Northern Archaeological Associates

AN ARCHAEOLOGICAL EVALUATION

OF AN IRON AGE AND LATER ROMANO- BRITISH SETTLEMENT

WITH ASSOCIATED FIELD SYSTEMS NEAR FLAXBY,

NORTH YORKSHIRE

FOR

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ARCHAEOLOGICAL EVALUATION OF AN IRON AGE AND LATER ROMANO- BRITISH SETTLEMENT WITH ASSOCIATED FIELD SYSTEMS NEAR FLAXBY, NORTH YORKSHIRE.

Following an initial appraisal which indicated that late Bronze Age/Iron Age remains had been discovered immediately west of the site during sand and gravel extraction in 1956 and 1960, a field evaluation of the site was undertaken A geophysical survey indicated that an extensive system of archaeological anomalies existed within the site Trial excavation has shown that these features relate to an early Iron Age settlement site, dating to the 6th - 7th century BC, a later Romano-British settlemem site and an articulated series of fields and trackways probably relating to both sites The settlement sites are believed to be of significant regional importance because such sites are comparatively rare in the northern Vale of York Regionally very few settlement sites of these periods have been excavated and samples taken show these sites have both good environmental preservation and high potential in terms of the abundance of ecofacts

This report recommends that archaeological features within the areas affected by bunds should be preserved in situ Consideration should also be given to preserving the Iron Age settlement site which lies within the proposed extraction area If this is not possible, both this site and the articulated field system will require excavation in advance of extraction commencmg

1 0 INTRODUCTION

This report contains the results of an archaeological evaluation at a proposed 11 ha 'borrow pit' site (fig 1), east of Ten Low Field near Flaxby (SE 4000 5830) The work was carried out by Northern Archaeological Associates on behalf of Alfred McAlpine/AMEC The 'borrow pit' lies on the south-east side of a ridge running south-west to north-east and is connected with the improvement of an adjacent section of the A1 between Walshford and Dishforth The evaluation was undertaken following the imposition of an archaeological condition by North Yorkshire County Council on planning permission for the development

An initial desk top study of the area of the proposed 'borrow pit' undertaken in January 1994 (Fraser 1994) revealed that there were no sites recorded within the site itself, but that during previous gravel extraction in Ten Low Field, Late Bronze Age/Early Iron Age remains had been discovered less than 200 m away from the western boundary Although limited in their extent, the remains must once have been associated with a more extensive late Bronze Age/early Iron Age burial or settlement site located on the sand and gravel moraine Part of the higher ground associated with this moraine extended into the site area and it was recommended that field evaluation be undertaken to determine whether further remains associated with these earlier finds were present within the 'borrow pit' site

Although fieldwalking in the northern part of the proposed site revealed no significant

evidence for the presence of archaeological remains, sample geophysical survey on the western side of the site did identify archaeological anomalies Following the positive identification of these features the geophysical survey was extended On the basis of the results of the geophysical survey, further evaluation, comprising the excavation of twenty-five trial trenches covering 0 47ha , was undertaken between 21 March and 19 April 1994

2 0 BACKGROUND

2 1 Topography and geology

The site lies west of the A1 trunk road, outside the new motorway corridor The drift geology of the area is till derived from the Pennine glaciation in the late Pleistocene overlying permian and triassic sandstones The soils of the area belong to the Dunkeswick association (711p) and are typically fine loamy soils over glaciofluvial clayey soils The latter appear to be calcareous in origin and on site tests show a pH measurement between 6 8 and 7 2

The topography of the site comprises higher ground within the north-west area (*c* 55m AOD) sloping gently south-east towards the old A59 York Road (44 32 AOD) The higher ground is part of a morainic ridge running south-west/north-east extending from Ten Low Field towards Mill Hill A substantial area of the ridge in Ten Low Field was removed during sand and gravel extraction in the 1950's and 1960's Although part of the current site area was also included in the 1955 permission, the area was never worked It is not clear how close the final area of extraction came to the western boundary of the proposed 'borrow pit' site

2 2 Archaeological and historical background

By the late Iron Age the lowland area of Yorkshire between the Pennines to the west, the Hambleton Hills and the Wolds to the east is thought to have had a relatively dense distribution of settlement although little is known of its pattern (Haselgrove 1984) Evidence from the few excavated sites and from pollen diagrams suggests that within this area mixed farming predominated Throughout this lowland area, and especially on the Magnesian Limestone, aerial photography has revealed extensive evidence of later Iron Age and Roman native settlement The precise date of the cropmark sites is uncertain but they would seem to conform to later prehistoric and Roman types in that they comprise sub-rectangular or D-shaped enclosures, trackways and field systems (WYAS 1981) Excavation has taken place at three sites to the south of Wetherby, at Ledston, Dalton Parlours and Wattle Syke The enclosures, round houses and storage pits found at all these sites are thought to have been components of extensive agrarian settlements with related field systems Immediately to the south of the Flaxby site, trial excavation of a farmstead site at Bayram Hill, east of Goldsbrough, has revealed an enclosed settlement with evidence of occupation extending from the 1st to the 4th century AD (Fraser and Robinson 1994) To the east, excavation in advance of the Easingwold bypass has revealed several Iron Age round houses and a series of small enclosure features (Whyman 1991) In Cleveland, excavation at a farmstead site at Thorpe Thewles (Heslop 1983) has produced evidence of a

large pre-Roman bank-and-ditched enclosure containing a central round house and nine other small buildings These latter features are thought to have belonged to a period when the site had developed from a enclosed farmstead into an open nucleated settlement

Although no archaeological sites were recorded within the 'borrow pit' site itself, Late Bronze Age/Early Iron Age remains were discovered less than 200 m to the west In 1956, during sand and gravel extraction in Ten Low Field by Farnley Sand and Gravel Co , the parts of two 'urns' were found near to Ten Low Hill A further 'urn' was discovered further to the east during extraction in 1960 (SE 3972 5830) and a small cursory excavation of the immediate area of the discovery was undertaken by Addyman, Coles and Hartley The excavation revealed a large circular depression, over 6 ft 6 ins in diameter It was dug into the sand, roughly lined with morainic stones and cobbles The lower fills were dirty red-yellow sand and the upper fills grey-brown sand A possible post-hole was cut from the upper fills through to the lower fills The finds were limited to the upper sand fills and consisted of a few animal bones and sherds of a late Bronze Age/early Iron Age 'Flat-rimmed ware' vessel The function of the depression was not clear There was no evidence to confirm it as a barrow and the excavators suggested, in the absence of supporting evidence, that the structure and finds could be as much part of a settlement as part of a burial site Elsewhere in Britain, comparable pottery has been recovered from both settlement and burial contexts

The only reference to burial sites in this area is a vague 19th century documentary reference to two Bronze Age barrows between Coneythorpe and Flaxby The identification and location of these sites, however, have never been confirmed The Ordnance Survey Field Investigator could find no trace of barrows in 1963 and suggested that one of these barrows may have been a reference to the knoll called Ten Low Hill (SE 3950 5633) shown on the O S 1st Ed 6 inch map (1853) in the north-west corner of Ten Low Field

No aerial photographic evidence was found during the assessment for either burial or settlement within the vicinity of the site A number of 'cropmark sites' close to the site were plotted on the aerial photograph transcriptions held by the County Sites and Monuments Record However, with the exception of Site 6252 (SE 4020 5810), none could be substantiated Excavation of Site 6252 was undertaken by Northern Archaeological Associates in August 1993 in advance of gravel extraction in this area (Fraser and Speed 1994) The results produced no evidence of domestic occupation Most of the features appeared to be agricultural in origin but could not be dated There are concentrations of cropmark sites of unknown date rn the vicinity of Hay-a-Park, Goldsborough and Coneythorpe, however, none of these appear to extend into, or towards, the area of the proposed borrow pit

With the exception of the excavated remains, the only evidence to suggest the existence of Iron Age settlement within the area of Ten Low Hill, was the report of the discovery of the upper stone of a beehive quern found during gravel quarrying in 1960, north-east of Spring Bank Farm (SE 3977 5850) Quern stones were used for grinding corn and since their size and weight frequently mean they tend not to move far from their original place of abandonment, their discovery can often be indicative of a settlement site nearby During the site visit on 25 January 1994, the remains of a saddle quern were noted in the western

hedge boundary of the southern field approximately half way down its length

3 0 THE GEOPHYSICAL SURVEY

A precautionary geophysical survey of a 1 ha strip along the western site boundary with Ten Low Field was recommended initially because of Late Bronze Age/Iron Age finds made during gravel extraction to the west The survey identified a number of archaeological features and as a result it was subsequently extended to 8 ha in order to map the full extent of the archaeology, particularly within the area identified for extraction The gradiometer survey was carried out by Geophysical Surveys of Bradford and the results are summarised here, although full details can be found in their report (GSB 94/29)

The survey identified a complex of ditches, pits, hearths and possible trackways associated with an extensive field system and possible settlement, overlain in part by the remains of later ridge and furrow cultivation (fig 2) The results suggested that in general, habitation type features were concentrated towards the north and west on higher ground, and that the associated field systems were located to the south and east on the lower slopes A concentration of pit like anomalies were also identified in the centre of the field and a second concentration was noted to the south-east of a waterlogged area The magnetic anomalies identified m the survey were in places poorly defined, partly because some features were deeply buried or only gave weak magnetic enhancement Plough damage does not appear to have been a factor

4 0 FIELDWALKING SURVEY

An area of approximately 2 5ha in the field immediately to the south of Mill Hill was subject to a fieldwalking survey The area was divided into 10m squares and each square was examined for 5 minutes All surface finds identified were collected and bagged, each square being given a unique code number Ground conditions were reasonably good, a young cereal crop had germinated, but surface visibility was not significantly impaired The ground surface was quite weathered, with the exception of a small number of areas which had been disturbed by reinstatement following recent test pitting

The survey results were, however, inconclusive A total of 132 sherds of medieval pottery were recovered which appeared to be associated with a typical manuring pattern Only 10 flint flakes and one possible Roman pottery sherd were also found and the random distribution of these finds across the survey area was not significant

5 0 THE EXCAVATION TRENCHES

The evaluation consisted of a series of 25 trial trenches designed a) to determine the degree of survival of features recorded by the geophysical survey, b) to model the nature of archaeological deposits across the site and c) to evaluate whether additional features would be revealed by excavation Dating evidence in the form of pottery and other finds was also

sought from the evaluation

A 360° tracked excavator with a toothless ditching bucket was used to remove the topsoil and most of the colluvium or 'B' horizon (Avery 1980) thus exposing the subsoil unless features were observed at a higher level Where appropriate, this surface was cleaned using both hoes and trowels to reveal the archaeological features Time did not permit investigation of all the features revealed nor was this within the remit of the evaluation

