. The latest ditch in the sequence was 149, 1.2m wide and only 0.26m deep, with gently sloping sides and a rounded base. The fill (148) was a firm dark grey brown sandy loam with frequent pottery sherds, occasional small to medium limestone fragments and small chalk fragments. It must be considered a possibility that ditch 149 was merely the interface between two contrasting fills of the same feature (151). The redeposition of pottery from an earlier feature is again assumed to be the case, with fill 148 containing more of essentially the same types described above. An unusual addition, however, was a tiny applique human face mask (male) in red-brown ware (Fig 13; see Objects of Fired Clay in THE FINDS).

The two small intercutting linear features (129 and 133) just north of the ditch complex can, on both stratigraphic and pottery grounds, be assumed to be contemporary with one or all phases of the ditches, except 156, which is clearly earlier. These slots may have held elements of a fence or timber wall which accompanied the ditches in their role as boundary markers; a defensive role is not out of the question for these ditches, but would seem unlikely given the close proximity of the defended area to the west.

The excavation trench extended over 3.5m south of the ditches without encountering further features, and the subsoil layer which was found to seal all features of Roman date was beginning to thin out in this direction. Layer 72 was a light brown grey sandy loam with inclusions of pottery, bone and limestone, varying in thickness from 0.5m at the north end of the trench to less

than 0.2m at the south. Some of the pottery recovered from this layer was clearly derived from the features which it sealed, a few sherds actually joining with those from the fills below, and while this is to some extent the product of the machine removal of layer 72, it is likely that some of the features were originally cut from a level *within* the layer; it represents gradual accumulation throughout the period of occupation. The latest of the pottery was undoubtedly mid 3rd century or later. At the extreme northern end of the trench, the sealing layer was seen to be darker in colour and slightly looser than elsewhere, and it was assigned a separate context number, 77. There was, however, no clear distinction between the two deposits.

Trench J

This trench was cut in the opposite corner of the same field as Trench I, with the aim of intercepting and sampling linear anomalies on the geophysical survey. No feature was encountered which corresponded to a N-S anomaly running close to, and parallel to, the eastern field edge, though another running roughly E-W was found to be an iron water pipe. Two probable medieval or post-medieval plough furrows (not numbered) and two ceramic land drains were uncovered, but there was no trace of any, more ancient, features. In particular, there was no equivalent to the subsoil layers seen in trenches further north, such as layer 72, recorded in Trench I. The layer must have petered out completely somewhere in the ten-metre gap between Trenches I and J.

Trench K

(Fig 9)

Trench K was situated roughly parallel to the southern site boundary, with the aim of investigating the intersection between two linear anomalies on the geophysical survey. The expected intersection was not however encountered, and even when errors were later detected in the location of the geophysical survey grid within this field, and the trench extended accordingly, only one of the anomalies turned out to be a *bona fide* archaeological feature.

Ditch 98 survived immediately beneath the modern ploughsoil, cutting directly into natural sand (Plate 11). It ran approximately NNW-SSE, was 1.8m wide and 0.8m deep, and had parallel, steeply-sloping sides (c.45°) and a rounded base. The eastern side had experienced severe slumping of the natural sand down the ditch side, creating a partial step in the slope. Three different fills were distinguished. The primary fill was 103, a sticky dark grey clay, differing markedly in consistency from those above it. Fill 101 was firm grey clay with flint and limestone fragments, above which was 99, a band of compact white clay with flint and limestone fragments. The lowest fill presumably derived from the accumulation of material within a water-filled feature, while the character of the later fills seems to point to a deliberate and well consolidated infilling of the ditch following its disuse. No pottery was recovered from the 1.5m length of ditch sampled.

Five metres west of the ditch, a wide band of dark soil, and several much narrower bands west of that, betrayed the existence of a series of closely-spaced plough marks aligned approximately NE-SW (Plate 12). At least five

parallel furrows, all very shallow, lay beneath the wide band of soil; 154 was a firm grey brown sandy loam with limestone and flint inclusions. To the west were at least five more: 166 was 0.15m wide and 0.04m deep; 167 was 0.17m wide and 0.07m deep; 168 was 0.19m wide and 0.1m deep; 169 was 0.22m wide and 0.11m deep; and 170 was 0.2m wide and 0.05m deep. All were filled with a grey brown sandy loam, distinct from the overlying topsoil. These furrows were set closer together than others recorded elsewhere on the site and were on a quite different alignment. A single sherd of late 1st to mid 2nd century Roman rusticated ware was found within 154, and although it could have been a residual find, it does indicate a possible Roman date for these features.

Trench L

(Fig 10)

This trench confirmed the existence of the NNW-SSE feature seen on the geophysical survey, apparently a continuation of the ditch seen in trench N, though the survey seemed to indicate that they were not, in fact, continuous. Further examples of plough furrows were also recorded, probably from ridge and furrow.

Ditch 135 was 2m wide and 0.7m deep, with a very steep, slightly concave, western side and an less steep ($c.45^\circ$) eastern side, merging into a rounded base. Two fills were distinguished. The primary fill, 140, was a dark grey sticky sandy silt, overlain by 136, a soft grey sandy silt containing occasional pottery and flint fragments. While this was appeared to be a continuation of ditch 98 in Trench K, the upper fill here is perhaps less likely to have been the result of deliberate infilling following disuse of the feature, and may have accumulated over a relatively long period of time. Fill 136 contained several pottery sherds of 2nd or 3rd century date.

West of ditch 135 were three much shallower features, running N-S across the width of the trench, and all are assumed to have been plough furrows. 80 was 1.7m wide and 0.23m deep, with gently sloping sides merging imperceptibly into a rounded base. Fill 81 was a firm dark grey sandy silt with heavy brown staining throughout. A few metres west were two adjacent shallow features, though it proved impossible to ascertain the relationship between the two, if indeed they were not merely elements of the same furrow. 82 was at least 1.4m wide and 0.15m deep with a saucer-like profile, and 109 was at least 1.3m wide and 0.19m deep with a slightly more angular profile. Both fills (83 and 110) were firm dark grey sandy silt, with some mottling and staining. Further west was feature 89, 1.7m wide and 0.18m deep, saucer-like in profile. Fill 90 was a firm grey sandy silt.

Trench M

Other than a relatively modern trackway and a service trench, there were no archaeological features uncovered here. The error in the location of the geophysical survey in this field led to the anomaly which represented the trackway (no longer visible on the surface), being interpreted as a buried field boundary.

Trench N

(Fig 11)

The foundations of disused garages and sheds and the general spread of rubbish in this particular part of the site had made any attempt at geophysical surveying impossible. Therefore, with no foreknowledge or sampling of any specific features in mind, the position of the single trench in this area was conditioned by the position of the modern structures.

Ditch 113 ran E-W across the full width of the trench, close to its northern end. It was 1.14m wide and 0.38m deep with relatively steep sides and a narrow, rounded base. Fill 114 was a soft grey brown sandy loam with fragments of pottery, flint and bone. The few pottery sherds were medieval in date.

Nine metres south was ditch 120, 2m wide and 0.8m deep, running approximately E-W across the trench. The sides were fairly steep, with a break of slope about half way down, below which the angle of slope changed, becoming steeper to the south and gentler to the north, eventually tapering to a rounded point. Two fills were distinguished; 121, the lowest, was a soft and moist dark grey sandy silt containing some pottery, overlain by 300, a light grey sandy silt. The pottery consisted of sherds of amphora, flagon, Dalesware and South Gaulish samian, the group dated as a whole to the 3rd or earlier 4th century. To judge by its primary fill, ditch 120, like the NNW-SSE ditch 98/135 (sampled in Trenches K and L), appears to have borne water, and it is conceivable that the two features were at one time linked.

A single plough furrow ran for much of the length of Trench N, cutting across both 113 and 120. 116 was up to 0.4m wide and 0.12m deep, with gently sloping sides merging into a rounded base. The fill (117) was a soft grey brown clay sand containing fragments of pottery, flint and limestone. The single sherd of pottery was Humberware, of 14th- to 16th-century date. This furrow was on a similar alignment to those in Trench L, and may well have lain within the same field.

A shallow irregularly-shaped pit, 118, cut into the fill of furrow 116. It measured 0.46m by 0.3m, and was only 0.04m deep. The feature was so shallow that it seems likely to have been only the base of a pit which was largely removed by machining. Within the fill, a soft dark grey loamy sand (119), was the near complete skeleton of a domestic cat. Given its shallowness, its stratigraphic position and the good condition of the bone, this was almost certainly a modern feature.

Trench O

Trench O was positioned in an area which was, according to the geophysical survey, devoid of archaeological features, with the intention of ascertaining if this was indeed the case. It was.

Discussion

Most features were only sampled, and in Trenches E and G in particular, there were many which could not be even partially excavated within the allotted time. In terms of evaluating the extent and survival of archaeological deposits, this is not particularly important, though any understanding which we may have of the history of this site is likely to be severely limited by incomplete excavation and the small areas which were investigated. Despite these limitations, an attempt will be made to describe the development of the site through time.

The earliest datable features recorded were two pairs of parallel ditches in Trenches E and G, both of which contained early 2nd century pottery. Those in Trench E (164 and 216) were aligned ENE-WSW, while those in Trench G (228 and 231) ran E-W, though not apparently running as far east as Trench E. If these were short lengths of essentially straight features, then their projected lines would have intercepted at a point within, or close to the east side of, Trench G. It is perhaps more likely, however, that they were parts of two roughly parallel curving ditches, the curvature of which would have been imperceptible on the short lengths observed (see Fig 12). It is not clear whether the ditches were successive or contemporary, but to judge by their dimensions, they are more likely to have functioned as boundary markers, rather than as drains, defensive works or for the control of livestock. As far as their dating is concerned, they would appear to be contemporary with the general expansion of the civilian settlement over the area of the former fort and beyond, termed Period V (AD 125-200) in the report of the excavations of the fort and walled town (Wacher 1969). The limits of this *vicus* have not been determined, though it is probable that a road led east from this settlement, passing close to the north side of this site. The presence of a Roman road east of Brough has been confirmed on aerial photographs, and its association with the Roman villa at Welton Wold, established in the early 2nd century, shows that it was already in existence by that date. The curving ditches mentioned above may have been marking the rear boundaries of properties alongside this road, and though very little was seen of the area enclosed by the ditches during these excavations, it is assumed that most of the buildings within such properties were likely to have been adjacent to the road. Fig 13 is an artist's impression of what may have been a similar type of roadside settlement, based on evidence from such settlements as the small Roman town at Hibaldstow, part of which was excavated by the Humberside Archaeology Unit in 1988. The buildings alongside the road were predominantly those known as strip buildings, long buildings which occupied a relatively short length of the frontage. They are generally regarded as having functioned as small-scale industrial or craft workshops, the products or services of which were sold directly from there, with residential and domestic accommodation to the rear and on upper floors. Behind the buildings were yards and open spaces, used for a variety of purposes ranging from industrial through to agricultural or horticultural. The rear boundary of each plot was marked by a ditch.

The area of land enclosed within these roadside plots apparently increased towards the end of the 2nd century, with ditches being established further south (85 and 87 in Trench E and 76, 149, 151 and 156 in Trench I; see Fig 12). These ditches were recut on several occasions, indicating a relatively protracted period of occupation, and this is also reflected in the large number of features which were recorded north of them, particularly in Trenches E and I. In Trench I, the different phases of the ditch were associated with structural features, including a timber building foundation (post-in-trench) and the fence slot which post-dated it. In Trench E, there were numerous features, some of which have

been interpreted as representing structural elements of several phases of timber buildings, as well as pits and a single burial. The date range for these features extends into the 3rd century. In Trench G, it is presumed that at least some of the unexcavated features beneath layer 84 dated to this period. The difference in the alignments of features in the western and eastern parts of the site continued. This must reflect changes in the alignment of topographical features to the north of the site, perhaps local variations in the course of the road which have influenced the layout of the properties which adjoined it.

In the late 3rd century there may have been a contraction in the enclosed areas. In Trench I, there were no features of that date other than a single E-W ditch (94) towards the northern end of the trench, while in Trench E, only the two possibly structural features at the north end (191 and 193) and a slot further south (203) contained pottery which was clearly late 3rd century or later, and there was no ditch which could be regarded as having formed a southern boundary at this date. In addition, the majority of the excavated features in Trench G, which did not extend as far south as Trenches E and I, were late 3rd century or later in date. The predominance of late features in this trench, in contrast to the others, is probably also an indication that adjacent roadside plots were occupied for different lengths of time, Trench G lying within a property which was occupied until at least the early 4th century. The rubble layers are presumed to have derived from the demolition of relatively substantial buildings in the vicinity of Trench G, and the well-maintained external surface and drain are further indications that this was not a short-lived phase of occupation.

South of the roadside settlement, the land was likely to have been used for agricultural purposes, and several ditches were located which must have served to drain, and probably also demarcate, the fields there. Ditches 98/135 and 23/67 ran NNE-SSW, enclosing a strip of land c.70m wide and at least 150m long. Traces of plough marks, of probable Roman date, were also encountered, though these were on a different orientation to the ditches.

That occupation continued in one property after it had ceased in others, is probably indicative of a piecemeal process of abandonment in this area of the Roman settlement. It was gradual rather than cataclysmic, there being no trace of destruction of any of the latest structures. All had apparently been dismantled. This part of the settlement had apparently reached its fullest extent in the late 2nd or early 3rd century, gradually declining during the 3rd and 4th centuries. The reason for this is not clear. The fortification of an area further west in the early 3rd century (Period VI), the conversion of these defences to stone, and the addition of external bastions in the late 3rd and early 4th century (Periods VII and VIII) might imply that there was a concentration of occupation within the fortified area at the expense of areas outside, though it is possible that the defended area was a purely military establishment. Certainly, there were few discoveries within the walled circuit of large and ornate public and private buildings which are normally found within Roman towns, though the excavated areas were relatively small. The precise status of occupation within the walls at Brough, whether military, civilian or some combination of the two, is still a matter for some debate, and to this date remains unresolved.

All features of Roman date were sealed beneath a distinctive layer of brown loam derived from soil accumulation during occupation of the settlement and its subsequent disuse, and this layer was found to extend little beyond the southern boundary ditches. As such, it provides a good indicator of the extent

of Roman settlement at the northern end of the site; in retrospect, it can be seen that the geophysical survey had in fact detected the southern edge of this deposit, a change in resistance values along a line running ENE-WSW across the site (see Fig 12). It was presumably the presence of this "blanket" layer which inhibited the detection of those features now known to lie beneath it.