In most of the trenches, the features were sealed by a mixture of colluvial topsoil and ploughdrag This was a mid reddish brown silty sandy loam with occasional small stones and pea grit It was quite distinct from the upper curiently cultivated 'Ap' horizon and would seem to be the result of deep cultivation The date of this cultivation is not certain, but the presence of medieval and post-medieval potsherds within it, and the evidence for rig and furrow cultivation on the lower lying flat ground in the field may indicate several centuries of deep cultivation This, combined with fairly large-scale downslope erosion of soil into the natural hollows and along the base of the east side of the morainic ridge, has led to archaeological deposits of probable Roman or earlier date being buried fairly rapidly with little disturbance Depths of 'colluvium' ranging from 0 4 - 0 6m were encountered in many trenches and the colluvium was 0 8 - 1 Im deep at certain locations, notably in parts of trenches 1, 3, 8, 20 and 22 with coriespondingly increased levels of preservation and hence lower levels of disturbance to archaeological deposits and features In several trenches, archaeological deposits and features were evident at quite high levels within this colluvial topsoil and it is possible that some of the lower levels of this relic soil may predate Roman features

5 1 Trench **1** (**Fig** 4)

This trench, which was 26m long by 4m wide, ran downslope on a north to south orientation from near the highest point of the morainic ridge at the north west corner of O S field 0037 The trench was positioned to test two curvilinear anomalies (feature (A) on **Fig** 4) which had been interpreted as ditches, a large vaguely circular anomaly (B) and to test the possibility that occupation areas may have been sited on south east facing slopes in the lee of the prevailing wind

The modern topsoil or "Ap" horizon (100) was of fairly consistent depth along the trench At the north end of the trench, this soil directly overlay the subsoil, but from ditch (105) southwards, a deep deposit of colluvial material underlay the modern topsoil This material, which has probably derived from old topsoil would seem to have been deposited by downslope erosion and ploughdrag It has buried archaeological features to a depth of 1 2m at the south end of the trench, leading to a high level of preservation

Three slightly differing zones or phases could be seen within the colluvial material The uppermost 20cms of the material (101) was less stony than the main concentration of the colluvial drift (108) which overlay another less stony zone (109) The latter overlay a buried 'A' horizon (102)

Some 9m from the north end of the trench, a ditch (105) c 2 4m wide ran roughly east to

west across the trench This feature equates to the northernmost of the two parallel curvilinear anomalies (A) The other anomaly was not found A Im wide section was placed across this ditch against the eastern trench edge The feature was 1 35m deep with a fairly steeply sloping sides and a fairly narrow but flat base The upper fill (104) was a mid reddish brown silty sand loam which had silted into the feature naturally and was apparently mainly derived from an old topsoil similar in nature to (101) The primary fill (107) was also the result of natural silting up, based mainly on washed in 'B' horizon and subsoil

Ditch (105) produced no dating evidence It would appear to underlie the upper part of the colluvial material (101), but was cut through the lower part of this material (108) and (109) If this observation is correct, the two curvilinear anomalies (A), of which ditch (105) is a part, are more recent than the burial of (102)

A band of 'B' horizon survived as a berm immediately south of ditch (105), separating it from buried topsoil (102) This may have been protected below a bank or hedgerow, i e the ditch serves to form a lynchett rather like the modern hedgerow

Below the lower colluvial material (109) lay a buried "A" horizon (102) whose state of preservation increased towards the south as the depth of the overlying colluvium increased There appears to be very little mixing or disturbance of the colluvial material into the top of this soil, i e it has not been ploughed in This buried topsoil had developed over a cobbled surface (103) Two sherds of Roman pottery dating from the late 3rd century A D and bone were recovered from immediately on top of this surface A piece of pottery which has been provisionally identified as medieval was found near the top of soil (102) This may indicate that the layer has a long flornit as the topsoil, whilst the lack of disturbance to cobbled surface (103) would seem to indicate that soil (102) had not been deeply ploughed or cultivated

A 'metalled' or hardcored surface (103) lay across the trench east to west at the south end This was examined in a section c 2 m wide and found to overlie an earlier, more regularly laid, cobbled surface (111) This apparently overlay more colluvial material (112) This layer was not excavated, so it is not known whether this is the same as layer (106)

In the central area of the trench, a buried 'A' and 'B' horizon (106) was found but not extensively investigated as it extended under the cobbled surface to the south A small box section was dug into this material at a position where there appeared to be no other features The layer was not bottomed, but was at least 0 5m deep

A hearth or pit (114) cut layer (106) near the centre of the trench The edge of the cut had been fired red on part of its north east side (115) and the feature was filled with a deposit of slightly burnt soil containing a large quantity of slag (113) This would appear to correspond with anomaly (B) There was no dating evidence, but the feature was sealed under colluvium (109)

5 2 Trench 2 (Fig 4)

This trench, which was c 17 5m long by 11m wide, was located c 40 m to the east of trial trench 1 in order to examine several intersecting anomalies whose layout suggested an entranceway through the parallel curvilinear ditch system (anomaly (A)) investigated in trench 1 and to identify any associated structural features Three ditches were found to cross the trench on a rough east to west orientation, with the northernmost pair meeting at a fairly complex intersection in the north west corner of the trench A Im wide section was placed across each ditch All the ditches were cut largely through colluvial material (207) from a level just below the modern ploughsoil (200), just into the top of the subsoil (211)

The northernmost ditch (202) was linear and may have been a field boundary It was filled with naturally silted colluvial soil material (201), this was virtually indistinguishable from the material it was cut through, except that it had a much higher stone content

To the north of ditch (202) a relic soil profile had survived right up to the north edge of the ditch, which cut it This consisted of a buried 'A' horizon (208) overlying a buried 'B' and 'B/C' horizon (209) Between ditches (202) and (206) part of the 'B' horizon (209) had survived, possibly as the result of lying under a hedgerow or bank This did not survive to the south of ditch (206), where, at the same level, the material would seem to be an old cultivation soil This may indicate that a form of lynchett had formed along the line of either (202) or (206)

Ditch (202) ran more or less parallel to the southernmost ditch in the trench (204) which was filled with silted colluvial soil material (203), this again was virtually indistinguishable from the material it was cut through, except again for its higher stone content

Between ditches (202) and (204) lay another linear ditch (206) This ran at a shallow angle to meet ditch (202) at the west end of the trench and then apparently turned at a rough right angle and headed north It was also filled with insilted colluvial soil material (205), this again was virtually indistinguishable from the material it was cut through, except for its higher stone content A sherd of Roman pottery dating to the later 3rd or 4th century was recovered from this fill

5 3 Trench 3 (Fig 4)

This trench, which was 50m long by 4m wide, was a continuation southwards of trench 1 and was positioned to investigate anomaly (D) and to examine the depth and extent of the colluvium This trench was subsequently extended at a right angle to form a western arm 20m long by 6m wide to examine another set of anomalies (E) and was extended slightly to the east adjacent to what appeared to be a large post hole in feature (310) in order to find any associated features

Anomaly (D) was a large ditch (304) which ran roughly north to south at a slight diagonal down the east side of the trench Two sections were placed across ditch (304) to record it section and to recover pottery and bone The northern most of these (318) revealed a primary fill (319) consisting of a mixture of washed in subsoil with a more organic soil,

whist the upper fill (317) contained more topsoil Several pieces of animal bone and four sherds of Roman pottery were recovered from the upper fill One of the sherds has been dated provisionally to the later 2nd or early 3rd centuries A D A second section (316) was placed across this ditch to the south east of section (318) which revealed a similar sequence

To the south and south west of ditch (304) moderu ploughing had truncated the colluvium down to the subsoil on the slight natural rise Several potential features which were thought to cut the subsoil were investigated, but all appeared to be natural

To the east of ditch (304) was a linear construction slot or trench (310) which was orientated south east to north west and ran roughly parallel with ditch 304 This was c 1 5 m wide on the surface The surface fill (309) was a mid brown silty sand loam Three post pipes were evident in the top fill of the feature One of these (306) was investigated At the top, it had been filled with redeposited clayey natural material (305) which overlay a large stone which may have been an attempt to plug the pipe after the post was removed Below the stone, the pipe was voided to a depth of 1 3m Almost adjacent to this post pipe was another (308) whose surface fill was charcoal flecked soil (307) This post appeared to have rotted *in situ* Another postpipe (337) located c 2 m to the south east of postpipe (308) was square in plan and measured c 0 7m in size

Two other possible postholes were investigated to the north of slot (310) A small feature (321) was half sectioned by the easteru trench edge some 2 5m to the north of (310) It was filled with mid brown silty sand loam (320) and may have been a small posthole, but with no obvious post pipe A similar small feature (312) located c 2 5m to the north of (321) may also have been a posthole It was filled with (311) which was identical in nature to (320) The feature was cut by a shallow linear scoop (314) which was probably part of a rig and furrow system and crossed the trench running south east to north west This was filled with a light to mid reddish brown silty sand loam (313) identical to the colluvium in nature and may indicate that some of the colluvium in trench 3 must be rig and furrow cultivation soil

At the north end of the trench, a spread of stone (324) underlay colluvium (302) This appeared to continue under the intervening unstripped area to join with cobbled surface (103) at the south end of trench 1 A shallow linear feature (323) filled with mid brown silty loam (322) ran along the south side of the 'metalling' (324) A 3m wide section placed across this produced no dating evidence and it's function remains unknown The untruncated portion of a buried 'A' horizon (331) overlay the cobbles (324), and contained late 3rd - late 4th A D century pottery A buried 'B' and 'B/C' horizon or possibly earlier 'A' horizon (335) lay below the cobbles (324) This would seem to be a continuation of (334) to the west, whilst (331) was almost certainly a continuation of (102) some 15 m to the north

At the west end of the trial trench, c 0 3m of moderu ploughsoil overlay c 0 2m - 0 35m of colluvium The colluvium overlay c 0 2m of the lower untruncated remnants of a buried "A" horizon (330) and this sealed a cobbled surface (326) The surface may have been part of a trackway against the west edge of ditch (328) This ditch ran roughly east to west from

ditch (304) before it turned north near the west end of the trench It cut a smaller ditch orientated north to south (333) Ditch (333) was much shallower than (328), being only 0 2m deep The fill, (332) was a very dark grey brown silty sand loam similar to (327) and (330) The uppermost fill of ditch (328) was (327), a dark grey brown silty sand loam, based on a topsoil of apparently high organic matter status It contained numerous large boulders and may have functioned as a stone lined drain Three sherds of Roman pottery were recovered from this layer, two of which are provisionally dated to the mid to late 2nd century A D

The buried 'A' horizon (330) also apparently sealed the upper fill (327) of ditch (328) or was indistinguishable from it, and is probably a continuation of buried soils (102) and (331) to the north east A sherd of Romano British pottery was found in this layer

5 4 Trench 4 (Fig 5)

This trench, which measured 15m long by 5m wide, was located adjacent to the western boundary of field 0037 near the top of the south-east facing slope to the south of trench 3 It was positioned east-west in order to intersect several linear geophysical anomalies (F) The ploughsoil (401) and underlying colluvial layer (402) were machine-stripped in spits down to the top of clean subsoil (418) at a depth of c 0 5-0 6m No archaeological features were observed in plan above this level

Five cut features were observed Three roughly parallel linear features coincided with geophysical anomalies Near the western end a shallow, flat based ditch (417) ran across the trench orientated northwest-southeast It was 2m wide and 0 3m deep, with gently sloping sides, and was filled with a grey clay loam (416), which was sealed by the colluvial layer Running roughly parallel to this, crossing the centre of the trench, was a larger ditch (404) with a roughly V-shaped profile, measuring 1 8m wide and 0 8m deep It was filled with a mid-brown silty clay loam (403) and appeared to cut the colluvium Another linear cut (406) ran parallel to 404 c 2m to the east It had a shallow V-shaped profile, and was 1 2m wide and 0 3m deep It had two distinct fills, a primary mixed orange sand and brown silty clay loam (413), and a secondary mid-brown silty clay loam with charcoal flecks (405) This ditch was probably sealed by the colluvium No dating evidence was recovered from any of these features

The two remaining features observed in trench 4 were parts of human burials Both appeared to be extended supine inhumations Grave (409) was located to the east of ditch 406 and was roughly parallel to it with the head to the north Only the lower legs of the skeleton (408) lay within the trench, the rest of the body lying beyond the trench to the north The grave had been backfilled with a mid-brownish grey silty loam (407), which was sealed by colluvium The other grave (412) was located adjacent to the southern end of ditch 406, extending to the southwest, and orientated northeast-southwest with the head to the northeast Only part of the ribcage and upper right arm of the skeleton (411) were observed within the trench, the remainder lying beyond it to the south The skull had been cut away by ditch 406 in antiquity The grave was backfilled with a brown sandy clay loam (410) which was sealed by colluvium Both graves were very shallow, only slightly cutting subsoil, and the skeletons were located c 0 6m below the modern ground surface Both

skeletons were partially cleaned and recorded They were not lifted, but re-covered with part of the grave fills, the remainder of the cuts being backfilled with a distinctive orange sand in case of subsequent re-excavation

No dating evidence was recovered from any feature in this trench The alignment of the two burials implied that they were pre-christian in date, and represented part of a dispersed inhumation cemetery of unknown extent It should be noted that disturbed human bone was recovered from ditch 304 c 60m to the north (fill 315) Grave 409 possibly respected ditch 406 which cut grave 412, suggesting some of the ditches may have been roughly contemporary with the burials

5 5 Trench 5 (Fig. 4)

This trench, which was 20m long by 4 5m wide, was positioned across a low knoll at the highest point in the field to test the possibility that the knoll may have been the heavily ploughed remnants of a burial mound located at the most prominent position on the ridge

At the top of the knoll, the subsoil lay c 0 3m below the surface and no features were seen The large proportion of gravel present on the natural ground surface would seem to be the result of plough disturbance In the north half of the trench, the ground dropped away fairly steeply where a possible hollow-way (504) c 2m wide had been cut into it This feature was not investigated further

5 6 Trench 6 (Fig 5)

This trench, which was 21m long and 10m to 12m wide, was positioned to examine the intersection between two linear anomalies (I) and (H) and a very large roughly rectangular anomaly (G)

Much of the trench was occupied by feature (610) which corresponded to the large anomaly (G) This feature was larger than the geophysical survey indicated and of irregular sub-circular shape An east to west machine cut section 3m long by 1 5m wide was placed against the west side of the feature This showed that it was c 0 7m deep on that side but produced no evidence of date or function A line of stones (611) running north to south through the upper fill (612) towards the east side of the feature appeared to be a continuation of the stone fill (607) in ditch (609)

A ditch (606), orientated north east to south west, which showed as the rather vague anomaly (I) on the geophysical survey, ran into the trench from the west This would appear to be a continuation of ditch (704) in trench 7 to the south west The intervening blank area on the geophysical survey was caused by the presence of an overhead power line Ditch (606) was 1 Im wide and 0 65m deep with steep sides and was filled with a grey silty clay loam (605) which represented the primary silting This feature had been recut (604) on the same line and entirely within the original cutline again at 1 Im wide, but only to a depth of 0 35m and then allowed to infill with further deposits of silt (603) This ditch appeared to be cut by feature (610) but the intersection between the two features was also cut by a modern field drain and the relationship was not proved

Another ditch, (609) which corresponded to anomaly (H) and was orientated roughly north to south extended into the trench from the north It measured c 0 7m deep by 2m wide and was infilled initially with lenses of silt (608) and subsequently with a mixture of lenses of silt and large stones (607) These stones appear to continue to the south through the upper fill of the large irregular anomaly (610), which in turn appeared to cut ditch (606) Ditch (609) was part of the major geophysical anomaly that forms part of the field system This may extend northwards to meet either ditch (304) or ditch (328) in trench 3, both of which contained Roman pottery If this observation is correct, then the large anomaly (feature (610)) pre-dates a Roman ditch

5 7 Trench 7 (Fig 5)

This trench, which was 15m long by 4m wide, was positioned to test part of the large rectilinear anomaly (I) near the south west corner of the geophysical plot It confirmed that a ditch (713), probably a field boundary ditch crossed through the trench at the south east corner This had partially filled up with silt (712) before being recut (704) The later cut had partially filled up with silt when the feature appears to have been deliberately filled with small to medium sized rounded stones (703), many of which appeared to have been burnt Several sherds of probable prehistoric pottery were recovered from the upper fill (703)

A second feature investigated m the centre of the trench (706) appeared to be a natural variation in the subsoil and had had a field drain cut down the centre of it

5 8 Trench 8 (Figs. 6,7)

This trench, which was 45m long by 15m wide, was located at the base of the hillslope near the centre of field 0037 Initially it measured 20m by 4m, aligned east-west, and was machined in spits down to subsoil (1004) to investigate the nature of a complex group of amorphous geophysical anomalies It was subsequently realised that a large number of potential archaeological features had been revealed, and sealed by a buried soil horizon (1003) Since the features seemed likely to be associated with a settlement site, the decision was made to widen the trench to the north and south, in order to see a larger part of the pattern of features in an attempt to understand the nature of the complex The trench was also extended eastwards in order to determine how far the archaeological features extended into the proposed extraction area From the eastern edge of this expanded area a 5m wide corridor was also excavated to link the trench with trench 9 to the east

The topsoil (1001) and colluvium (1002) were removed in spits by machine down to the top of layer 1003 where it was present towards the western end of the trench, and down to the top of subsoil 1004 elsewhere Care was taken to avoid undue disturbance of large stones in layer 1003 since it was realised that many of them were packing stones either marking the position of postholes or other features such as pits No finds or burnt stones were noted in the colluvium removed, but these became frequent at the top of layer 1003 The entire area of the trench was hand-cleaned, and the position of all recovered sherds of pottery recorded Sample areas of layer 1003 were removed by hand in order to clarify possible features These areas were planned, and sample features were then excavated

A considerable number of pits and postholes were observed cutting the possible buried topsoil horizon (1003) extending c 20m east from the western end of the trench Most of these could not, without full excavation, be resolved into groups or structures Three structural groups were provisionally identified A line of 13 postpits (group 1040) extended eastwards for a distance of 16m from the west end of the trench None of these was fully excavated, but the average pit size appeared to be c 0 9m Crossing this line, but apparently unassociated with it, was a north-south line of smaller postholes curving to the west at each end (group 1070) 12 postholes were observed extending over a length of c 10m The function of neither of these structures could be determined To the north of group 1040 and to the west of group 1070 the northeastern and southeastern corners of a possible rectilinear structure (1060) were defined by two opposed L-shaped slots The northern slot was sectioned and had a rounded profile, measuring 0 43m wide and 0 13m deep Overall the structure measured c 5m wide northeast-southwest, and was observed to extend northwestwards for at least c 2 5m It was delineated on the southern side for a further 6m by a stonier band showing through 1003 Probable postpipes were detected within the slot at the eastern end, spaced at 0 6-0 8m intervals A c 2m gap in the centre of the east end was occupied by a rectangular pit-type feature measuring 2 3m by 1 9m, with stone concentrated around the edges It was on the same alignment as the adjacent structure, and was almost certainly associated with it

A large number of pits, postholes and other cut features were noted in the western half of the trench, and numerous groups of stones may have been the remains of post settings Several pits were excavated near the southwestern corner of the trench Pit 1020 was subcircular in plan, 1 2m in diameter and 0 25m deep with a flat base It had a brown sandy fill (1021) containing large stones, charcoal and pottery Pit 1025 immediately to the east was circular, 1 67m in diameter and 0 25m deep, with steep sides and a slightly undulating base It had a fill of mottled brown silty loam (1026) containing abundant charcoal, burnt stones, pottery and worked flint

Towards the eastern end of the trench the buried soil 1003 became much thinner Several features were examined near the northern side of the trench Pits 1032 and 1037 both had dark stoney fills but contained no finds They corresponded with part of a line of anomalies (feature J) extending to the northwest on the geophysical survey An isolated postpit (1016) measuring 0 7m in diameter and cutting 0 4m into the subsoil contained a vertical postpipe 0 36m in diameter, but again no dating evidence was recovered

Only two other features were observed between postpit (1016) and ditch 803 in Trench 9 An isolated oval pit (1015) near the eastern end of the trench, which measured 1 90m by 1 50m by 0 32m thick, was filled by a mid-dark brown slightly clayey sand with moderate stones and occasional flecks of charcoal It contained no finds An isolated small burnt Probable (1039) was located at the western end of the corridor linking trench 8 to trench 9, but was not excavated

5 9 Trench 9 (Fig 8)

Located to the east of trench 8 (and subsequently joined to it), trench 9 was positioned to

intersect a north-south ditch (feature N) known from geophysical survey, and to examine adjacent areas apparently devoid of features The trench was orientated east-west and measured 20m by 4m The ploughsoil (801) and underlying colluvium (802) were machine-stripped down to the top of undisturbed subsoil (818) in a series of spits No archaeological features were observed above this level

Three cut features were observed in this trench The north-south ditch (803), known from geophysical survey to continue beyond the trench for c 37m to the south and at least 35m to the north, was located near the western end of the trench It was shown to be 2 Im wide and 0 9m deep, with a V-shaped profile It was infilled with a sequence of deposits of re-deposited subsoil and colluvium (804-811), and was sealed by colluvial layer 802 On its western side it cut (or recut) the eastern side of a shallow linear feature (820, fill 819), which was at least Im wide and 0 25m deep The northern terminal of a possibly linear feature (813, fill 812) was located at the southern side of the trench 7m east of 803 It was up to 1 56m wide and 0 5m deep, and was observed for a length of 1 8m It had a rather irregular profile It was partly cut through colluvium 802 and partly sealed by it No dating evidence was recovered from any of these features

5 10 Trench 10 (Fig **6**)

This trench, which was 30m long (east to west) by 5 5m wide, was positioned on the east side of the large natural hollow first found in trenches 1 and 3 to the west in order to investigate anomaly (L) and to test for the presence of settlement features Here, the ground appears to rise slightly before falling away to the east to the lower flat part of the field The subsoil was encountered at c 0 4m below the present day ground surface along most of the trench and there was little evidence for a buried colluvial or cultivation soil, presumably because of plough truncation No features were observed

5 11 Trench 11 (Fig **6**)

This trench, which was 30m long (east to west) by 4m wide, was positioned 20 m to the south of trench 10 (and parallel to it) in order to examine anomaly (K) and test for the presence of a settlement overlooking the field system The subsoil was encountered at c 0 35m below the present day ground surface along most of the trench and there was little evidence for a buried colluvial or cultivation soil, presumably because of plough truncation No features were observed

5 12 Trench 12 (Fig 5)

This trench, which was roughly 20m square, was positioned on the edge of geophysical prospection area at towards the south western corner of the field to test for the presence of archaeological features at the break of slope at the bottom of the moraine ridge near it's southern end