There is no evidence that, following the decline and decay of the Roman settlement, anything other than agriculture was practised on this site until this century. Traces of medieval ridge and furrow were widespread, though there were areas where it was clearly absent, implying division of land into both arable fields and pasture. Marks of later, post-medieval ploughs were also encountered in places, generally narrower and closer together than their predecessors, and the site was criss-crossed by ceramic land-drains, 18th-century or later. Conversion of the site to a market garden in the more recent past has left its own distinctive pattern of ploughing through the use of rotary ploughs and cultivators, and created the rich, dark topsoil which covers the site today.

THE FINDS

The finds collected from excavated contexts have been assigned to various categories depending on their form or material of manufacture, and these various categories are reported on below, in the following order:

The Pottery
The Animal Bone
Metalwork
Coins
Glass
Objects of Fired Clay
Objects of Stone
Brick and Tile
Baked Clay or Daub
Fuel and Residues
Slag

Authorship of the individual sections is as specified. Finds of special note, such as metalwork, have been given an individual Registered Find (RF) number. A full list of RFs can be found in Appendix 1.

Introduction

All of the pottery was examined and a short description with spot-date was compiled for each context. This has been incorporated in the excavation text where appropriate. A basic quantification of the number and weight of pottery sherds by context was carried out, and the average sherd weight (ASW) was calculated. This information is presented below, in Table 1.

Table 1: *Pottery* Quantification: number and weight of sherds by context.

Context No.	Number of sherds	Weight (in g)	ASW
1	85	1020	12.1
2	171	1918	11.2
5	9	88	9.8
6?	3	15	5.0
9	4	32	8.0
10	416	6651	16.0
12	23	190	8.3
14	44	448	10.2
16?	2	13	6.5
19	3	10	3.3
35	2	5	2.5
40	2	4	2.0
42	1	6	3.0
44	3	12	4.0
70	3	10	3.3
71	407	1827	4.5
71/150	54	140	2.6
72	273	2158	7.9
74	18	192	10.7
75	17	26	1.5
77	11	55	5.0
79	6	27	4.5
84	172	3516	20.4
88	22	331	15.0
94	142	1908	13.4
96	94	1269	13.5
114	4	10	2.5
117	1	26	26.0
121	9	101	11.2
125	9	140	15.6
128	3	38	12.7
128/232	47	282	6.0
132	4	33	9.2
137	17	352	20.7
142	1	7	7.0
148	309	1234	4.0
150	372	1445	3.9

Context No.	Number of sherds	Weight (in g)	ASW
154	1	6	6.0
161	16	160	10.0
165	8	189	23.6
175	9	196	2.2
180	1	1	1.0
182	11	80	7.3
184	4	32	8.0
186	1	30	30.0
194	13	190	14.6
195	3	36	12.0
199	3	16	5.3
201	1	6	6.0
202	11	56	5.1
207	2	8	4.0
211	41	651	15.9
217	11	81	7.4
218	3	176	58.7
223	2	14	7.0
227	1	4	4.0
229	2	20	10.0
232	7	46	6.6
237/238	28	683	24.4
TOTAL	2951	28303	9.6

Discussion

(Detailed identifications of the pottery are to be found in the site archive. The following discussion serves to indicate the nature and importance of the main assemblages).

The majority of the pottery recovered dates from the 2nd to the 4th centuries AD, and is of types familiar from other Roman sites in Humberside, allowing the excavated features to be spot-dated with a fair degree of confidence. Further, more detailed, analysis of these assemblages may be expected to refine this dating. Small amounts of 1st-century pottery were also found in later contexts, most notably a South Gaulish samian vessel (Form 29) the manufacture of which may even pre-date the foundation of the Roman settlement at Brough in c.AD 71. It is convenient to note at this point that the samian from the site, which includes some unusual forms, is worthy of being submitted for specialist reporting.

Although much of the pottery is familiar, the large amount of material (1142 sherds, 4646g, ASW 4.06g) found in ditch 76 and its recuts constitutes a most unusual assemblage which is probably unique in Eastern England, and which poses several problems of interpretation. The main points of interest are

enumerated below:

1 The assemblage consists almost entirely of fine tablewares, *ie* beakers (drinking vessels), so-called "Castor boxes" (lidded bowls), and small single-handled flagons. An unusual type of vessel known as a *cantharos*, ultimately derived from Classical Mediterranean metal prototypes, is also present, and may be the first example reported from the region. The coarse kitchen wares which would be expected to feature in a normal rubbish deposit are virtually absent. Various considerations suggest a later 2nd- or early 3rd-century date for the assemblage.

2 Most of the vessels can be assigned to two main pottery "fabrics", probably indicating derivation from two different production centres. A highly distinctive set of decorative motifs (so-called "hairpins" and "wishbones" *en barbotine*, rare in Britain) is associated with one of these fabrics and suggests either a source in North Gaul, or at a production centre elsewhere in Britain which was producing forms influenced by the Gaulish repertoire. The products in question do not appear to derive, however, from a *known* British manufactory. It is also of relevance in this regard that *definite* links with Gaul are attested by a Central Gaulish "Rhenish Ware" cup imitating samian Form 40 which was found in context 96. Some forms in the second fabric (particularly bowls with horizontally in-turned rims) may point to a source in the Rhineland.

3 The first of the above-described fabrics includes several "wasters". These are vessels so grossly distorted during firing that they would not be saleable. They are not normally found far from the kilns in which they were made, their presence usually being taken as an indicator of pottery production in the vicinity of the find spot. It is theoretically possible, therefore, that tablewares copying Gaulish vessels were actually being made at Brough and that at least part of the fill of ditch 76 represents the waste-products of a local pottery industry. Against this interpretation is the fact that similar vessels have not been found in earlier excavations at Brough or the surrounding region, which would almost certainly have been the case had local manufacture been in question. It is conceivable, of course, that wasters may have been included, not necessarily inadvertently, in an imported consignment of pottery.

4 Preliminary assessment suggests an unusually large number of vessels in a limited range of forms is represented in the short, shallow stretch of ditch which was emptied, *viz.*: between seventeen and thirty-seven different beakers, at least three boxes and three box-lids, between seven and nine flagons, a *cantharos*, six bowls and vessels with inturned rims, and sundry other vessels.

As will be apparent from the above, the main questions of interest concern the reason for the unusual composition of the assemblage, and the origin of the material. Satisfactory answers can not be offered without further work on this very fragmented pottery (see average sherd weight), but the possibility that the ditch may have been an appropriate place to dispose of specialised categories of ceramic rubbish emanating from a nearby building such as an inn, pottery shop or warehouse, may at least be mooted. There may, of course, be no need to envisage more than a single dumping episode.

Recommendations

Preliminary consultation with Valerie Rigby, of the British Museum, has confirmed the importance of this assemblage, and the likelihood that it is unique within

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Recommendations

Preliminary consultation with Valerie Rigby, of the British Museum, has confirmed the importance of this assemblage, and the likelihood that it is unique within

the wider region. It offers the potential of greatly expanding our knowledge of *Petuaria's* trade- and other connections in the 2nd century, as well as the possibility of greater insight into the kinds of establishment to be found in the extra-mural area at this period. Finally, the assemblage is of the first importance in terms of Romano-British pottery studies as a whole. For all these reasons, and in light of the fact that it is over thirty years since Roman pottery from Brough was last reported upon, it is regarded as *essential* that the pottery from the site should be brought to full publication.

Introduction

Thirty-five of the excavated contexts produced animal bone. A total of 559 bone fragments were recovered of which it was possible to identify 288 fragments (59%) to species (see Table 2). Preservation of the bone was, in general, poor, and the high degree of fragmentation seems to have been largely post-excavation, *ie* it had broken during storage or transit.

The majority of bone-bearing features were Roman in date, and for this reason, and given the uniformity of much of the assemblage, they have been considered as one group. In addition, the number of bones being considered was so small that further subdivision would render the results meaningless.

Methodology

The following information was recorded wherever practical:

- 1 Identification of the bone to species or genus.
- 2 Identification of the bone fragment to skeletal element *eg* femur, humerus etc.
- 3 Epiphyseal fusion. Systematic recording of the epiphyses, fused or unfused.
- 4 Recording of the tooth eruption and rates of wear in the mandibles of cattle, sheep and pig (Grant 1982; Bull and Payne 1982).
- 5 States of preservation. Counts of heavily abraded, gnawed and charred bones were made, and the number of unidentifiable fragments within each context were recorded.
- 6 Measurements were taken on the more complete longbones following the von den Dreisch system (1976).
- 7 Butchery marks were described as fully as possible.
- 8 An attempt was made to assess the relative abundance of carcass components for each animal represented.

Species identification and the states of preservation of bone fragments are presented in Table 2, while Table 3 presents the abundance of carcass components, by species. Detailed listings of the identification of each bone fragment by context, and the various biometric measurements, have not been reproduced here, but reside with the site archive.

Table 2: Animal Bones Species identification and states of preservation, numbers of fragments by context

Context	Species identification										Preservation			
	C a t t l e	S h e p	P i g	H o r s e	C a t	H u m a n	R e d e r	G o a t	I d e n t i f.	U n d e r t.	T o t a l	A b r a d e d	G n a w e d	C h a r r e d
1	1	2	2					5		5				
2	6	6		1				13	12	25		1	1	
5	1							1		1				
10	29	10	3	1			1	44	37	81		2		
51	3							3	12	15				
71	1	6						7	18	25				
71/150	1							1	5	6				
72	6	10	2					18	18	36			4	
74	4	1						5	27	32				
79		1		1				2	6	8				
84	18	4	4	2				4	32	21		3		
88	14	2	3					19	46	65				
94	3	2						5	7	12				
96	8	5						13	10	23		1		
101				3				3	10	13		1		
119					43			43		43				
121	6							6		6				
125	4					1		5		5				
128/132	2							2	4	6				
137	11	3		2				16	15	31				
148	1	1		1				3	3	6				
150	2	2		1				5	5	10				
155									3	3				
161	7							7	5	12				
165	1	1						2	3	5				
177		1						1	1	2				
182	1	1						2		2				
184									3	3				
194	1		1					2	4	6		1		
195			1					1		1				
211	1		2					3	3	6				
218	7	1						8		8		8		
227		2						2		2				
229		1						1		1				
232				1				1		1				
237/238	5			3				8		8				
Total	144	62	18	16	43	1	1	4	289	270	559	8	9	5

Table 3: *Animal Bones* - Carcass components

	Cattle	Sheep	Pig	Horse
Head	38	9	5	6
Fore limb	17	15	3	4
Hind limb	18	29	5	5
Ribs	17	2	1	-
Scapula and Pelvis	14	1	-	1
Vertebrae	6	3	2	-
Phalanges	15	-	1	2

Results

Cattle

Cattle made up approximately 50% of the total identified assemblage, being spread throughout most of the recorded contexts. When a study was made of the carcass components it seemed that most of the skeletal elements were being represented in similar proportions. The seemingly disproportionate number of head bones was due to the number of loose teeth included in the count and should not therefore be regarded as a true reflection of the relative proportions of cattle bones being deposited. Unfortunately, the large number of loose teeth meant that there were no recorded cattle mandibles with teeth still *in situ* and thus for ageing the cattle it was necessary to rely on the epiphyseal fusion data. Of the recorded epiphyses, almost all were fused, the exceptions being a proximal tibia, a single 1st phalanx, and two vertebra. On the basis of this rather crude data it was possible to say that there were no neo-natal or juvenile calves represented in the assemblage. Given that no estimates were made of the minimum number of individuals (the number of bones involved in each Roman phase being too small to enable an accurate estimate), it was not possible to determine whether the cattle represented were fully adult or considerably older. None of the cattle bones showed any signs of disease or injury which might have indicated extreme old age.

A number of the cattle bones had been butchered. Butchery included three metapodia which had been sliced longitudinally, perhaps to facilitate the removal of bone marrow, and three astragali that had been chopped through obliquely, to remove the hooves of the animal. Other butchery included the slicing through of the scapulae, possibly for de-fleshing or jointing out, and a mandibular hinge fragment which had been sliced through laterally, enabling the removal of the jawbone from the rest of the skull.

Sheep

A total of 64 sheep bones were recovered from the site, spread throughout many of the Roman features. When a study was made of the carcass components it revealed that whilst most skeletal elements were represented, fragments of tibia were over-represented. Even allowing for the fact that the tibiae were not all complete, their numbers were not matched by other hind limb bones such as

femur or metatarsal. This must, therefore, be some form of skeletal selectivity, the lower leg being selected, most probably for food. Only two sheep bones exhibited butchery marks, those being a tibia that had been sliced laterally through the diaphysis, and a fragment of distal humerus that had been chopped through obliquely.

A single sheep mandible was recorded with teeth still *in situ*. This was an individual with all of its permanent teeth in wear, including the third permanent molar which had just come into wear, and this indicates an age at death of approximately 1-2 years. The epiphyses were all fused with the exception of a single distal tibia, however as this is a late fusing bone it would seem that in terms of the available ageing data, the sheep represented were mature.

The position of the nutrient foramen in the femur was recorded in two instances. In one case the foramen was in the proximal position, in the other, the more unusual midshaft locus. However, on the basis of just two examples, it was impossible to interpret the size of the genepool. It was possible to take measurements on some of the complete longbones, and these are detailed in the Biometry Archive.

Other animals

Pig and horse were represented in similar frequencies (16 and 18 bone fragments respectively). In both cases, the bones were spread throughout the site and were not concentrated in any particular phase or feature. Most skeletal elements were represented, and there did not seem to have been skeletal selectivity. Both species were also being butchered, and the assemblage produced a horse radius and astragalus which had been sliced through longitudinally, and a pig humerus that had been sliced through laterally. Context 125 contained a single human premolar, though as this was the fill of a grave which produced a partial human skeleton, the tooth is undoubtedly part of the same burial.

The only other species represented were red deer (a single fragment of antler tine), goat (fragments of horn core and radius) and cat. Context 119 produced an almost complete cat skeleton. The individual was fully mature and in an excellent state of preservation. Unfortunately the feature, a highly truncated pit, was thought to have been modern.

Conclusions

There seemed nothing to distinguish the bones found within the various feature types, *ie* ditches, pits and layers, and it seems likely that the bone, for the most part, was derived from the same source. In terms of the nature of the bone assemblage, this would seem to have been predominantly domestic food waste. Skeletal selectivity was evidenced by the over-representation of sheep tibiae, and this is likely to have been due to the availability of, and possibly preference for, this joint of meat. The assemblage was typical of the period and type of settlement.

Metalwork

Iron

In all, 71 RF numbers were assigned to iron objects, and the majority have been X-rayed as an aid to identification. A significant proportion of these objects were modern in date, having either derived from contexts which are likely to have been modern (such as topsoil) or which were subject to modern contamination, or they were recovered from metal detecting of the excavation spoil heaps. There were however several identifiable fragments which came from deposits regarded to be of Roman date, and these are briefly discussed below.