A large sub-rectangular scoop (815) was found near the centre of the trench This was c 7m long from east to west and c 5 5m across from north to south A quadrant section was excavated of the north west corner of the feature, which was filled with a very dark grey

brown silty sand loam (814) which contained frequent charcoal flecks The feature was c 0 3m deep towards the centre, with a channel a further 0 2m deep running around the bottom of slope of the cut There were no post settings within this deeper annular channel and there was no evidence for either a date or function The feature was definitely sealed below the colluvial layer, which would appear to be a rig and furrow cultivation soil in this trench

To the south of scoop (815), a 1m wide section was placed across a linear feature (817) where it turned at c 45 degrees The feature, which was c 0 8m wide and 0 25m deep was filled with a mid brown loamy silt with numerous stones (816) similar to the ditch fills encountered in (304) and (609) This may have been a shallow field ditch There were no finds

5 13 Trench 13 (Fig 8)

This trench, which was 23m long by 4m wide, was positioned towards the south east corner of the field to examine the long linear anomaly (P) and to test the interpretation that the numerous parallel anomalies on the lower ground were the result of rig and furrow cultivation

The furrows were extremely indistinct within the lower colluvial material in the trench sections and were only cut 0 03 - 0 05m into the top of the subsoil

A section placed across anomaly (P) showed that it was a V-profile ditch (1304) that was 1 1m deep and c 2 1m wide with steeply sloping sides The lower fill was primary silting (1305) consisting of washed in subsoil type materials with some loamy lenses, whilst the upper fill (1303) was also silting but apparently with a higher topsoil component A sherd from the neck of a 2nd century Roman flagon was the only find from the ditch

5 14 Trench 14 (Fig 8)

This trench, which was 20m square, was positioned some 90m eastwards from the base of the ridge out onto the area of flat ground inside the field system with the intention of testing whether ridge and furrow features (Q) detected by the geophysical survey masked earlier features The subsoil lay c 0 4m below the surface, with only a shallow deposit of light to mid reddish brown relic cultivation soil underlying the modern ploughsoil Two parallel shallow furrows crossed the trench from north east to south west at the predicted location There were no finds, but the features would be consistent with those typical of medieval or post-medieval cultivation No other features were observed on the intervening ridges of gravel subsoil

5 15 Trench 15 (Fig 9)

This trench, which was 19m long by 4 5m wide, was positioned to test a curvilinear anomaly (R) and to examine an area between that anomaly and another to the south (S) for associated features

At the north end of the trench, anomaly (R) proved to be a hollow-way (910) c 5 5 m wide and 0 4m deep orientated south west to north east which was wider than indicated by the geophysical survey It had been roughly metalled with small stone cobbles (907) There were no finds

At the south end of the trench another hollow-way (906) was found It was orientated roughly east west and was not evident on the geophysical survey This was c 2 5m wide and up to 0 15m deep and also contained metalling of small stone cobbles Deeper ruts along the north and south edges were probably cart wheel tracks There were no finds

5 16 Trench 16 (Fig 9)

This trench, which was 10m long by 5m wide, was positioned to examine a roughly linear anomaly (S) which passes just to the south of trench 15 (to the west) and an area to the south of anomaly (S) for other features

The only feature observed in the trench was a ditch (916) which ran across the trench from east to west A Im wide section was placed across the feature by the western site edge and the feature was excavated to a depth of 0 5m, but not bottomed The sides sloped steeply at c 60 degrees and the feature measured c 1 3m wide at the top It was filled with a mid greyish brown silt and large stones (915) and was very similar in nature to ditches (304), (202), (204) and (206) to the south west and ditch (903) to the south There were no finds

5 17 Trench 17 (Fig 9)

This trench, which was 30m long by 5 5m wide, was positioned to examine a linear anomaly (T) which was orientated east to west and an area each side of that anomaly for other features

The anomaly was a ditch (903) running across the trench which ran parallel to ditch (916) in trench 16 to the north A Im wide section was placed across the feature adjacent to the western trench edge The feature had a V-profile with steeply sloping sides and was c 1 3m wide at the top and 0 65m deep The fill, which was a reddish brown silty sand loam with numerous rounded stones was similar to fill (915) in ditch (916) to the north and the two may be contemporary There were no finds

A probable hollow-way (918) towards the south end of the trench was not found by geophysical prospecting probably because of the increased depth of colluvium at the south end of the field A section Im wide was placed across this feature, which was 3m wide The feature was not fully excavated and there were no finds

5 18 Trench 18 (Fig 9)

This trench, which was 30m long by 5m wide, was positioned to examine the intersection of two vague linear anomalies (U) and an area to the east of that intersection

The intersection of the features appears to occupy the entire width of the trench at the west end A linear feature c 2m wide (919) was observed running east-south-east to west-north-west This was not investigated and could have been either a hollow-way or ditch There was no dating evidence

5 19 Trench 19 (Fig 9)

This trench, which was 16m square, was positioned to examine the intersection between anomalies (T) and (V) and to investigate a larger area to the north and west of that intersection The intersection of the two linear anomalies was not found The only features observed were two parallel pairs of wheel ruts which were very narrow and appeared to have been made by carts rather than modern vehicles

5 20 Trench 20 (Fig 6)

This trench was located to the south of trench 8 in order to determine the extent of the potential features observed there The trench was orientated northwest to southeast and measured 21m by 9 5m Only the ploughsoil (1101) and the very top of the underlying colluvium (1102) were removed by machine since archaeological features were observed directly below the ploughsoil

A stone-filled ditch (1104, fill 1103) ran roughly parallel to the northeast side of the trench, orientated northwest to southeast It was not visible on the geophysical survey plot A section (1011) excavated near the centre of the trench showed it to be 2 15m wide and 0 50m deep cut into the colluvium A sandy primary fill (1012) was overlain by a lens of stones, charcoal and burnt clay lumps (1010) derived from a hearth or oven (1009), cut into the southern side of the partially infilled ditch, which contained large quantities of carbonised seeds The hearth was semi-circular in shape and measured 1 75m east to west by 1 30m north to south by 0 15m thick It consisted of burnt clay, with flat stone slabs laid around the interior After the hearth had gone out of use the rest of the ditch hollow became infilled with a very stony deposit (1013) No dateable finds were recovered A box-section was excavated across the ditch at the eastern end of the trench (1106, fill 1105), from which several sherds of pottery were recovered The section was excavated through the colluvium below the base of the ditch to the top of orange sand subsoil (1120), revealing several earlier features

Parallel to the northern edge of ditch 1104, and cut by it, was a linear cut (1110, fill 1109), 0 40m wide at the top of the subsoil, and over 0 33m deep It was not excavated Four small postpipes were observed within the slot, suggesting that it was structural in function, although the short length seen prevented further interpretation Three worked flints were recovered from it

At the south-eastern trench edge ditch 1104 cut a linear east-west feature (1118) which continued beyond the trench at each end It was extremely vague except towards the base, but it could be recognised due to its stoney fill It was c 1 2m wide and 0 61m deep, with very steep-sloping sides Three circular impressions in the flat base probably represented post settings, suggesting that the feature was a palisade trench A sherd of pottery was

recovered from one of the post impressions 1118 appeared on the geophysical survey (feature M) to continue at least 65m to the east Three possible postholes (1121, 1122 and 1123) were noted cut into subsoil running parallel and adjacent to the northern side of 1118 These were not excavated

A large circular pit (1108) was located near the western corner of the trench, to the north of 1118 It was 2 25m in diameter and 0 60m deep, and was filled (1107) with a greyish brown sandy loam containing large amounts of large charcoal fragments, carbonised seeds and stones Patches of burnt sand at the base suggested that burning had occurred within it No dateable finds were recovered from it It showed as a strong anomaly on the geophysical survey A further pit (1124) 8m to the southeast was noted but not investigated An isolated probable posthole (1125) was similarly noted but not excavated near the western corner of the trench

All of the features observed in trench 20 were cut through the general colluvial deposits, although many of them were not apparent in plan at the top of the layer All of the potentially dateable finds recovered (flint and pottery) were prehistoric in character except for a single sherd of Roman pottery recovered from the top surface of the colluvium

5 21 Trench 21 (Fig 6)

This trench, which was 22 5m long by 8m wide, was positioned 16m to the south of trench 20 to determine whether features extended further along the bottom of the slope to the south

The trench was machined in spits to the subsoil which lay c 0 8m below the present day ground surface No features were seen other than a modern land drain The archaeological activity evident in trenches 20 and 8 to the north would appear not to extend this far southwards

5 22 Trench 22 (Fig 6)

This trench was located at the base of the east-facing hillslope in an attempt to determine the northern extent of the features observed in trench 8 It was orrentated northwest-southeast and measured 18m by 10m The topsoil (1200) and the underlying colluvium (1201) were machine-stripped in spits to subsoil (1203) along the northeastern side and to the top of archaeological deposits along the southwestern side

A large feature (1210) occupied most of the southern half of the trench, extending beyond it to the west and south A section excavated against the southwestern side of the trench near the western corner revealed a sequence of deposits (1212, 1205, 1206, 1215) sloping down into the feature from its western side These overlay at least one phase of cobbled surface (1207/1213, 1209) which in turn sealed a possible buried turf horizon (1208) The base of the feature was not seen Cutting the northwest side of the top of the infilled feature was a stone-filled ditch 1204, orientated northwest-southeast, which terminated 5m into the trench and was c 0 75m wide Another possible ditch (1214) was observed to the south of this, running north-south It was not investigated

None of the features observed in this trench could be detected on the geophysical survey plot Feature 1210 appeared to form the northern limit of the group of features observed in trenches 8

5 23 Trench 23 (fig 8)

This trench, which was 17m long by 4m wide, was orientated roughly south east to north west, and positioned c 20 m to the south east of the settlement activity in trench 8 in order to assess whether features extended out onto the flat ground to the south east The trench was machined to a depth of c 0 6m Stones which appeared to protrnde from the underlying natural subsoil and occasional pieces of burnt stone were evident at this level Experience in trench 8 had shown that the presence of these subtle indicators were a good guide for the bottom of disturbance A small section c 4m by 2m in size was reduced to the top of the subsoil (which lay c 0 15m lower down) at the extreme south end of the trench This did not reveal any archaeological features, but did confirm that reducing the level of the trench any further by machine would potentially cause unnecessary damage to any underlying archaeological features by dragging any protrnding stones No further work was undertaken in the trench

5 24 Trench 24 (Fig 6)

This trench, which was 14m long by 5 5m wide and orientated roughly south west to north east, was positioned c 25 m to the north east of the settlement activity found m trench 8 in order to assess whether that activity extended out onto the flat ground The trench was machined in spits to a depth of c 0 7m No features were seen and the edge of the settlement activity would seem to be slightly further to the west

5 25 Trench 25 (Fig 6)

This trench, which was 11m long by 4m wide, was positioned c 17m to the north of trench 22 in order to establish whether any traces of settlement existed at the base of the main slope of the ridge to the north of the cobbled surfaces found in trench 22 The trench was machined in spits to the top of the subsoil No features were observed and the edge of the activity would seem to he to the south towards trench 22