Most of these objects were nails, of standard Roman types. The majority came from grave 124, where they were clearly components of a box or coffin (RF 1010-1021). Two "joiners dogs" were recovered from contexts 2 and 96 (RF 1032 and RF 1005). These were "U"-shaped bars with pointed ends, driven into adjacent timbers as a means of holding them together, and they are likely to have been relatively common elements within timber-framed buildings. The stone surface 97 (below 96) contained an iron ring which could have derived from equipment such as horse or cart fittings (RF 1025). Layer 2 contained a possible key or latch lifter, though little remained other than the shaft, which was broken at the point at which it had begun to turn (RF 1102). A flat iron plate, shaped rather like a letter "I", came from layer 72, and may have been some form of decorative mount (RF 1083).

Copper Alloy

Only 5 objects of copper alloy were recovered, and all came either from topsoil or from layer 2. While the latter layer was clearly Roman in date, its direct proximity to topsoil is likely to have increased the likelihood of later contamination. Other than one decorated object from 2, probably a fragment of a mounting (RF 1033) of unknown date, the objects were mostly plain strips or scraps.

Lead

One small and unremarkable fragment of lead (RF 1040) came from topsoil.

Coins

Two coins were recovered from metal detecting spoil removed by machine from Trench G. Both have been assigned to layer 84, which was being removed, but it is clear that later material was disturbed and incorporated during this process. The identifications of both coins are provisional and are based on comments by Bryan Sitch, Assistant Keeper of Archaeology at Hull Museums.

RF 1036 A hammered medieval silver penny (long cross), probably a late issue of Edward I, from the Durham mint. Identification is made more difficult because the coin had either been struck off-centre or had been clipped.

RF 1037 A silver denarius of the early 3rd century AD. Possibly Elagabalus, AD 218-22. The low silver content of the coin gives it the appearance of bronze.

Glass

Ten fragments of glass were collected, most of which came from contexts of Roman date. They were either colourless or had a slight blue tinge, characteristics of Roman glass. Some fragments were completely flat and may have been from windows or flat-sided vessels, while others had curved profiles and were clearly vessel glass. One unusual piece (RF 1009), from near the base of layer 2, seemed to part of a vessel with applied decorative bands.

Objects of Fired Clay

Three fired clay objects were assigned RF numbers. Approximately one half of a spindle whorl, about 50mm in diameter, was recovered from layer 84 (RF 1004), and the same layer also produced a gaming counter, 42mm in diameter, cut from a greyware pottery vessel (RF 1030). Also derived from pottery was the small ceramic face (RF 1038) from ditch fill 148, an applique decoration which had apparently chipped off a vessel (Fig 14). It was in a red-brown ware and may be connected with masks on Dechelette 74 jars (mid 2nd century onwards) as in the Wiltshire colour-coat industry (info. P Didsbury).

Objects of Stone

Five RF numbers were assigned to objects of stone.

Two possible flint artefacts, a flake (RF 1117) and a scraper (RF 1095) came from topsoil and layer 77 respectively.

Layer 84 contained several fragments, originally one larger piece, of a lava stone quern, imported from the Continent during the Roman period. No evidence

of working or tooling survived on what was obviously a small part of a much larger whole.

A small rectangular whetstone, 55mm by 34mm by 16mm, with rough bevelled edges, came from layer 10 (RF 1091).

A small fragment of a slate marker, broken at each end, was recovered from topsoil (RF 1116).

Fragments of brick and tile were recovered from 19 contexts, 5 of which produced material of Roman date. The remainder were medieval or post-medieval, and will not be discussed below. Several contexts contained fragments which were too small for positive identification (see Table 4).

Three fragments were easily identifiable as parts of *tegulae*, Roman flanged roofing tiles; two had an orange-red fabric and the third was dark grey and appeared to have oxidised during firing.

Two layers in Trench G (10 and 96) produced significant quantities of a reddish-brown, shell-gritted tile, much of which displayed a slight curving in one dimension only. The convex face displayed occasional finger striations and finger prints, and two joining fragments from 96 displayed not only 'strike' marks but at least five spatula moulding impressions. These must indicate that the tiles had been hand-moulded rather than produced by a wooden frame. One S-shaped tile fragment, 30mm thick, displayed a positive straight edge on which the moulding lip was clearly visible. The concave face on several fragments showed the remains of a cream sandy mortar which occasionally overlapped onto the tile edges. The function of these tiles is not clear, though it is suggested that they represented curved roof-tiles. Their association with rubble from a demolished building or buildings may confirm this. No nail-holes, stamps or graffiti were observed on any fragment. The brittleness of this crude tile is likely to have created problems as a roofing material, and it may be that its use was restricted to relatively low status buildings such as barns or sheds.

Table 4: *Brick and tile*

Context	Description
1	Pantile
2	Brick waster
5	Medieval brick
9	Medieval brick ?
10	Roman brick and tile
12	Post-medieval land drain
18	Medieval roof tile, pantile, brick
19	Brick/tile
71	Medieval roof tile and waster
72	Tile/brick, medieval or Roman?
74	Tile/brick, Roman?
75	Brick waster, medieval. Mortared brick
77	Tile/brick
84	Tile/brick, Roman?
94	Roman tile/brick
96	Roman coarse tile (same as 10)
128/132	Roman tile/brick
150	Tile fragment
175	Tile, Roman

Baked Clay or Daub

Clay was used as a component in many structural features in the past, including ovens, hearths, floors, sill walls and as infilling within timber framed walls. Depending on its particular use, the clay would have been combined with varying amounts of other materials, such as straw, to increase its strength. The presence of fire, whether intentional or unintentional, led to baking of the clay, and fragments of baked clay, often referred to as daub, are relatively common finds on archaeological sites. All the finds of baked clay from this site were from contexts of Roman date. None of the material has been subject to detailed examination to determine its original function.

Table 5: *Baked Clay or Daub* Presence and weight, by context

Context	Description
10	Daub fragments 214g
71	Daub fragments 76g
71/150	Daub fragments 19g
182	Daub fragments 12g
194	Burnt daub 48g
215	Daub fragments 76g

Fuel and Residues

Aside from wood, it is clear that coal was also exploited as a source of fuel; coal fragments were found in several securely-stratified contexts of Roman date, and is unlikely to have been present only as a result of later contamination. Industrial activities or merely the burning of fuel such as coal produces residues such as cinder and clinker, quantities of which were collected from various contexts, as specified in the table below. None of the material has been subjected to any analysis as to its origin.

It is interesting to note that lumps of unburnt coal were fairly common finds in the Roman levels excavated by Wachter at Brough, and analysis of material from an ash pit found by him, showed it to have derived from the burning of coal (Wachter 1969, 69).

Table 6: *Fuel and Residues* Presence, by context

Context	Description
*2	Coal fragments and residues
5	Coal fragments
9	Cinder
*10	Coal fragments
12	Coal fragments and cinder
14	Coal fragments and cinder
40	Residues
42	Coal fragments
*72	Coal fragments
*84	Coal fragments
*96	Coal fragments
*175	Coal fragments
*182	Residues
*194	Coal fragments and residues
*215	Residues

* - denotes context of Roman date.

Slag

Small quantities of various residues, provisionally identified as metalworking slag, were recovered from several contexts: 1, 2, 72 and 84. There was certainly no direct evidence of metalworking apparent in any of the layers or features excavated, and the small amounts make it likely that such activities were sited a fair distance away from the area of this site. Only scientific analysis could identify the industrial processes which had produced this material.

CONCLUSIONS AND RECOMMENDATIONS

Despite the limited area investigated it has proved possible to arrive at some idea of the development of the site through time. The majority of archaeological features, concentrated in the northern part of the site, were parts of a Roman settlement; depending on the interpretation of the major Roman site further west, this was either an extra-mural suburb of a walled town or a civilian settlement adjacent to a military base. The excavated features have been interpreted as representing buildings, yard surfaces, drains and pits within properties bordering on the Roman road which ran east from Brough, and the rear of these plots were delineated by ditches. Although probably established in the early 2nd century AD, it appears that this area of the settlement reached its fullest extent in the late 2nd or early 3rd centuries, declining towards the end of the 3rd century or in the early part of the 4th. Finds from this Romano-British period of occupation were relatively prolific, the pottery in particular providing clear evidence of the use of both imported and locally-produced wares; one group of late 2nd- or early 3rd-century tablewares, from ditches in Trench I, has been recognised as being of national importance, deserving of full and proper publication in an appropriate journal. There were no indications of post-Roman occupation, and evidence of later activity is restricted to medieval and post-medieval plough marks.

A combination of geophysical survey and sample excavation has enabled the limits of the Roman settlement remains on the site to be predicted with some confidence, and it is clear that they occupy a significant area of the proposed development. The extent of features has been shown to closely correspond to that of a brown loam subsoil, the southern edge of which was seen in Trench E and which can be extrapolated across the full width of the site from the geophysical survey (as reproduced on Fig 12). Within this area, any form of development which involves ground disturbance below topsoil (generally around 0.3m thick) will inevitably affect surviving archaeological deposits. In addition, the proposed access road from Welton Road can be seen to run across the presumed course of the Roman road and, by extension, across parts of properties which fronted it to both north and south. Construction of this access could potentially affect the remains of several phases of buildings on both sides of the road.

It is therefore recommended that, either the construction of the access road and of any buildings within the archaeologically-sensitive zone across the northern part of the site be undertaken in such a way as to remove any risk of disturbance to the underlying remains, or, if this is not possible, that construction should be preceded by full and detailed archaeological excavation.

ACKNOWLEDGEMENTS

The excavations reported here were part of an archaeological evaluation commissioned by Persimmon Homes (East Yorkshire) Ltd, to which grateful thanks must be extended, in particular to their Managing Director, Mr K Saunders, and their Technical Director, Mr N A Bowes.

The arrangements for the project were completed by Ed Dennison, Sites and Monuments Officer for the Humberside Archaeology Unit, while administrative support was provided by Zena Ahmed and Mike Endall.

The excavations were directed by Ken Steedman and John Tibbles, with a team comprising: Kath Crooks, Andrew Desforges, Tony German, Phil Lings and Jon Watt. Additional help was also provided by Jennie Good and Andrew Simons from Driffield School, undertaking work experience.

The illustrations are mostly the work of Ian Beck, and the photographs are by Tony German and Ken Steedman.

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APPENDIX

Registered finds

RF No.	Description	Context No.
1001	Incomplete iron nail	39
1002	Tapering iron object - modern screw on X-ray	70
1003	Lava stone quern fragments	84
1004	Clay spindle whorl - broken	84
1005	Iron joiners dog. Heavily encrusted	96
1006	Flat headed iron nail	96
1007	Iron nail shank ?	84
1008	Fragment of glass	84
1009	Fragment of decorated vessel glass	2
1010	Iron nail (coffin?)	125
1011	Iron nail (coffin?)	125
1012	Iron nail (coffin?)	125
1013	Iron nail shank (coffin?)	125
1014	Iron nail (coffin?)	125
1015	Iron nail (coffin?)	125
1016	Iron nail (coffin?)	125
1017	Iron nail (coffin?)	125
1018	Iron nail (coffin?)	125
1019	Iron nail (coffin?)	125
1020	Iron nail (coffin?)	125
1021	Iron nail (coffin?)	125
1022	Skeleton	125
1023	Fragment of translucent glass	88
1024	Iron object - broken into three fragments	97
1025	Iron ring - Heavily encrusted	97
1026	Iron nail. Heavily encrusted	10
1027	Iron nail. encrusted	187
1028	Fragment of green tinted glass	10
1029	Iron nail. Heavily encrusted	84
1030	Ceramic counter	84
1031	Nail	2
1032	Iron joiners dog. Heavily encrusted	2
1033	Cu. alloy object. - medieval?	2
1034	Cu. alloy Flat strip	2
1035	Cu. alloy fragment	1
1036	Silver coin	84
1037	Cu. alloy coin	84
1038	Ceramic face	148
1039	Iron object - buckle?	14
1040	Lead fragment	1
1041	Iron object, heavily encrusted - modern screw	9
1042	Cu. alloy flat strip	1
1043	Fragment of (window?) glass	1
1044	Iron nail in three pieces	9
1045	Iron object, nail shank fragment?	94
1046	Iron slag	94
1047	Glass fragment	94
1048	Glass fragment	94

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1030	Ceramic counter	84
1031	Nail	2
1032	Iron joiners dog. Heavily encrusted	2
1033	Cu. alloy object. - medieval?	2
1034	Cu. alloy Flat strip	2
1035	Cu. alloy fragment	1
1036	Silver coin	84
1037	Cu. alloy coin	84
1038	Ceramic face	148
1039	Iron object - buckle?	14
1040	Lead fragment	1
1041	Iron object, heavily encrusted - modern screw	9
1042	Cu. alloy flat strip	1
1043	Fragment of (window?) glass	1
1044	Iron nail in three pieces	9
1045	Iron object, nail shank fragment?	94
1046	Iron slag	94
1047	Glass fragment	94
1048	Glass fragment	94

RF No.	Description	Context No.
1049	Iron object	U/S
1050	Iron object, encrusted nail?	U/S
1051	Iron nail	U/S
1052	Iron object, heavily encrusted	U/S
1053	Iron object	U/S
1054	Iron object heavily encrusted	U/S
1055	Iron nail	U/S
1056	Iron object	U/S
1057	Iron object	U/S
1058	Iron object	U/S
1059	Iron object	U/S
1060	Iron object. Nail?	U/S
1061	Iron nail head?	84
1062	Horseshoe fragment, heavily encrusted	84
1063	Clay/glass residue	2
1064	Clay/glass residue	2
1065	Iron nail, heavily encrusted	237/238
1066	Clay/glass residue	237/238
1067	Iron object	72
1068	Iron nail heavily encrusted	2
1069	Clay/glass residue	211
1070	Iron nail shank	72
1071	Iron nail shank	72
1072	Iron object heavily encrusted	72
1073	Iron nail shank	2
1074	Iron nail	2
1075	Slag?	2
1076	Slag?	2
1077	Clay pipe stem	2
1078	Nail, heavily encrusted	96
1079	Slag?	137
1080	Iron nail shank	10
1081	Iron nail head	10
1082	Slag?	10
1083	Iron object	72
1084	Iron object	72
1085	Iron nail	72
1086	Slag?	72
1087	Iron nail shank	72
1088	Iron nail shank	72
1089	Iron object	94
1090	Glass fragment	2
1091	Whetstone	10
1092	Iron nail shank	84
1093	Slag?	84
1094	Iron nail shank?	150
1095	Flint scraper?	77
1096	Glass vessel fragment	10
1097	Iron nail shank	114
1098	Glass fragment	14
1099	Residue (cinder), 4g weight	137