6 0 DISCUSSION

The Flaxby borrow pit site is archaeologically significant because it has been shown to contain at least two areas of settlement, of differing date, a possible cemetery and an extensive field system with associated trackways All the features appear to date to the Iron Age and Romano-British periods

6 1 The Iron Age settlement site

The Iron Age settlement appeared to he at the base of the moraimc ridge close to a possible

spring It appeared to extend some 75 metres along the base of the slope and eastwards some 40 metres out from it Features were found to be buried by between 0 5-0 9m of topsoil and hillwash Numerous posthole alignments were found m the sampled central area, possibly indicating several buildings, as well as pits A small but discrete Iron Age pottery assemblage was found associated with these features and in the buried 'A' horizon which sealed them Evidence was found for a hearth and possible palisade slot, together with the suggestion that stratigraphy may be up to 0 5m deep against the foot of the slope Evidence of Iron Age features was found on the upper part of the ridge in trenches **6** and 7 and it is possible that the cemetery in the area of trench 4 may also be pre-Roman in date It is uncertain at this stage how much of the field system might belong to this earlier phase Neither the geophysical survey nor the trial trenching indicated that the settlement area was definitely enclosed

6 2 The Romano-British settlement site

The Romano-British settlement appears to be located in a dished shaped depression on the top of the ridge Some elements were buried by a deep layer of colluvium up to 1 2m thick, while others he just below the ploughsoil Partial evidence was found for a series of sub-rectangular structures constructed by post and trench method Associated with these were evidence for a cobbled trackway, a cobbled surface, pits and ditches As with the Iron Age settlement, neither the geophysical survey nor the trial trenching indicated that the settlement area was definitely enclosed

6 3 The finds

The Iron Age pottery assemblage appears to date to the **6**th or 7th century BC based upon parallels from East Yorkshire Not many of the sherds recovered, however, were particularly diagnostic Other ceramic finds also included a round-sectioned loom weight

The Roman pottery assemblage appears to commence around the middle of the 2nd century AD and the latest material (one sherd of probable Huntcliff type, context 331 AC) dates to the middle or late 4th century AD Material of the 3rd century AD is also present The sample size is too small for meaningful comment on the intensity of occupation represented by the pottery Of possible note, however, is the range of the assemblage, with both samian and colour coated fabrics present This is conceivably wider than might be expected on what appears to be a settlement of no great status

Significant carbonised seed assemblages were identified in two of the seven samples taken Both were derived from the southern part of the Iron Age settlement and contained very large quantities of bread wheat, oats and mayweed Other contexts sampled in the area of the Romano-British settlement contained only small quantities of carbonised material and one sample appeared to have been heavily contaminated The seed assemblages appear to be atypical of the Roman period or late Iron Age and for this reason the site is of particular importance in terms of the potential botanical assemblage it contains

Animal bone was found to be both prolific and generally very well preserved Most was asssociated with contexts which appeared to be Romano-British in date, while the more

heavily leached and fragile bones coincided with trenches containing possible Iron Age features The good preservation appears to derive from the calcareous nature of the moraine and the protection provided by the colluvium As few rural sites of this period have been excavated in the Vale of York, the good preservation of the bones together with their relative abundance means that the site has considerable regional importance for the study of animal bone dating to the Romano-British period

7 0 CONCLUSION

The evaluation has established that the remains of both Iron Age and Romano-British settlement with associated field systems survive within the Flaxby borrow pit site The archaeology is partially masked by colluvium and is generally well preserved The remains appear to span a broader time-period than those encountered at Bayram Hill (Fraser and Robinson 1994) and the settlement sites appear to be morphologically different as they are potentially unenclosed The pottery assemblage is again unusual in its quality and although there are not significant quantities of carbonised botanical remains, animal bone was both relatively abundant and well preserved

The settlement sites are therefore judged to be of significant regional importance Since planning permission has been granted for extraction from the area of the Iron Age settlement and the field system(s) associated with both settlements, these elements should be fully recorded in advance of work commencing The settlement area should be examined by intensive open area excavation, while the field system should be extensively sampled The later Romano-British settlement site would be adversely affected by the creation of topsoil and subsoil bunds on the top of the ridge The northern part of the southern subsoil bund appears to affect a settlement/cemetery area and it should therefore be redesigned to avoid these elements (see fig **10**)

8 0 RECOMMENDATIONS

8 1 The extraction area - field system

8 1 1 Since the features associated with the field system extend throughout the extraction area, preservation *in situ* is not regarded as a viable option

8.1 2 Limited excavation should be undertaken to determine, if possible, to which settlement phase the various components belong

8.1 3 A period of not less than two weeks should be allowed for excavation to take place This work should take place prior to the commencement of extraction works

8 1 4 A minimum of one section should be excavated across each major field system element and recorded Sections should be a minimum of 2m wide and either excavated by machine or by hand as appropriate

8 1 5 Ditch junctions should be examined for evidence of phased development of the field system

8 1 6 Other groups of isolated anomalies identified *in* the geophysical survey should be examined

8 1 7 Sections across each of the trackways identified should be excavated and recorded Sections should be a minimum of 2m wide and either excavated by machine or by hand as appropriate

8 1 8 All further machining should be undertaken using a 360° excavator with a broad bladed ditching bucket This operation should be carried out under archaeological supervision to an appropriate depth to be determined by the archaeological site director

8 1 9 Exposed subsoil surfaces should be left undisturbed and untrafficked until the archaeological investigations are complete

8 1 10 Suspension of archaeological investigations as a result of weather conditions should be at the discretion of the archaeologist

8 1 11 The cost of both excavation and post-excavation should be agreed in writing prior to the commencement of work on site *P*ost-excavation costs should be re-assessed following the completion of the archive assessment report (see **8 4 5** below)

8 2 The extraction area - lower settlement area

Preservation in situ

8 2 1 This area of settlement appears to he wholly within the proposed extraction area and should if possible be preserved *in situ* If this option is adopted the boundary of the settlement area plus an appropriate buffer area (to be agreed in writing with the County Archaeologist) should be marked out with stakes by McAlpine's consultant archaeologist The area should then be fenced to this line prior to extraction works commencing

8 2.2 All field dram re-instatement and subsequent backfilling of existing trial trenches should be carried out under the supervision of an archaeologist

Preservation by record

8 2 3 If the settlement is to be part of the extraction area, then any works should be preceded by a full open area excavation of the site

8 2 4 A period of not less than six weeks should be allowed for excavation to take place

8 2 5 If excavation takes place at the same time as extraction on other parts of the site, the area of excavation together with a buffer area 10m wide, together with space for excavated spoil, site huts and vehicles should be fenced to separate these areas

8 2 6 The area should be stripped of topsoil and colluvial material using a 360° excavator with a broad bladed ditching bucket This operation should be carried out under archaeological supervision to an appropriate depth to be determined by the archaeological site director

8 2 7 All arisings should be removed from the area of excavation in lightweight vehicles (either by 3-ton dumper or 10-ton earthmover)

8 2 8 Exposed subsoil surfaces should be left undisturbed and untrafficked until the archaeological investigations are complete

8 2 9 Suspension of archaeological investigations as a result of weather conditions should be at the discretion of the archaeologist

8 2.10 The cost of both excavation and post-excavation should be agreed in writing prior to the commencement of work on site Post-excavation costs should be re-assessed following the completion of the archive assessment report (see **8** 4 5 below)

8 3 Soil storage area - upper settlement area

Preservation in situ

8 3 1 Since the site is only partially covered by colluvium and significant areas he just below the topsoil, preservation *in situ* should be the most appropriate option in this area It is considered that the formation of both topsoil and subsoil bunds in this area would have a serious impact on archaeological deposits It may however be possible to redesign the extent of the southem subsoil bund in order that its impact is reduced to an acceptable level

8 3.2 Large scale mounds through compression may adversely affect the archaeology m this area In addition, bunds could change ground conditions which may adversely affect preservation

8 3.3 All field drain re-instatement and subsequent backfilling of existing trial trenches should be carried out under the supervision of an archaeologist

Preservation by record

8 3 4 If the bunds are to be allowed then area excavation should be undertaken both of the bund areas and also of any haul routes associated with them

8 3.5 A detailed excavation strategy should be drawn up and agreed in writing with the County Archaeologist prior to the commencement of any archaeological works in this area

8 4 General excavation strategy

8 4 1 Following topsoil removal all areas exposed should be cleaned and all archaeological features planned and recorded

8 4.2 A hand excavated section should be used as the minimum level of investigation for all the features identified For major boundary features, such as ditches, sample trenches 2m wide should be excavated at appropriate distances along the feature Features of a settlement, funerary or ceremonial nature (such as domestic structures or graves) would require more detailed examination

8 4 3 All features would be recorded by means of measured plans and sections, photographs and written records Context recording would be based on the NAA site recording system

8 4 4 Samples (such as for palaeobotanical analysis or radiocarbon dating) would be taken from excavated features as considered appropriate Samples and artefacts recovered during any excavations will be sent to appropriate specialists for assessment and analysis

8 4.5 Upon completion of the excavations an assessment of the archive for further analysis will be produced in accordance with the procedures established by English Heritage in Management of Archaeological Projects 2 (1991) The primary purpose of the assessment is to collate the information retrieved during the excavation and to identify where further analysis would be appropriate The assessment will assist in the provision of a revised costing and a time schedule for the analysis of the archive The assessment will include an interim note on the results of the excavations to be submitted to the Sites and Monuments Record

8 4.6 A report would be prepared for publication in an appropriate archaeological journal such as the Yorkshire Archaeological Journal

8 4.7 Upon completion of the report, the site archive and excavated material would be deposited in an appropriate museum (such as the Harrogate Museum), subject to the permission of the landowner It is recommended that this matter be agreed with the landowner and the museum at an early stage