RF No.	Description	Context No.
1100	Iron nail shank	77
1101	Iron object	77
1102	Iron latch lifter/nail shank	2
1103	Residue, 8g weight	2
1104	Semi-tubular cu. alloy object	2
1105	Iron object	70
1106	Nail shank. heavily encrusted	16
1107	Fragment of pale blue translucent glass	16
1108	Tap slag, 185g weight	1
1109	Iron object	199
1110	Iron nail	2
1111	Bolt?, square sectioned, heavily encrusted	1
1112	Iron object	1
1113	Assemblage of modern nails	75
1114	Iron buckle, heavily encrusted	1
1115	Cylindrical iron object - ?battery/syphon	1
1116	Slate marker	1
1117	Flint flake	1
1118	Glass marble	1
1119	Assemblage of iron objects from post-med drain fill	12
1120	Oyster shell displaying bored hole	137
1121	Iron nail, heavily encrusted	150
1122	Vessel glass, neck fragment	5

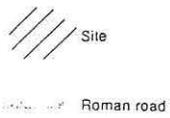
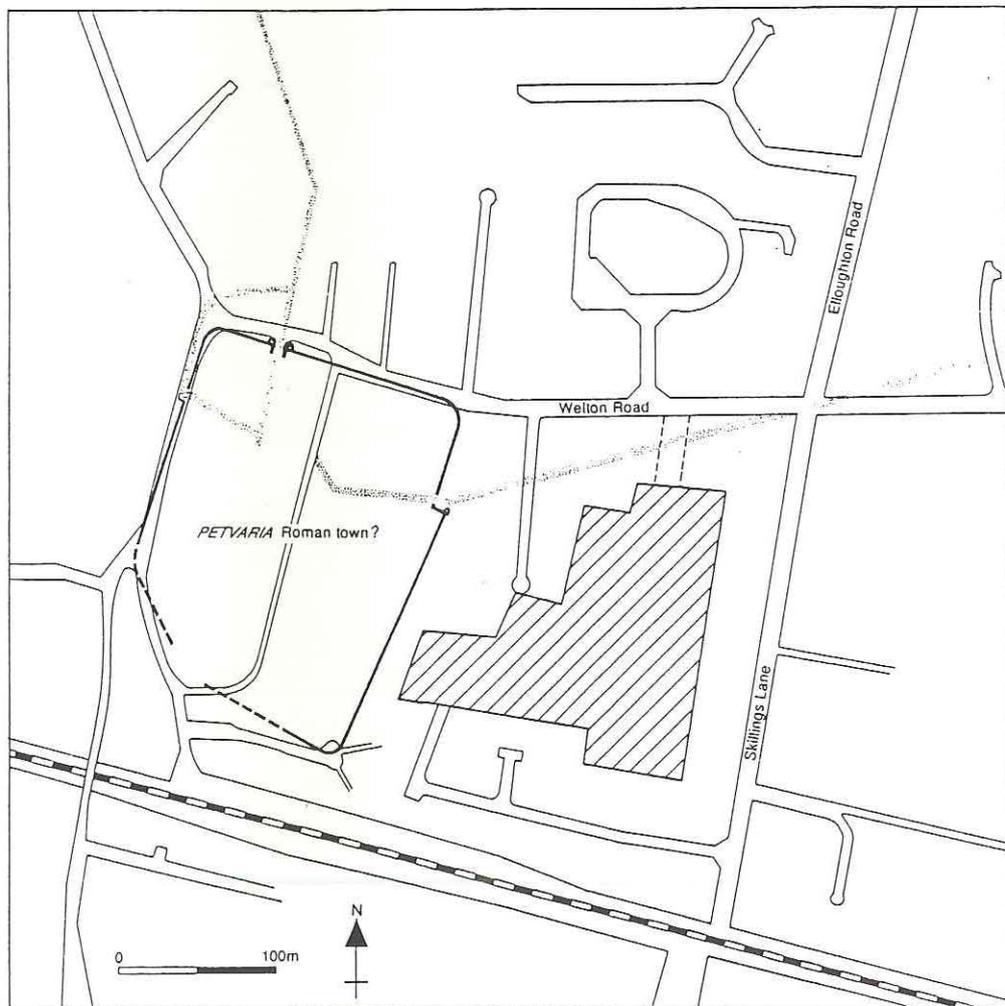
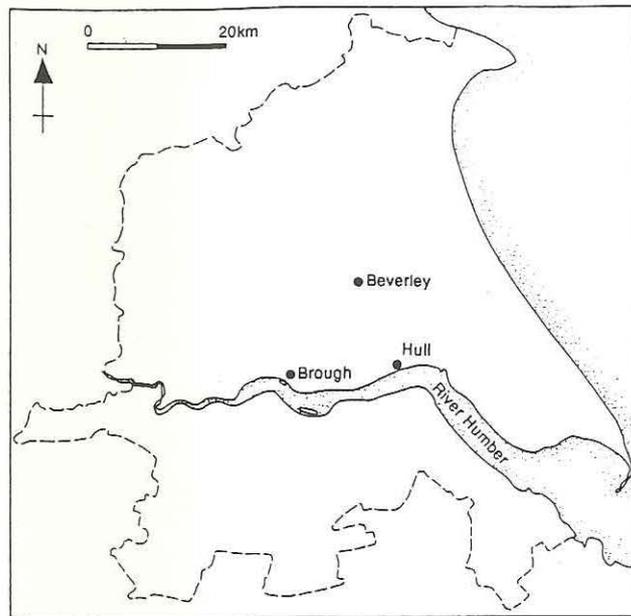


Fig 1: Location plans. The site of the proposed development is shown in relation to the layout of modern Brough and known or conjectured features of Roman date. Dashed lines at the north end of the site mark the route of the access road as first proposed.

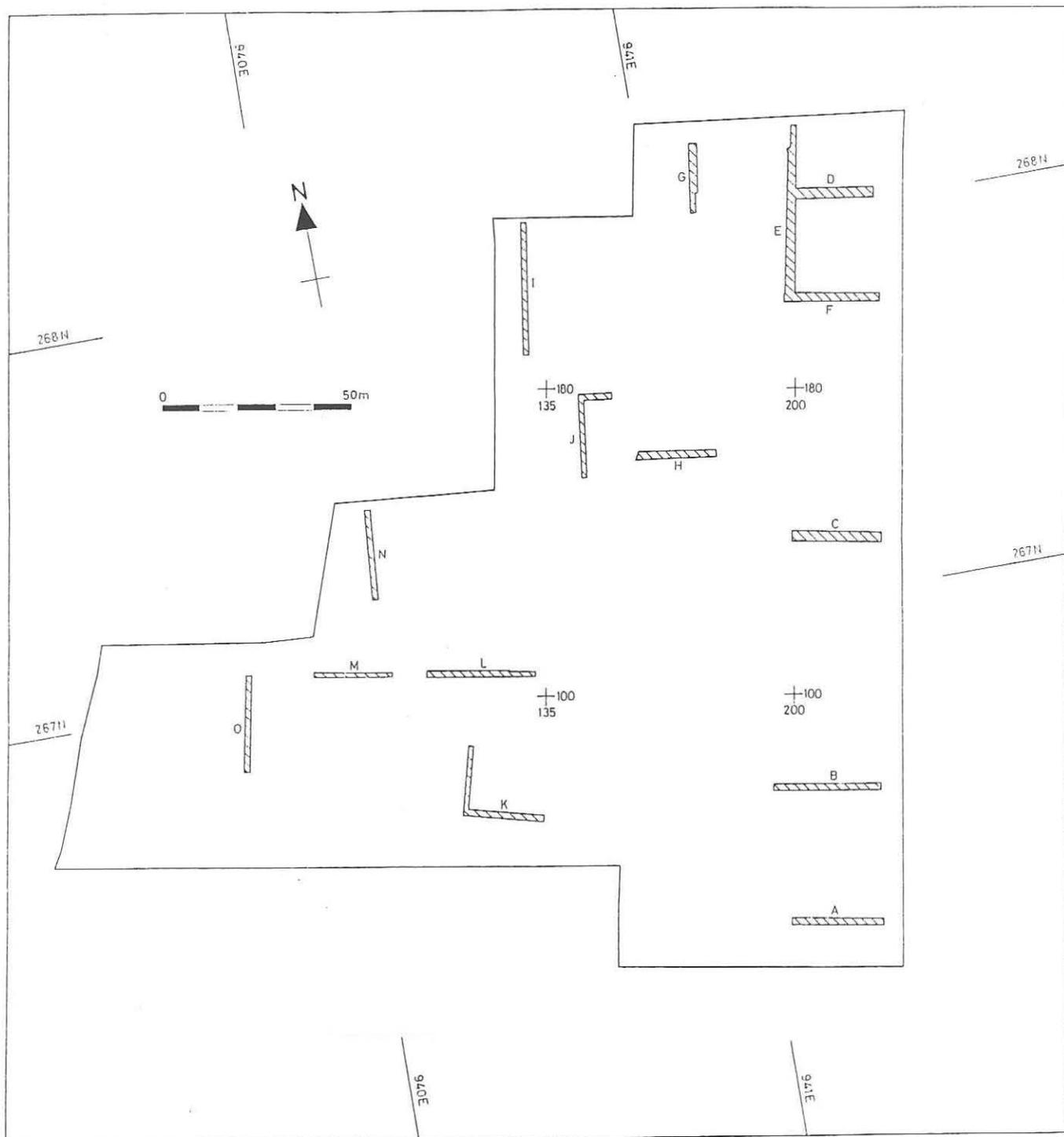


Fig 2: The area of the proposed development, showing positions of excavation trenches. The excavation survey grid and Ordnance Survey National Grid coordinates are indicated.

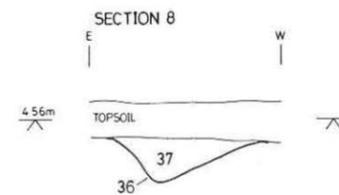
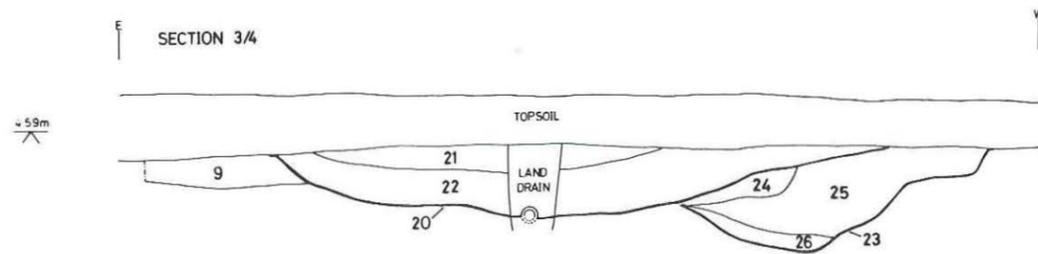
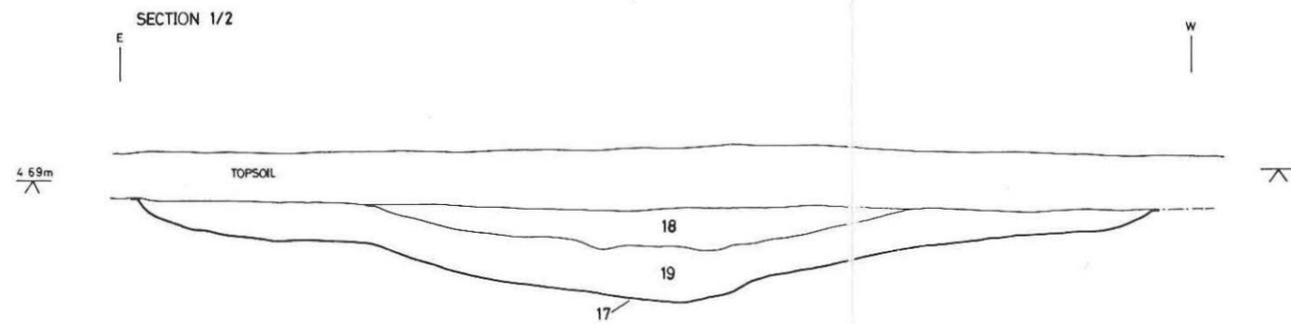
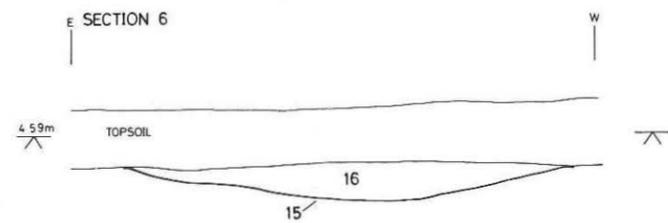
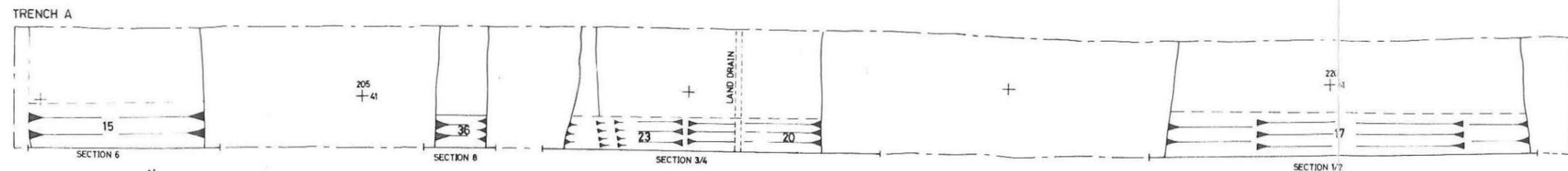


Fig 3: Trench A The excavated features in plan and section.