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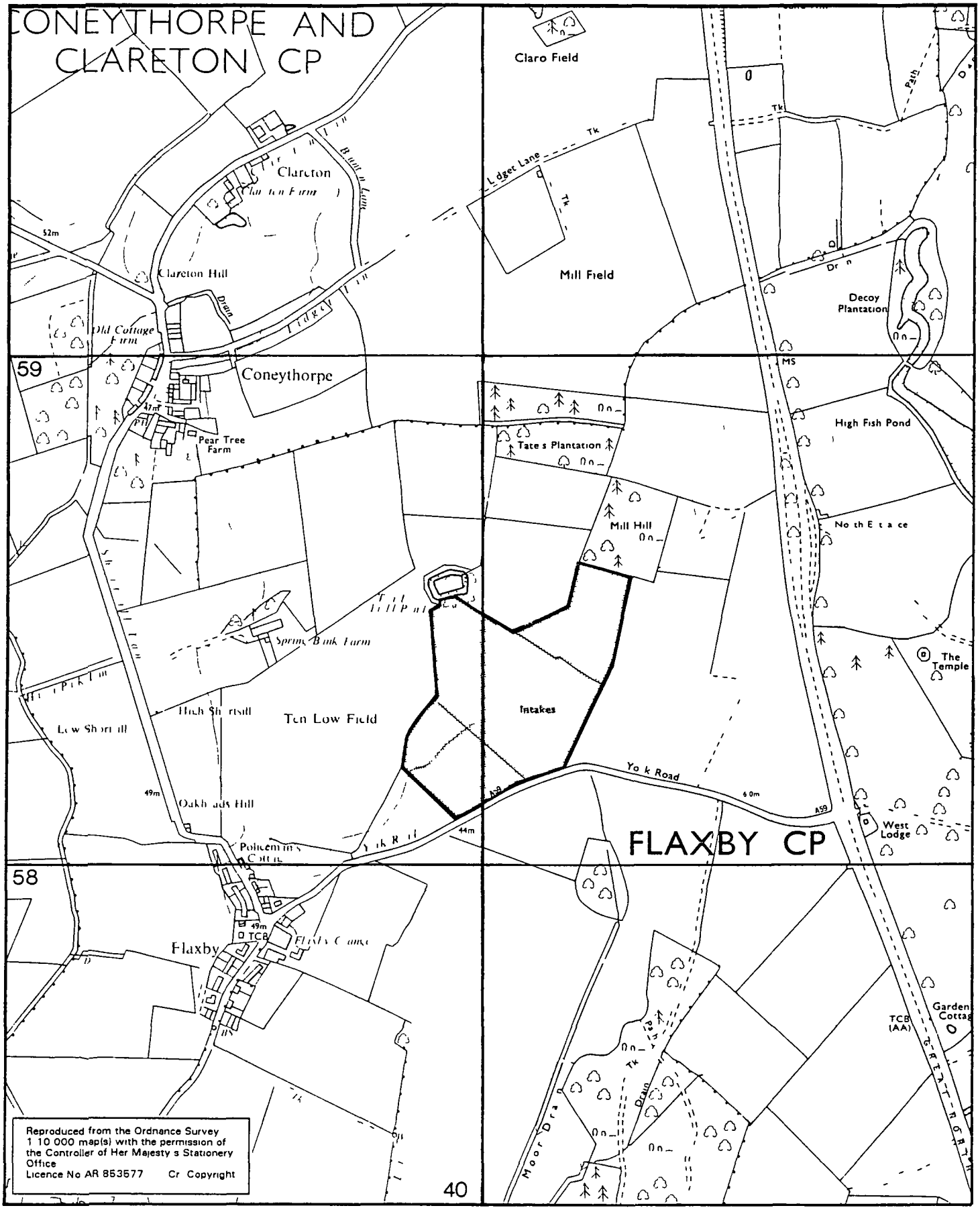