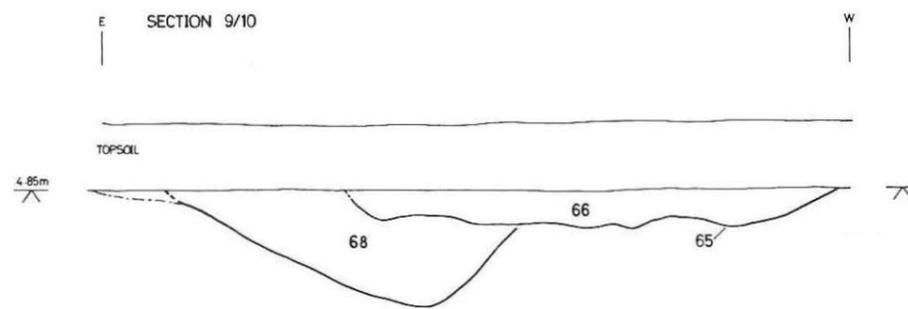
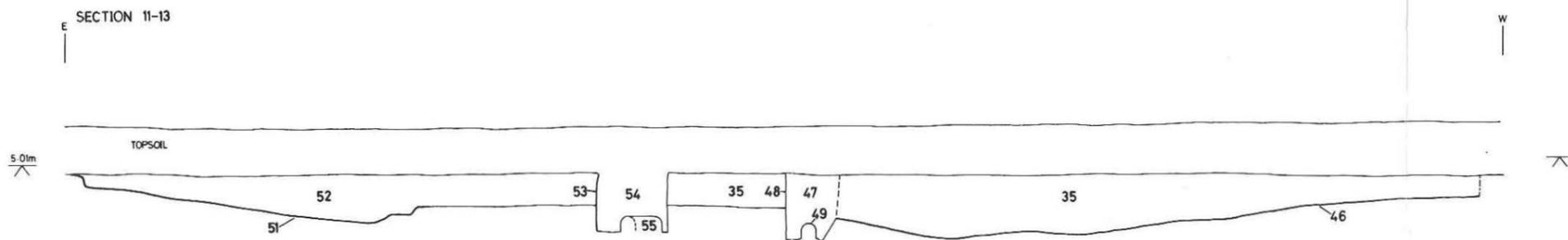
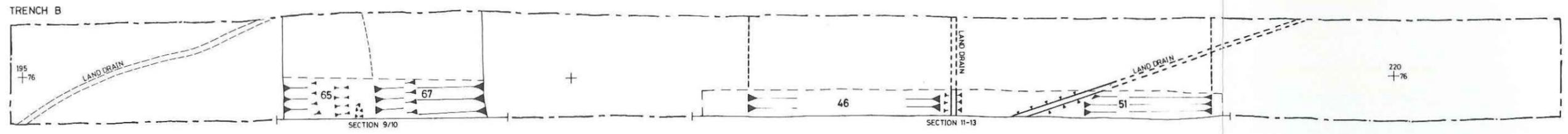


Fig 4: Trench B The excavated features in plan and section.

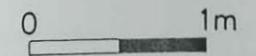
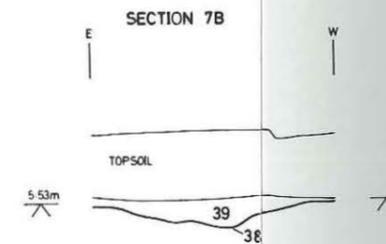
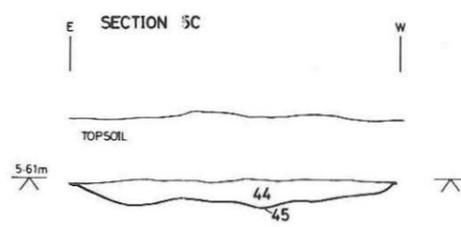
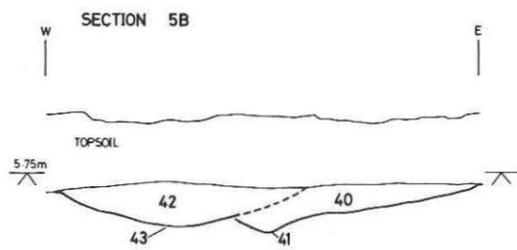
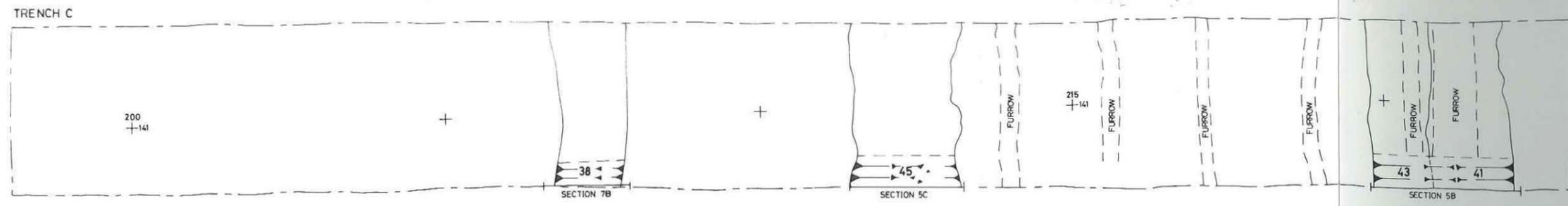


Fig 5: Trench C The excavated features in plan and section.

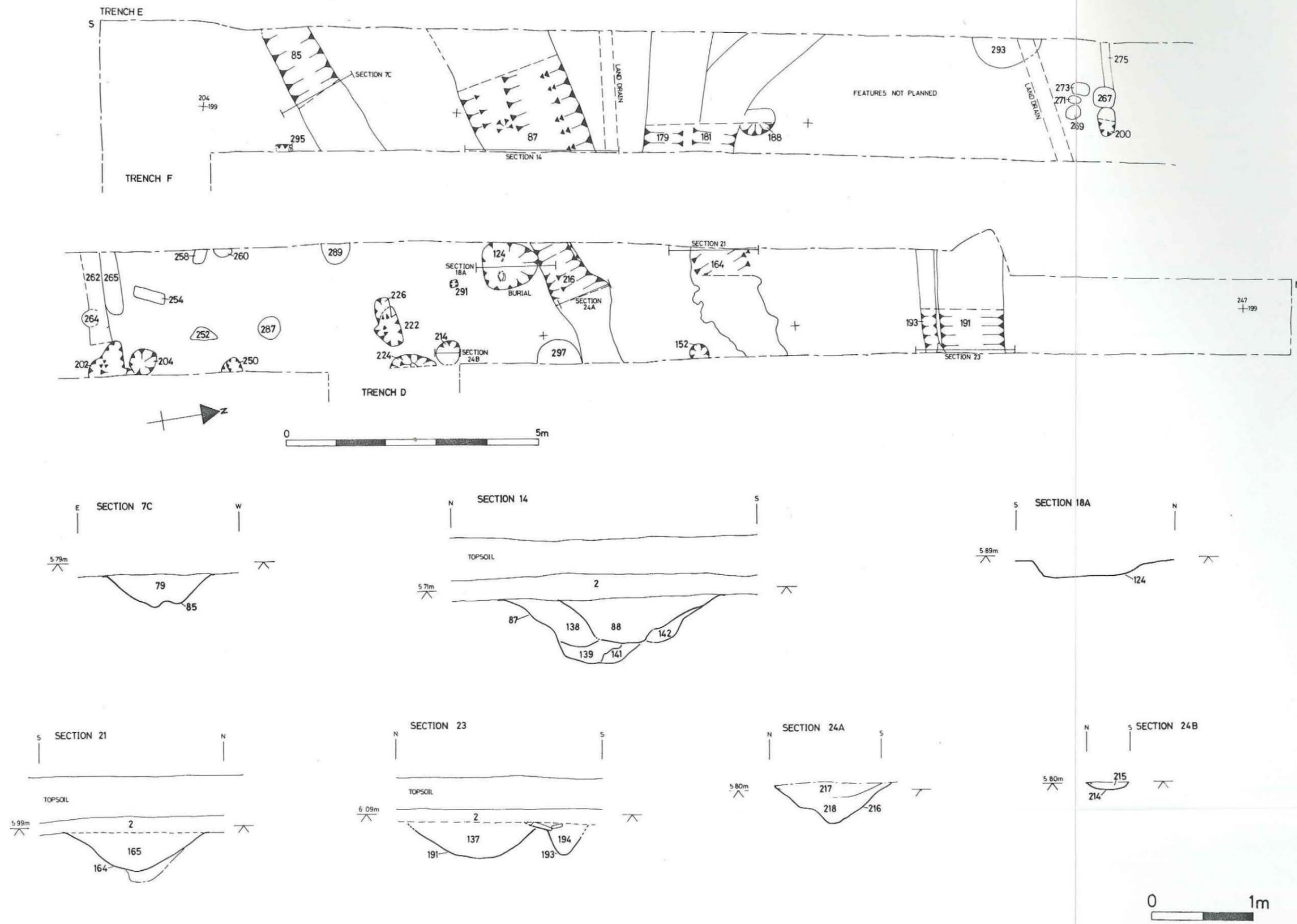


Fig 6: Trench E The excavated and unexcavated features in plan, with sections as indicated.

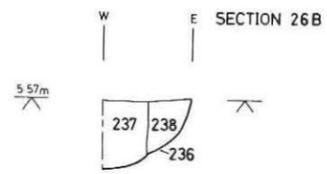
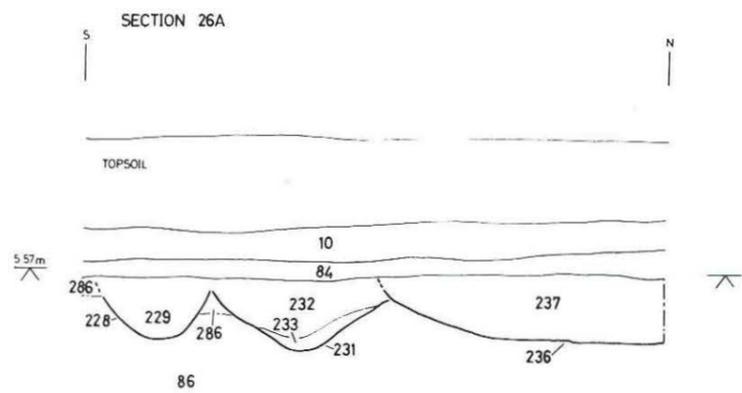
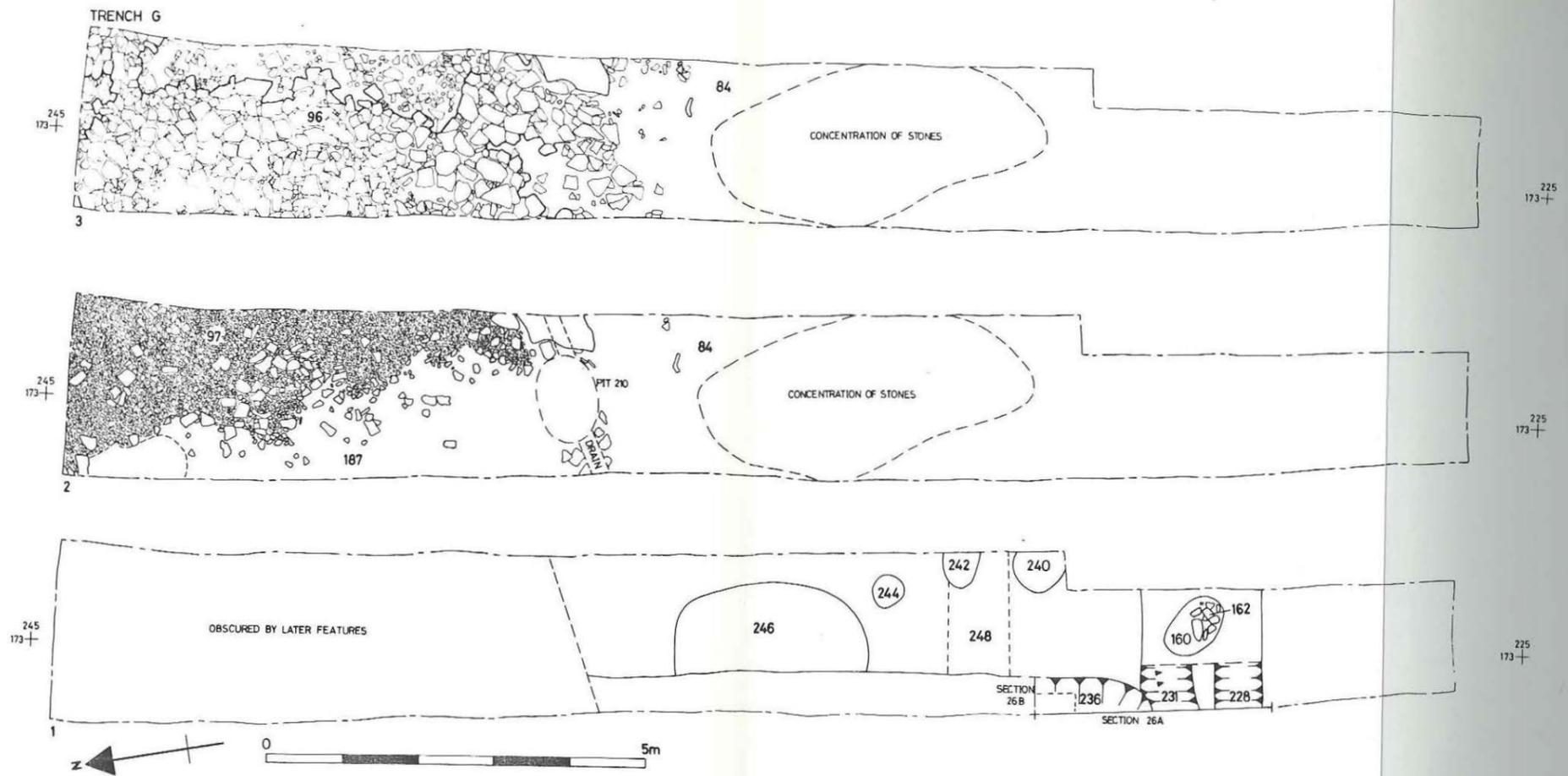


Fig 7: Trench G The three main phases of features, Plans 1-3, as discussed in the text. Sections as indicated.

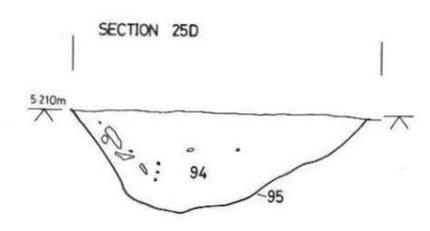
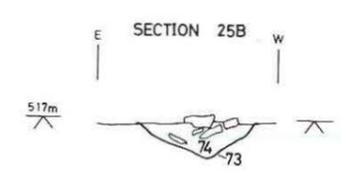
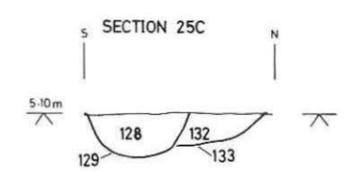
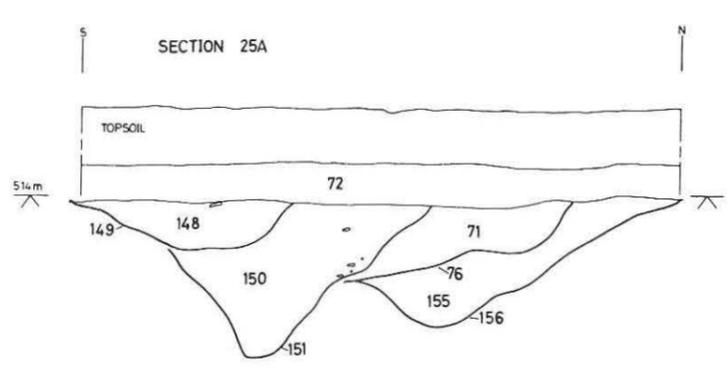
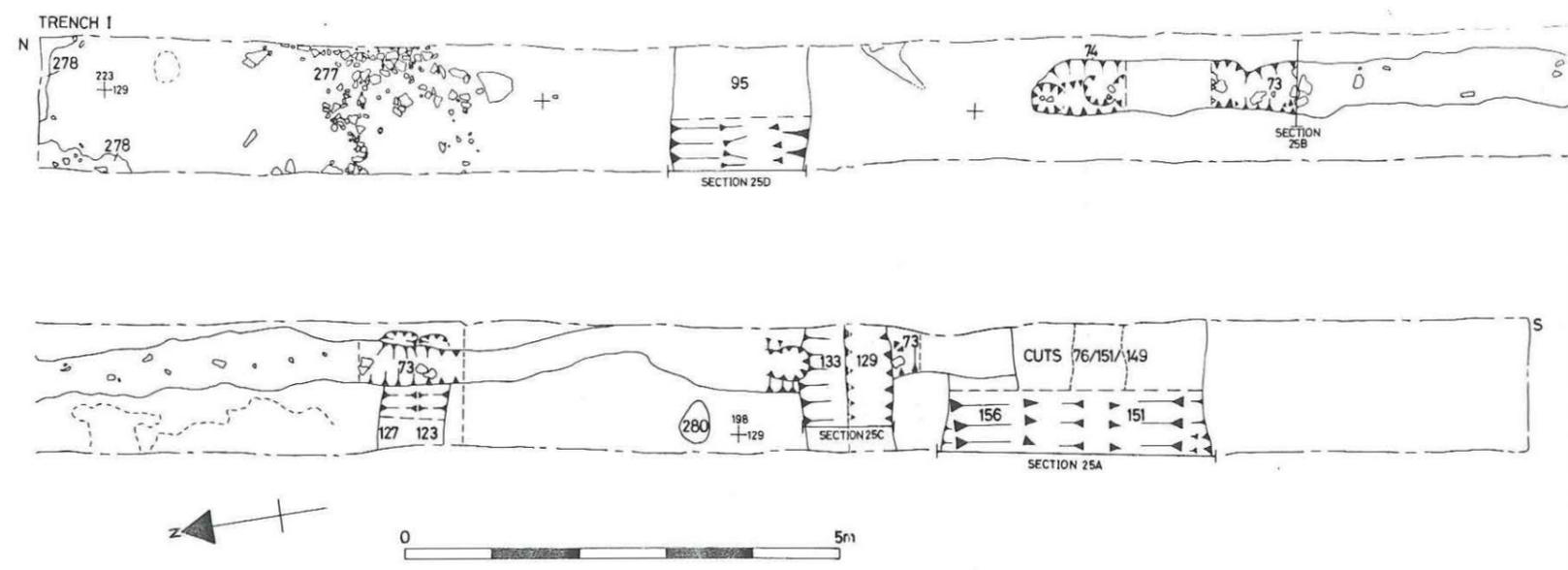


Fig 8: Trench I Excavated features, with sections as indicated.

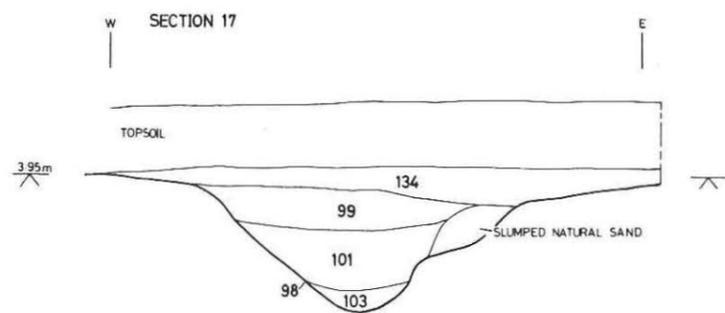
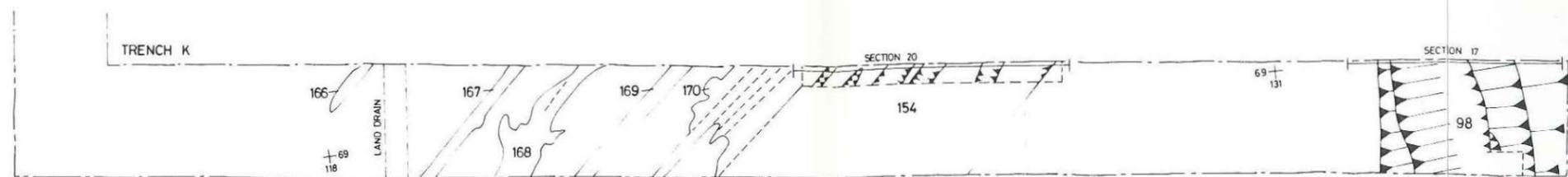


Fig 9: Trench K Plan of features, with sections as indicated.

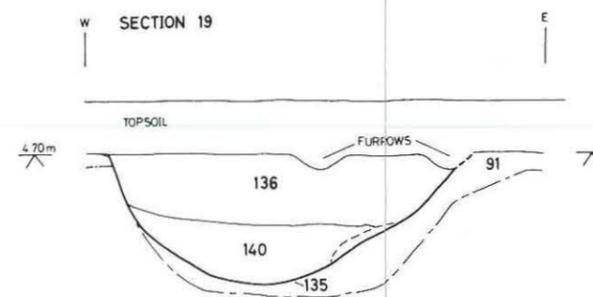
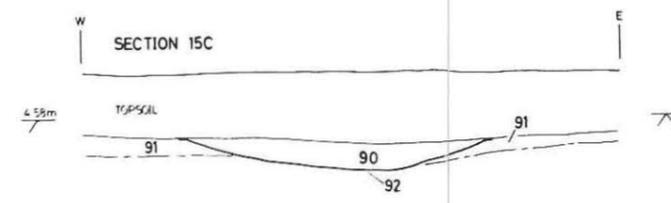
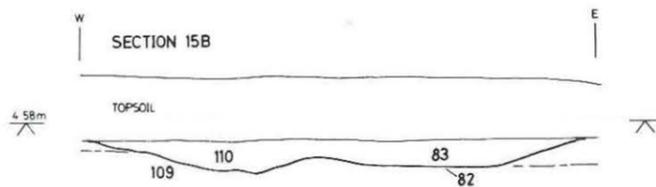
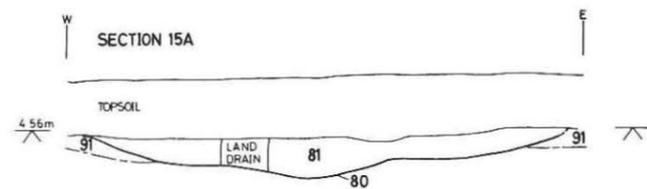
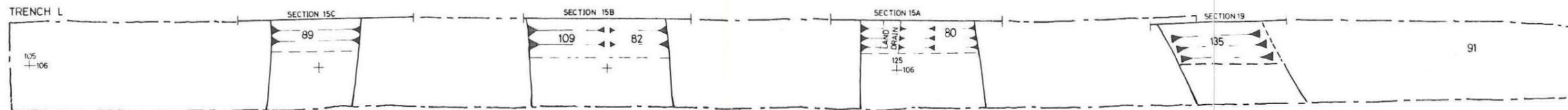


Fig 10: Trench L Excavated features, in plan and section.

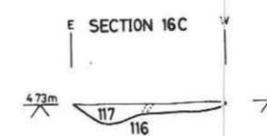
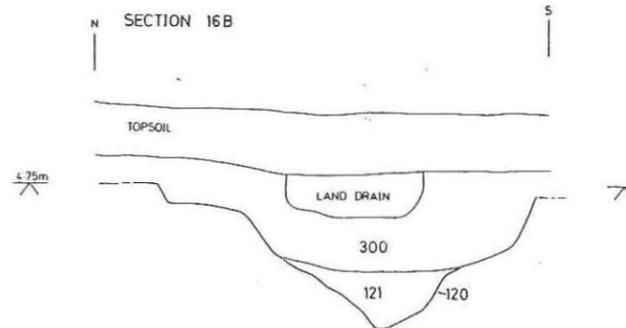
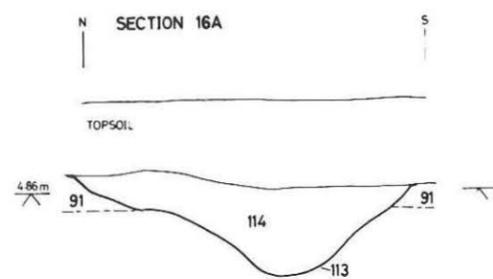
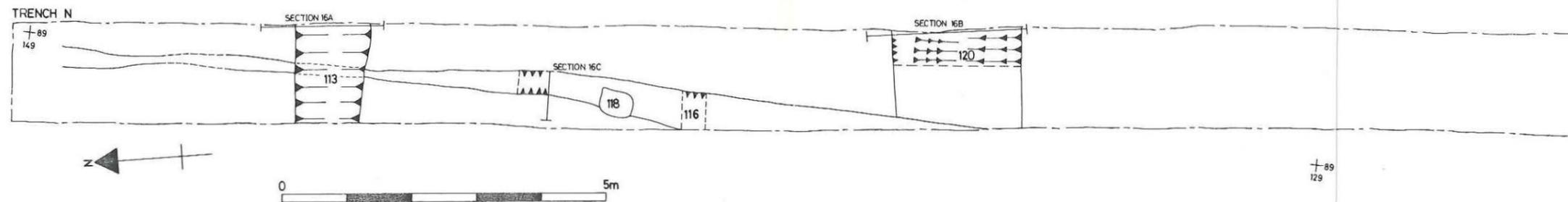


Fig 11: Trench N Excavated features, with sections as indicated.

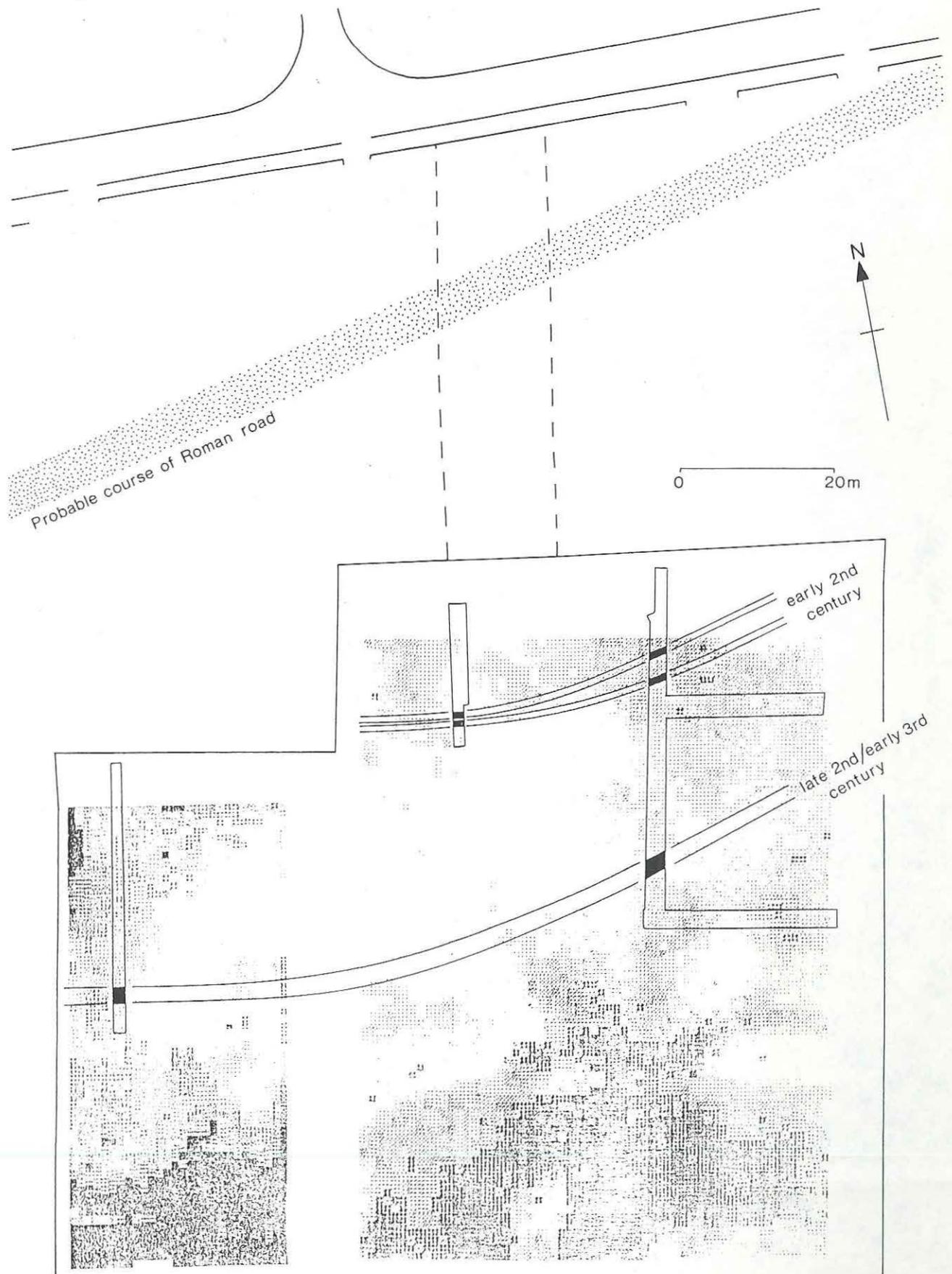


Fig 12: Projected lines of the rear boundary ditches, with excavated portions shown in black, superimposed on printouts of the resistivity survey. Note that the Roman road to the north of the site has been shown running straight, on the reasonable assumption that it had continued on the same alignment as the length seen on aerial photographs further to the east, and had run directly from there to the east gate of the walled fort or town; the curve of the ditches may, however, imply that the road did not run as straight as illustrated. The dashed lines indicate the access route for the proposed development.