Fig 1 Site location

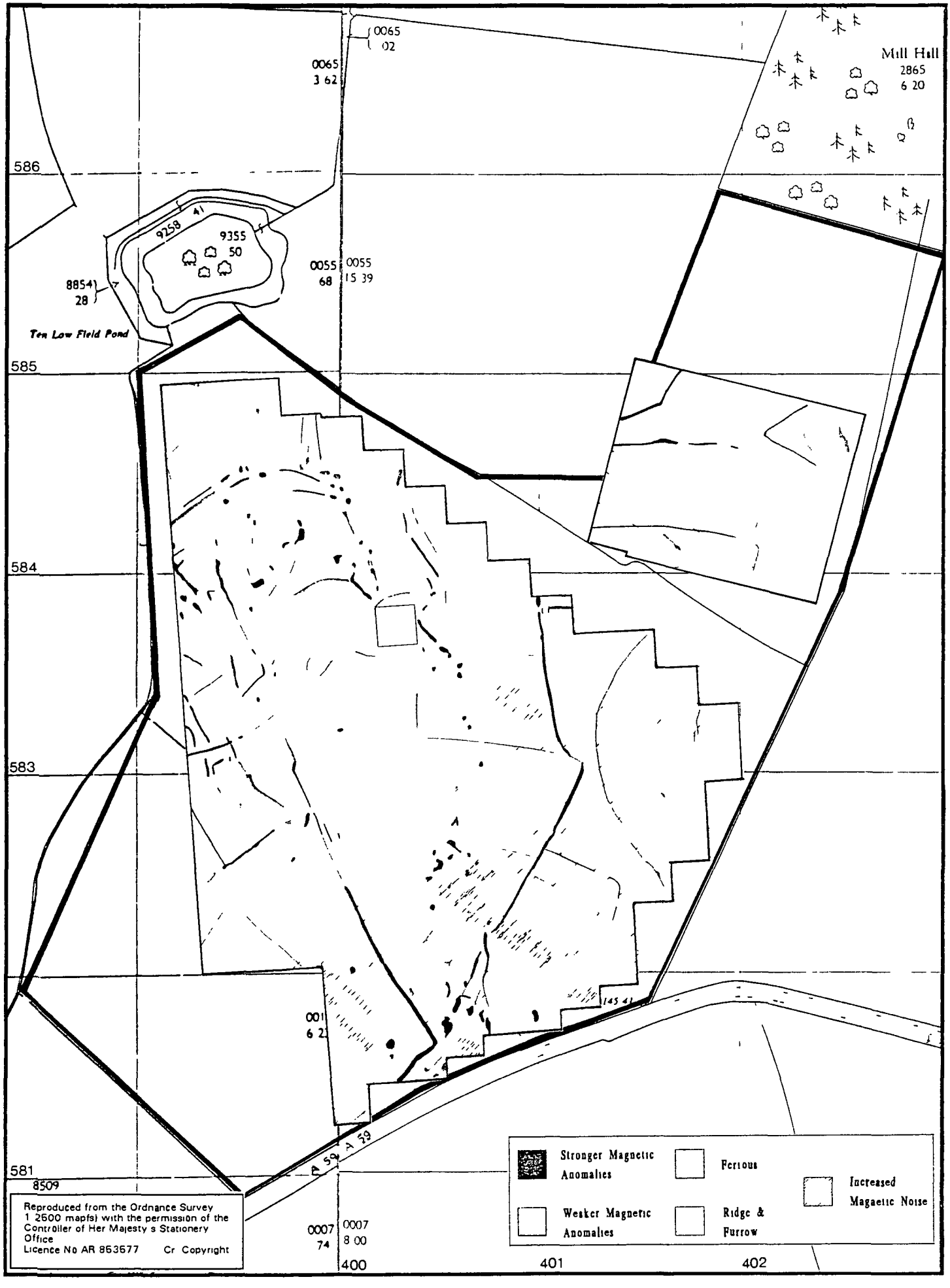

Fig 2 Extent of geophysical survey and features identified

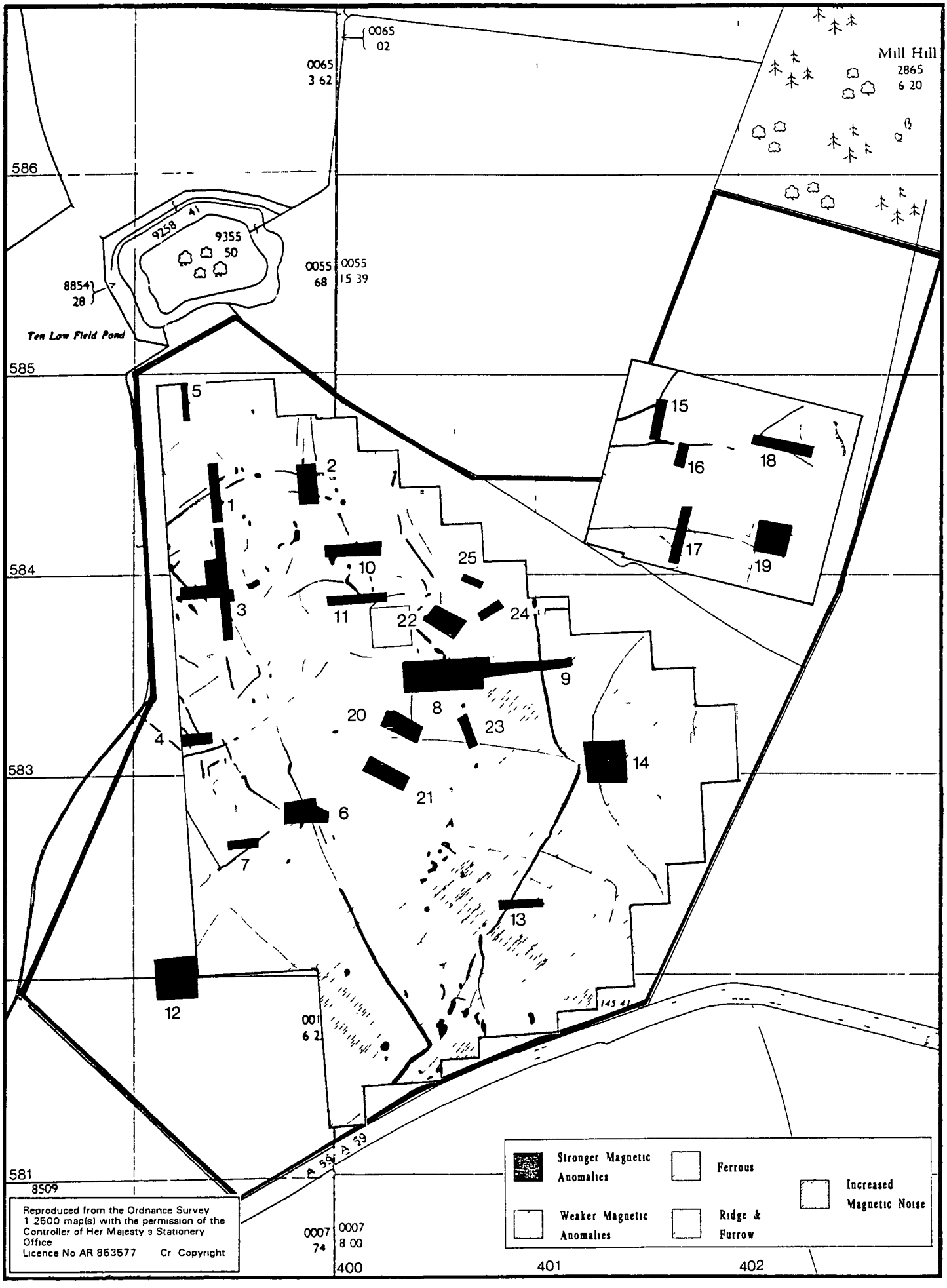

Fig 3 Trench locations

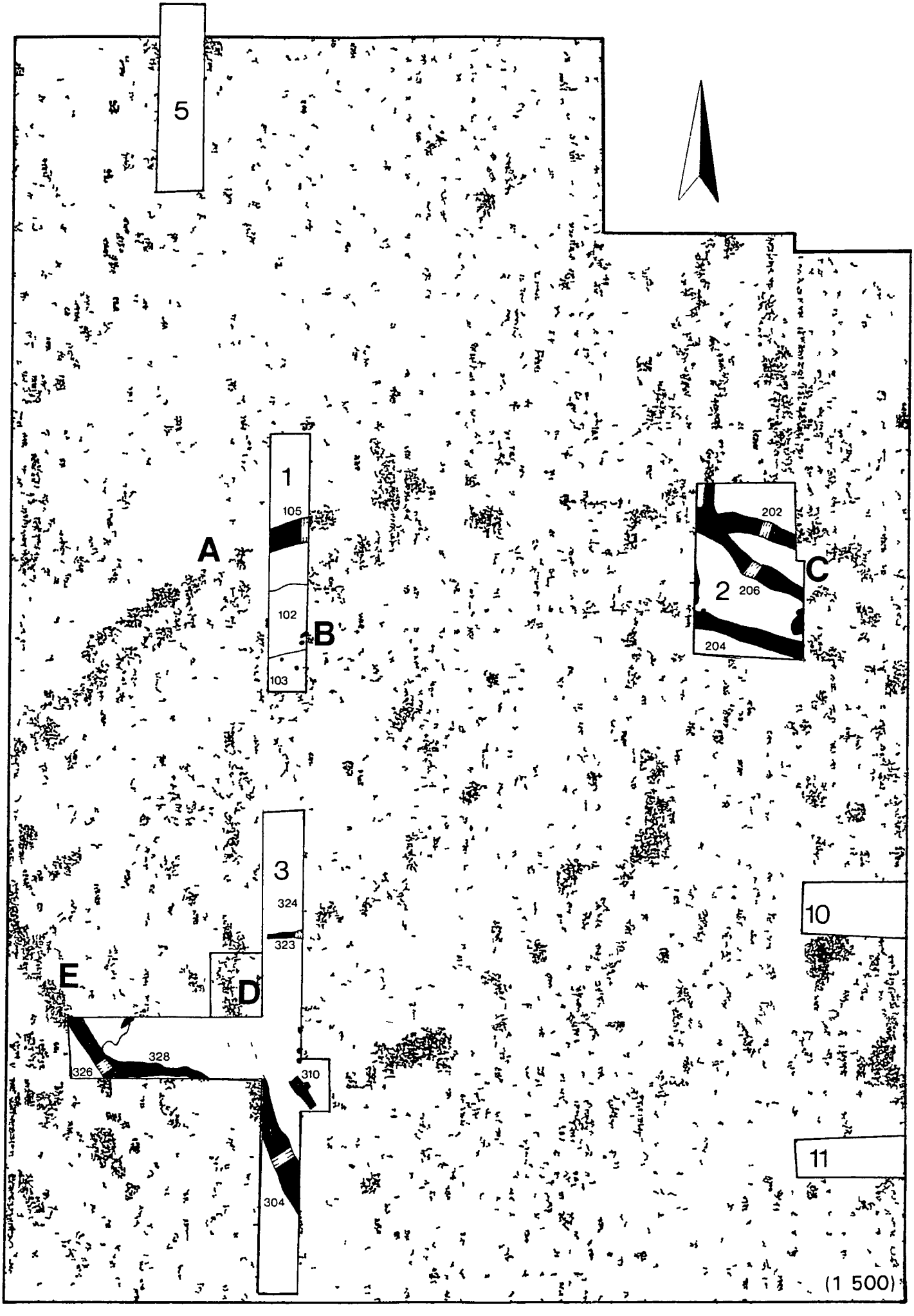

Fig 4 Detailed trench locations and excavated features in relation to geophysical anomalies

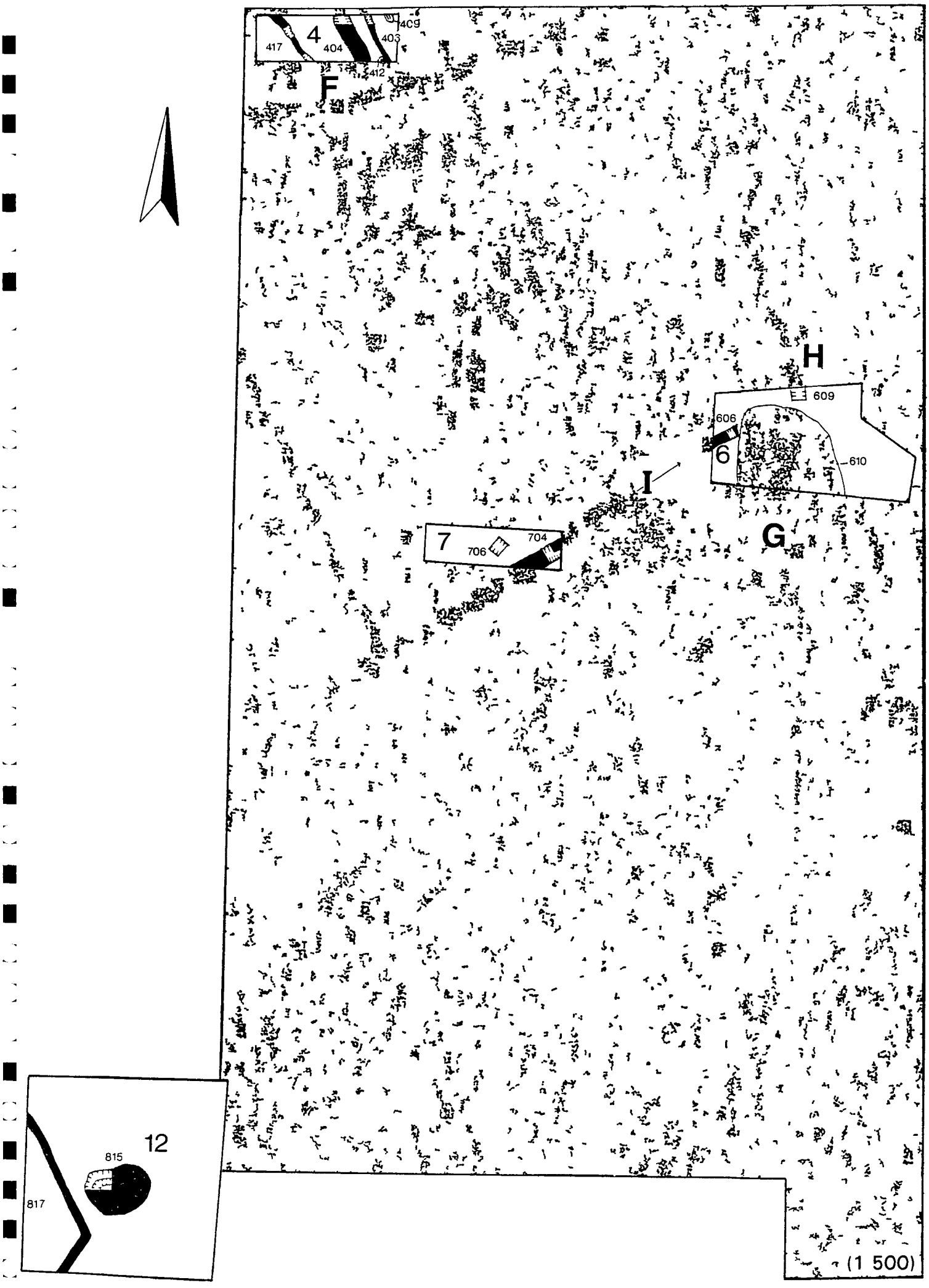

Fig 5 Detailed trench locations and excavated features in relation to geophysical anomalies

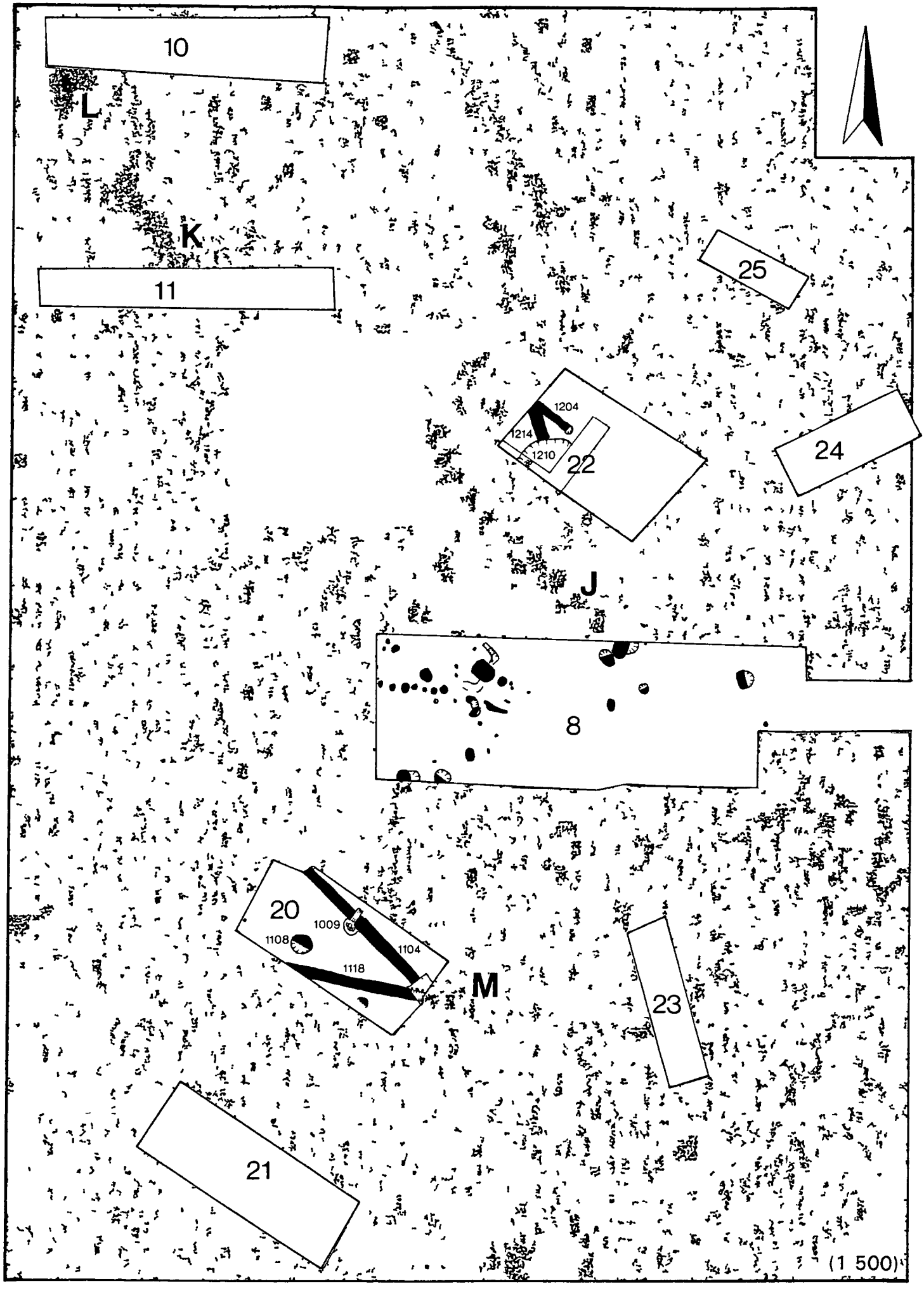

Fig 6 Detailed trench locations and excavated features in relation to geophysical anomalies