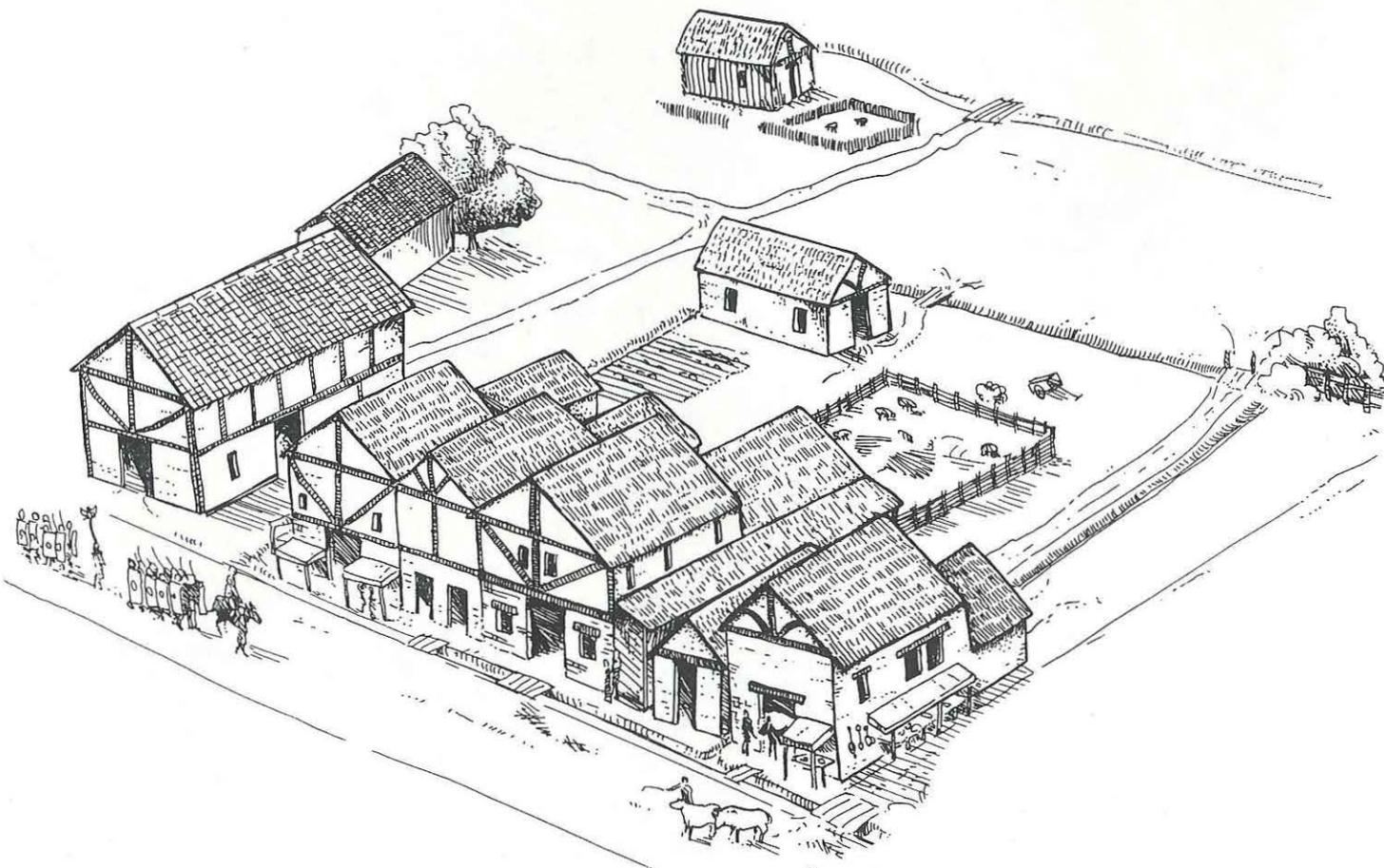


Fig 13: Artists impression of a similar type of roadside settlement, based on evidence from such settlements as the small Roman town at Hibaldstow, part of which was excavated by the Humberside Archaeology Unit in 1988.

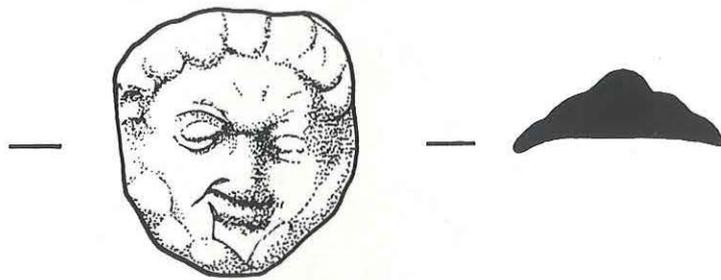


Fig 14: *Objects of Fired Clay* The applique face mask. Scale 2:1.



Plate 1: *Trench B* Ditch 67, viewed from the north-east. Half-metre scale.



Plate 2: *Trench E* Burial SF1022, within grave 124, from the north. Several of the coffin nails remain, points uppermost. 0.20m scale.

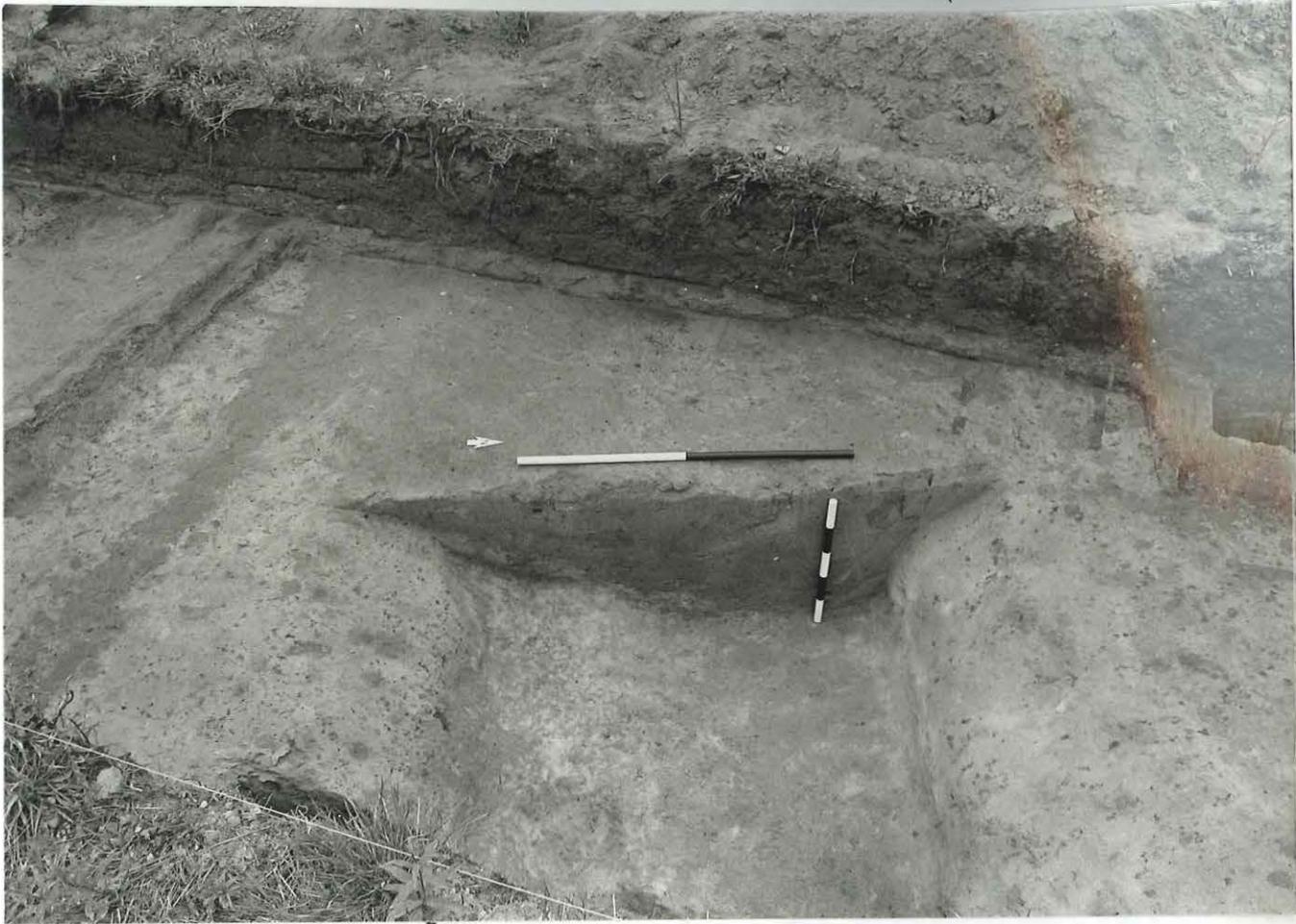


Plate 3: *Trench E* Ditch 87, viewed from the east. One-metre and half-metre scales.

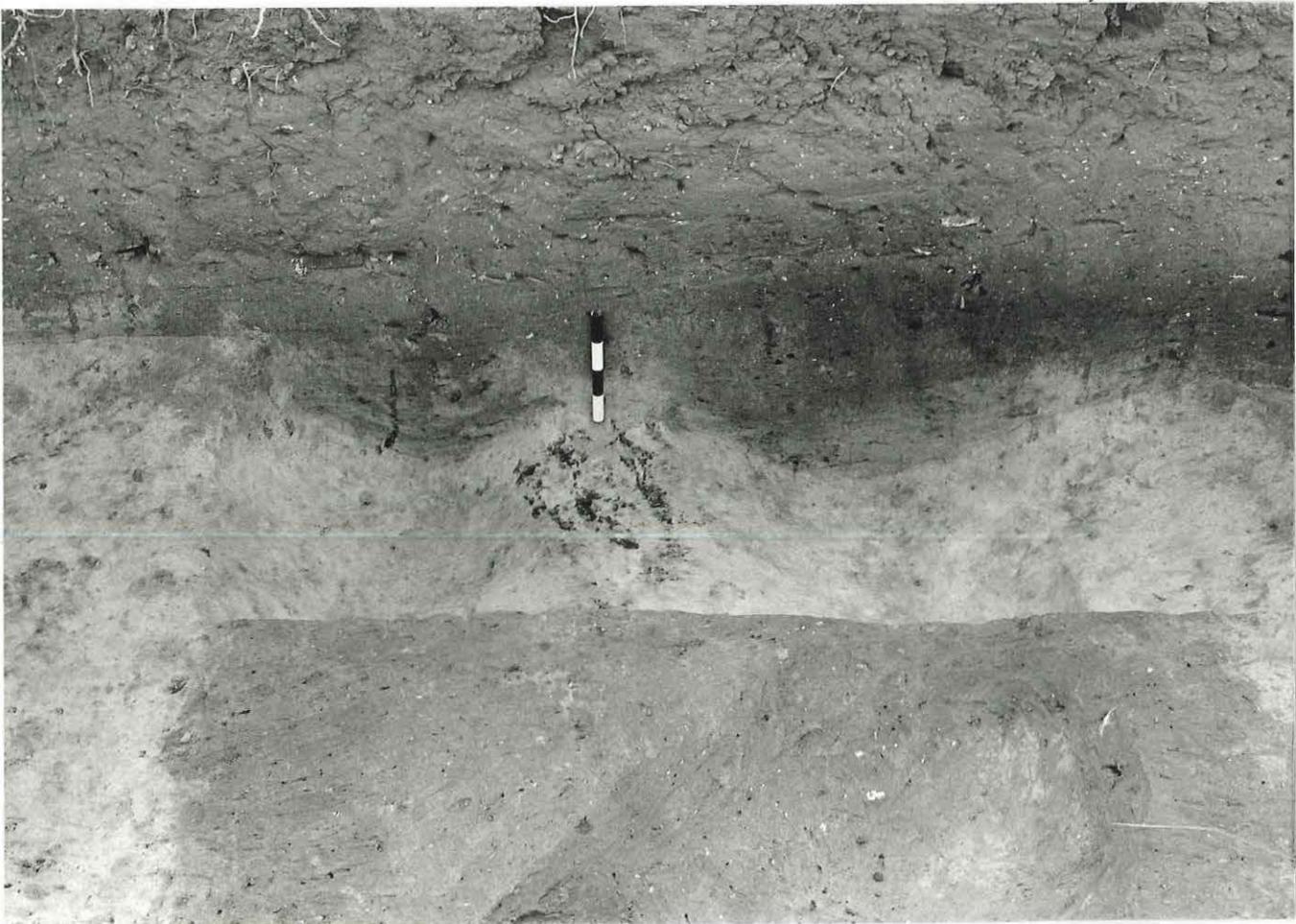


Plate 4: *Trench G* Parallel ditches 228 and 231, viewed from the east. 0.20m scale.

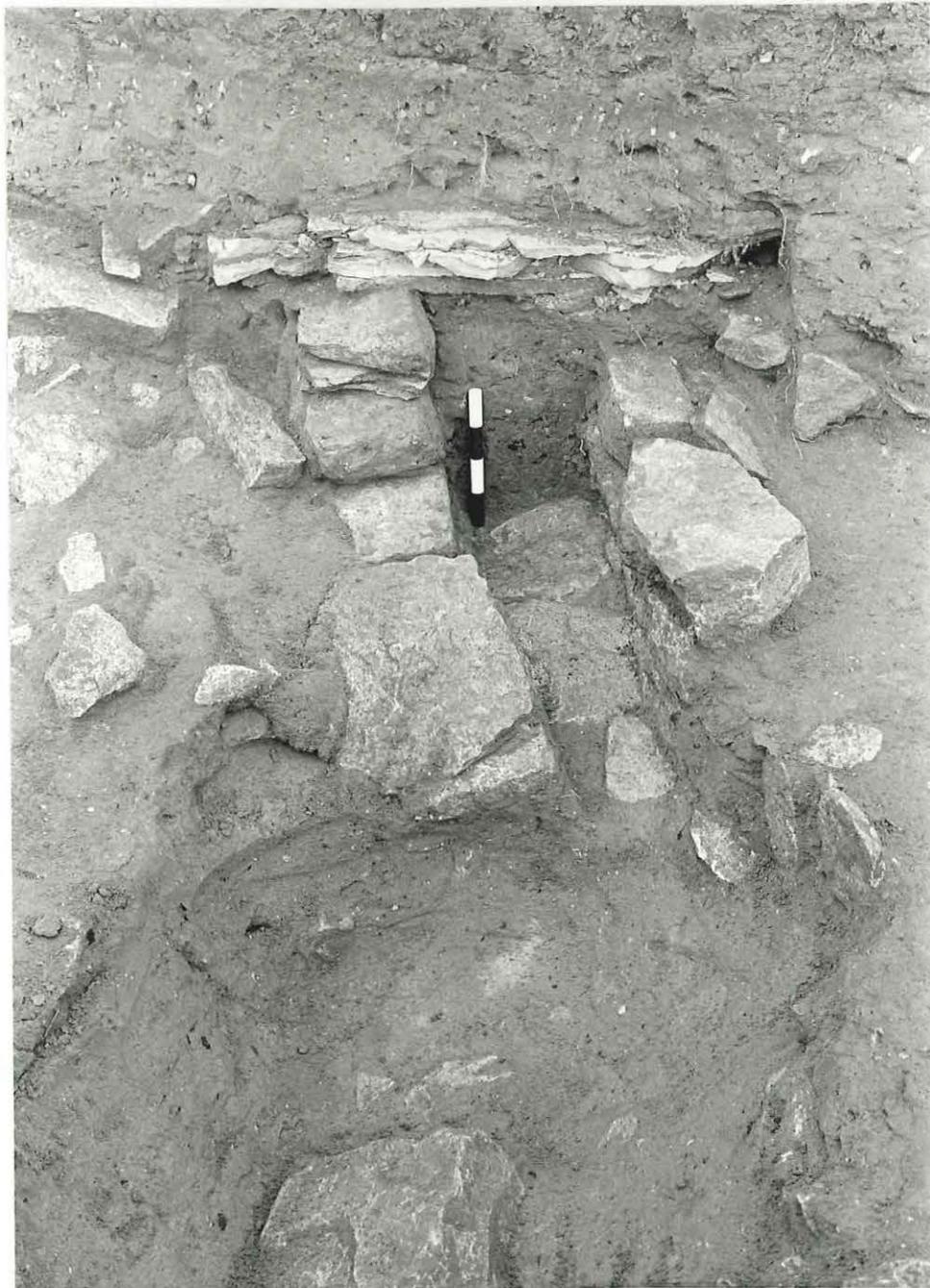


Plate 5: *Trench G*. Stone-built drain 176, cut by later pit 210 in foreground. The capping stone can be seen in section. 0.20m scale.

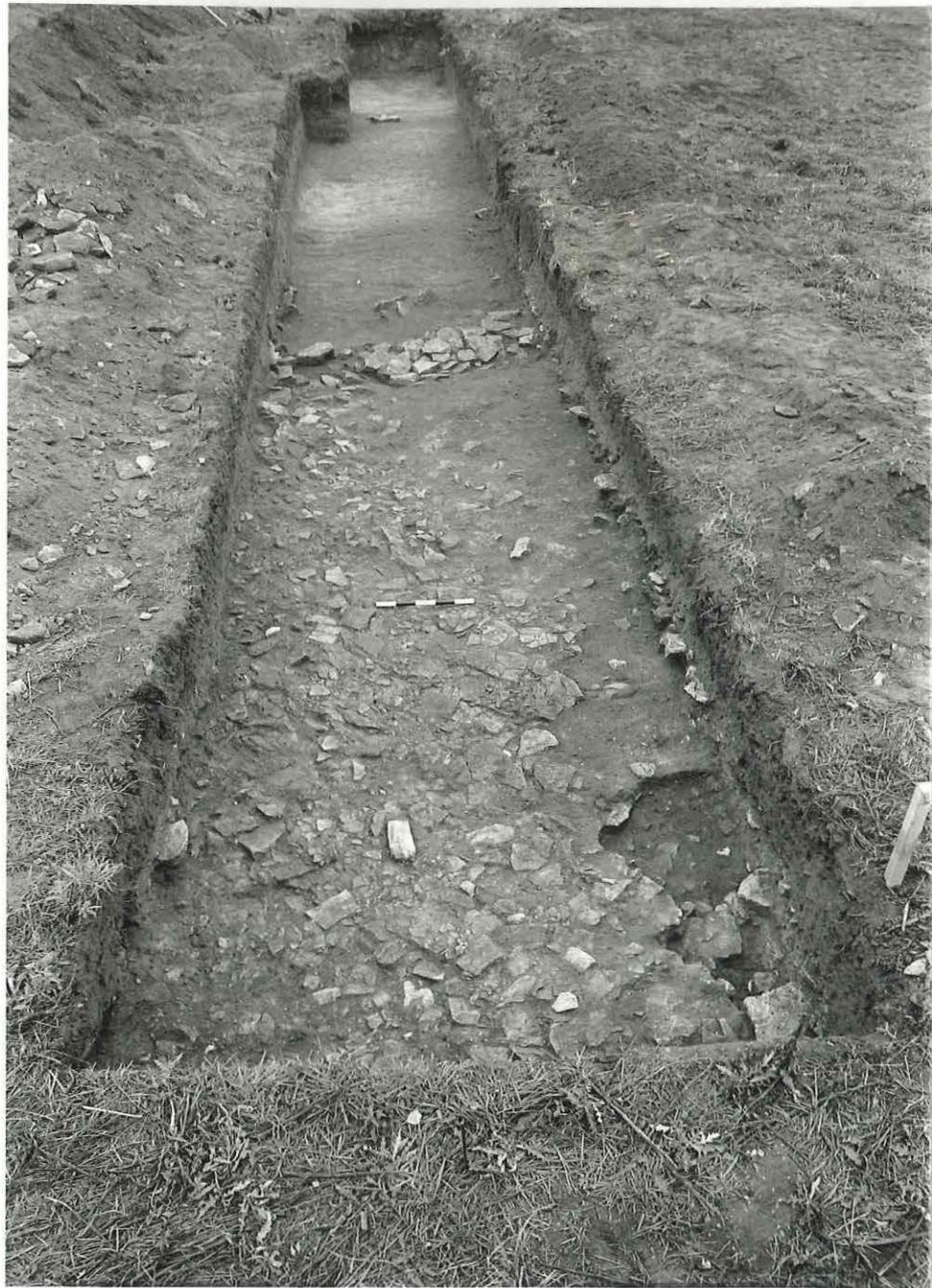


Plate 6: *Trench G* Stone surface 97, with drain 176 beyond. Viewed from the north. Half-metre scale.



Plate 7: *Trench G* Rubble layer 175 sealing pit 210 and parts of drain 176.
Half-metre scale.



Plate 8: *Trench G* Rubble layer 96 being revealed during excavation, layer 10 being removed. Looking south.



Plate 9: *Trench I* Foundation 73 seen from the north, running much of the length of the excavation. Its rounded northern terminal is in the foreground, and stone packing can be seen where short lengths of the fill have been removed. Ditches 76, 156 *et al* cross the trench to the rear. Half-metre scales.

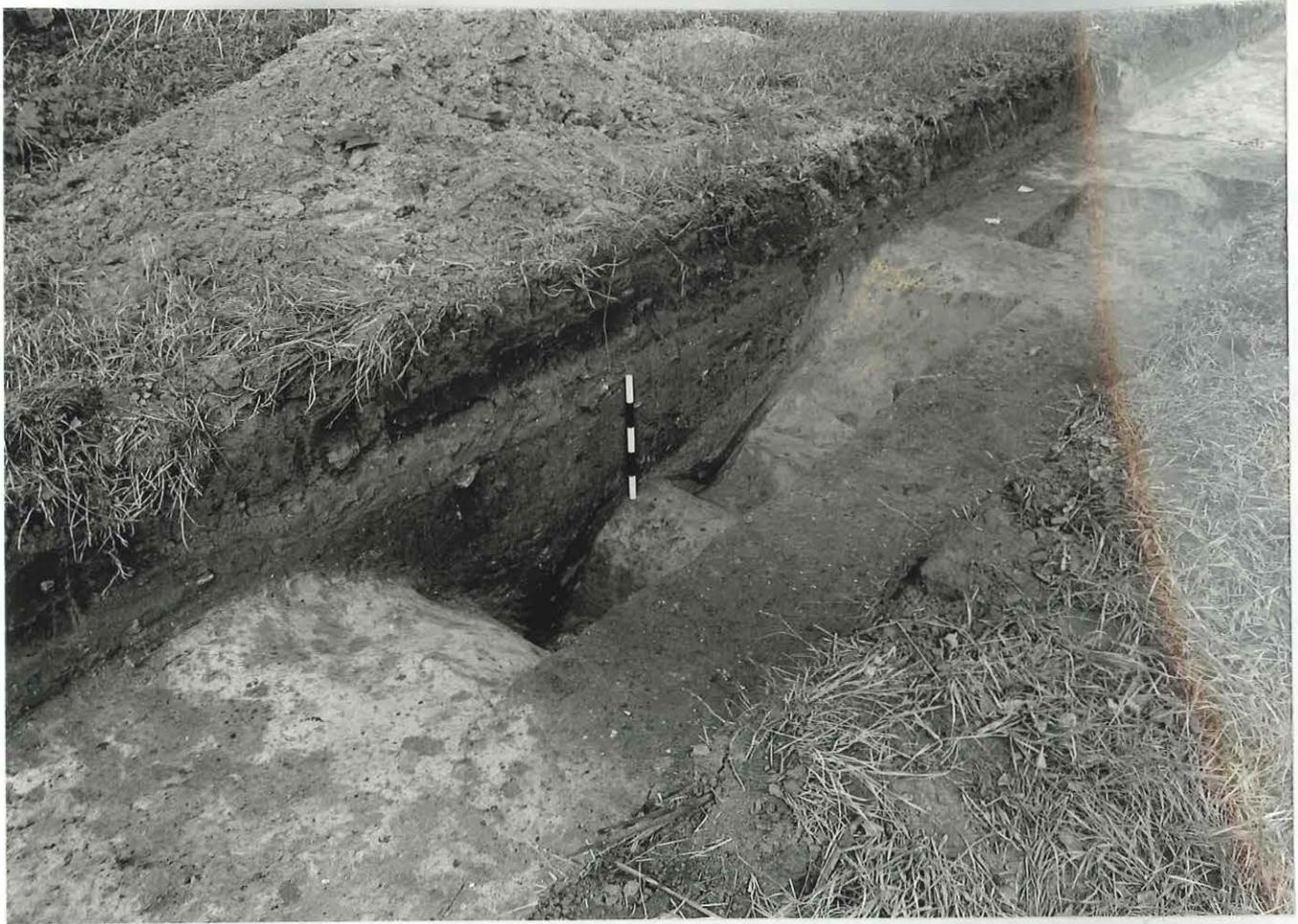


Plate 10: *Trench I* Ditches 76, 148, 151 and 156 seen in section and partially in plan. Features 129 and 133 can be seen to the right. Viewed from the south-east. Half-metre scale.

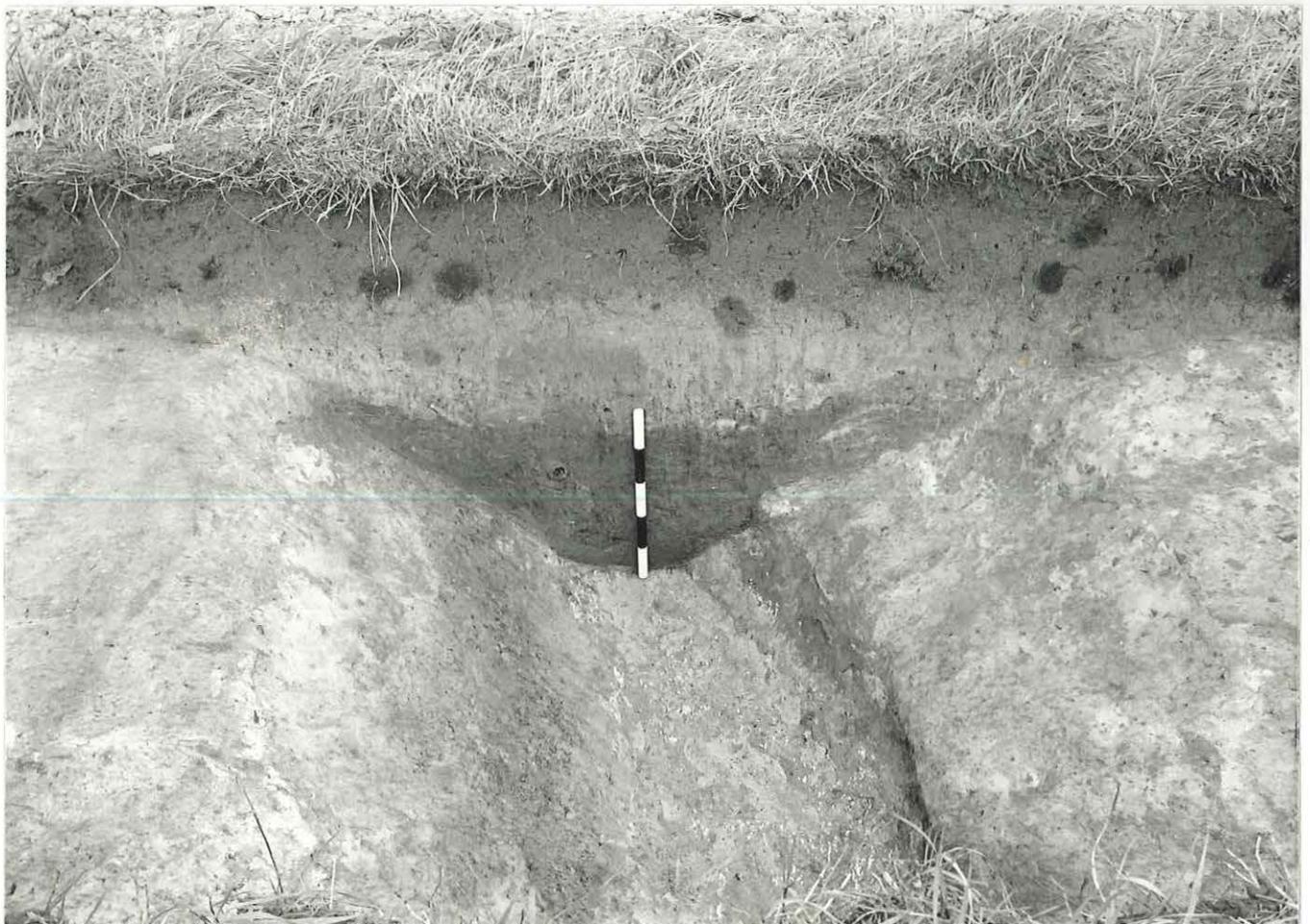


Plate 11: *Trench K* Ditch 98 seen from the south. Half-metre scale.



Plate 12: *Trench K* Plough marks 154 *et al* running NE-SW across the excavation trench. Viewed from the west. Half-metre scale.