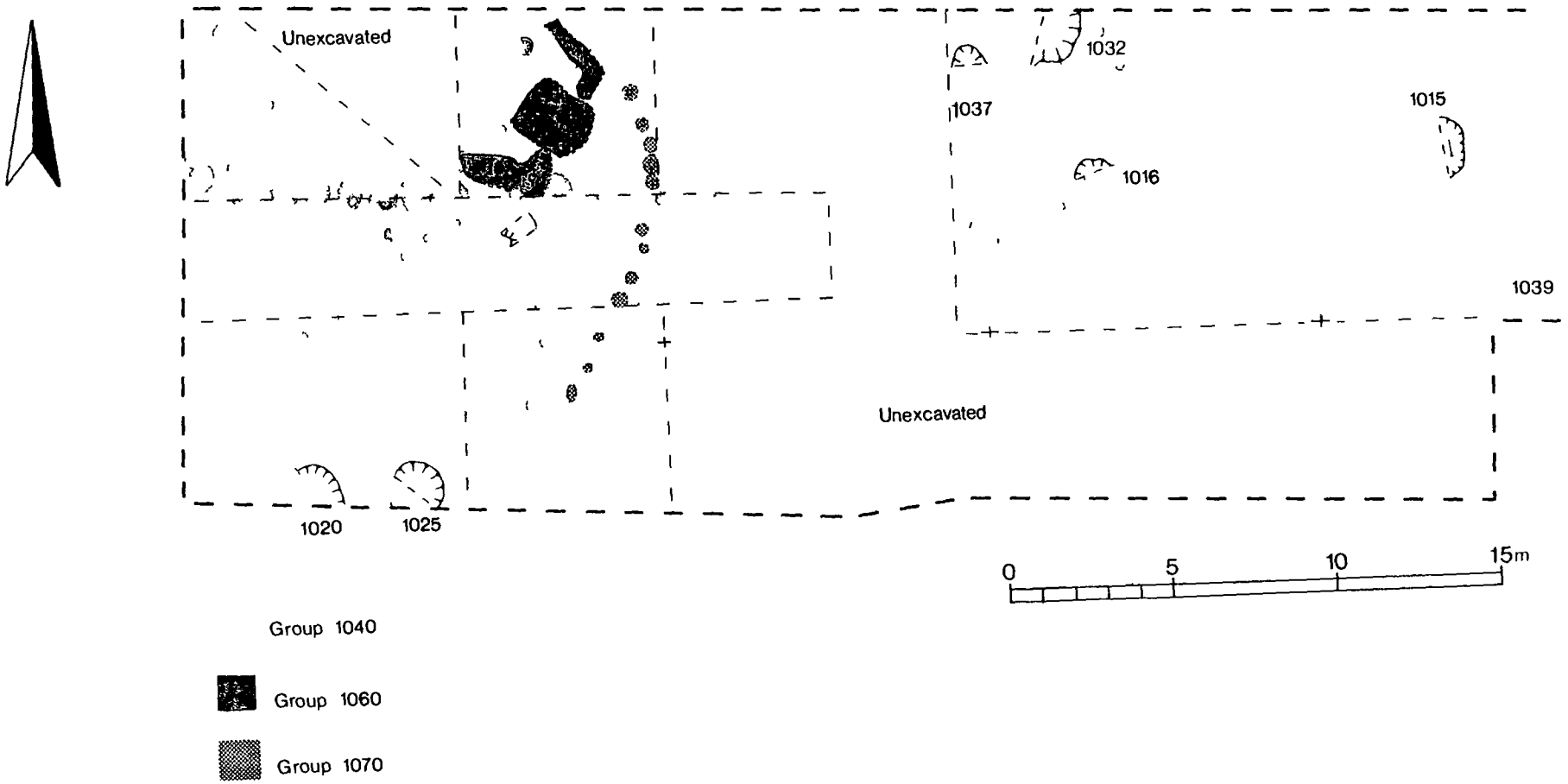

Fig 7 Detailed plan of features in Trench 8

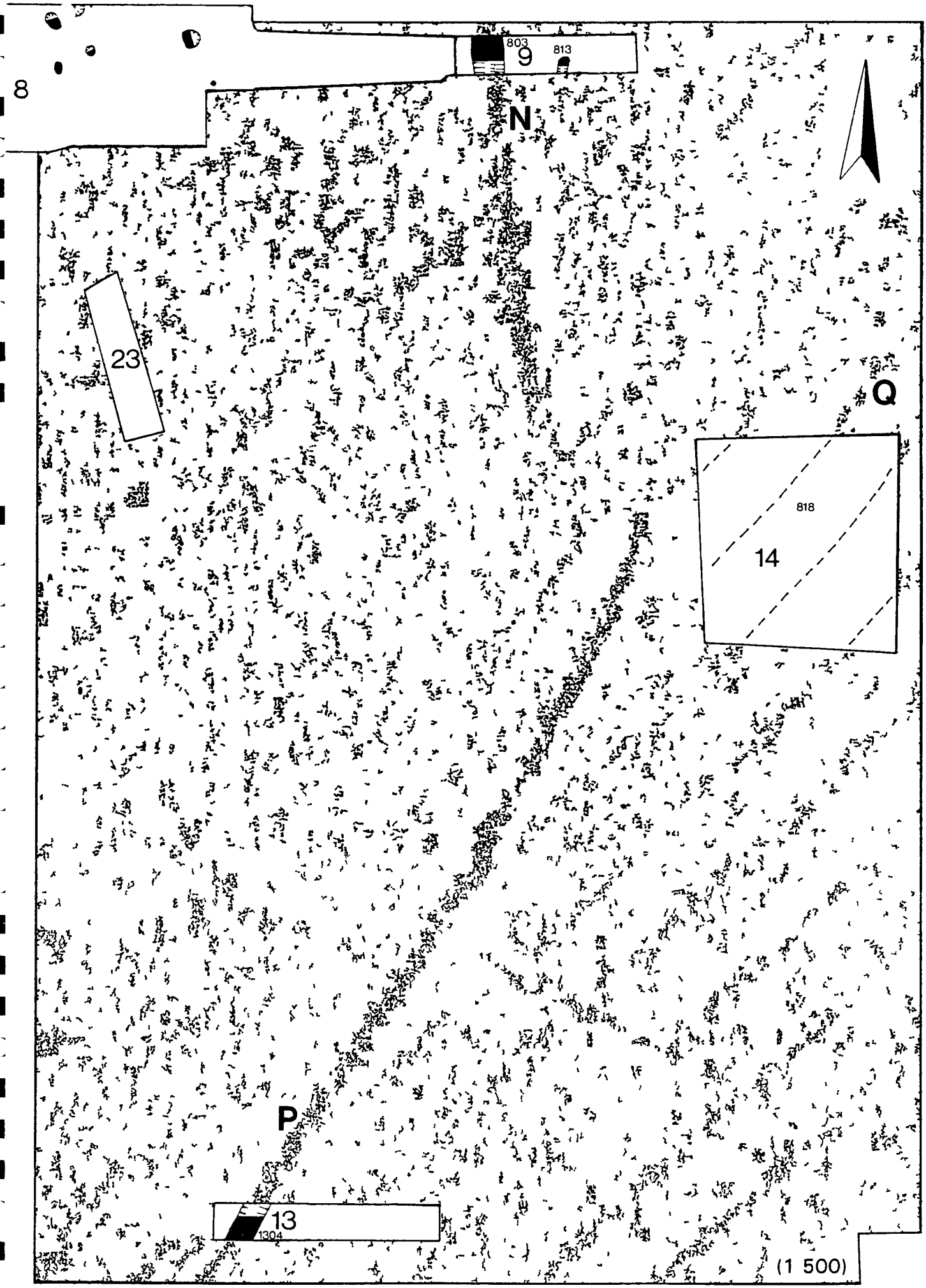

Fig 8 Detailed trench locations and excavated features in relation to geophysical anomalies

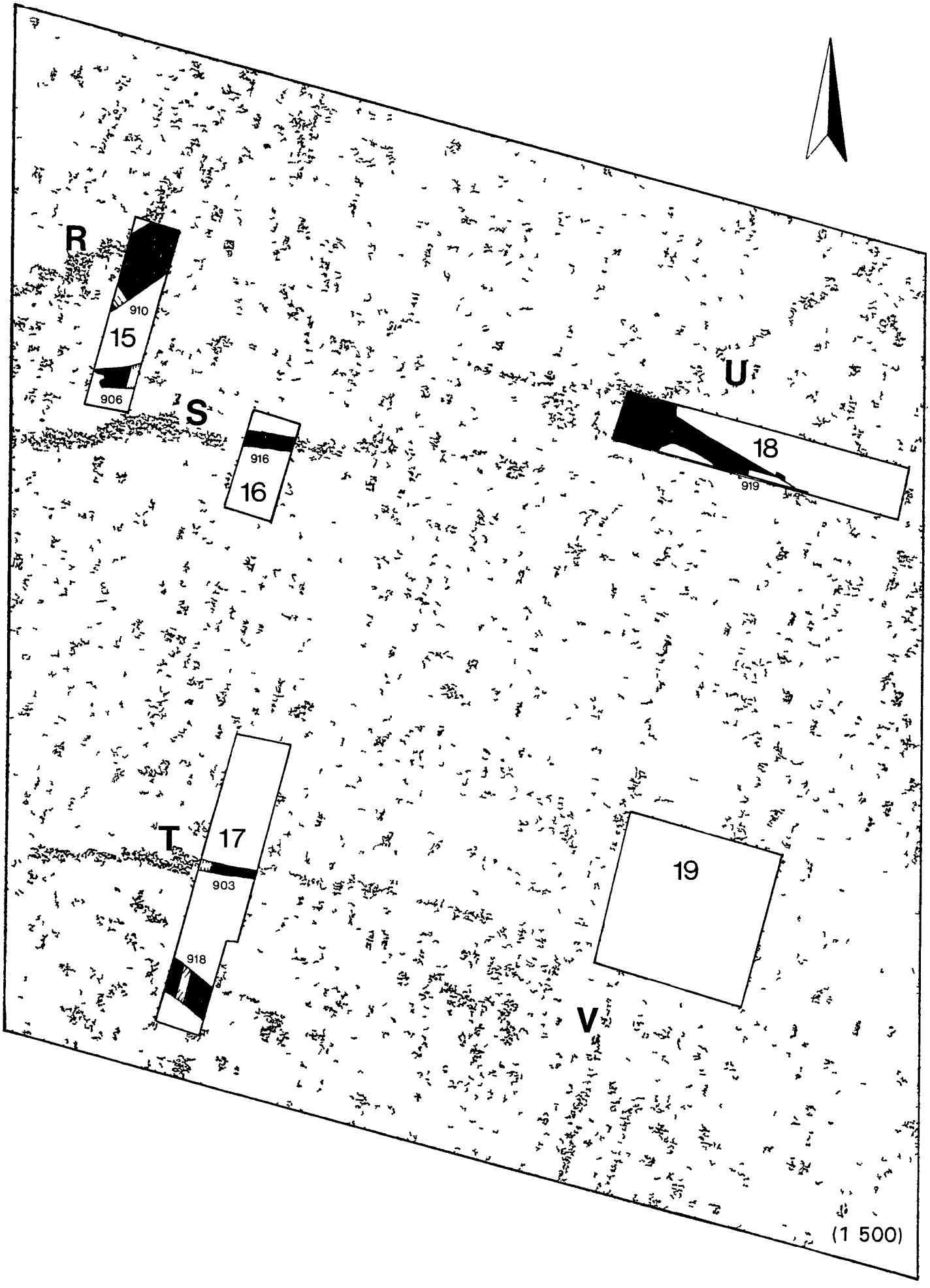

Fig 9 Detailed trench locations and excavated features in relation to geophysical anomalies

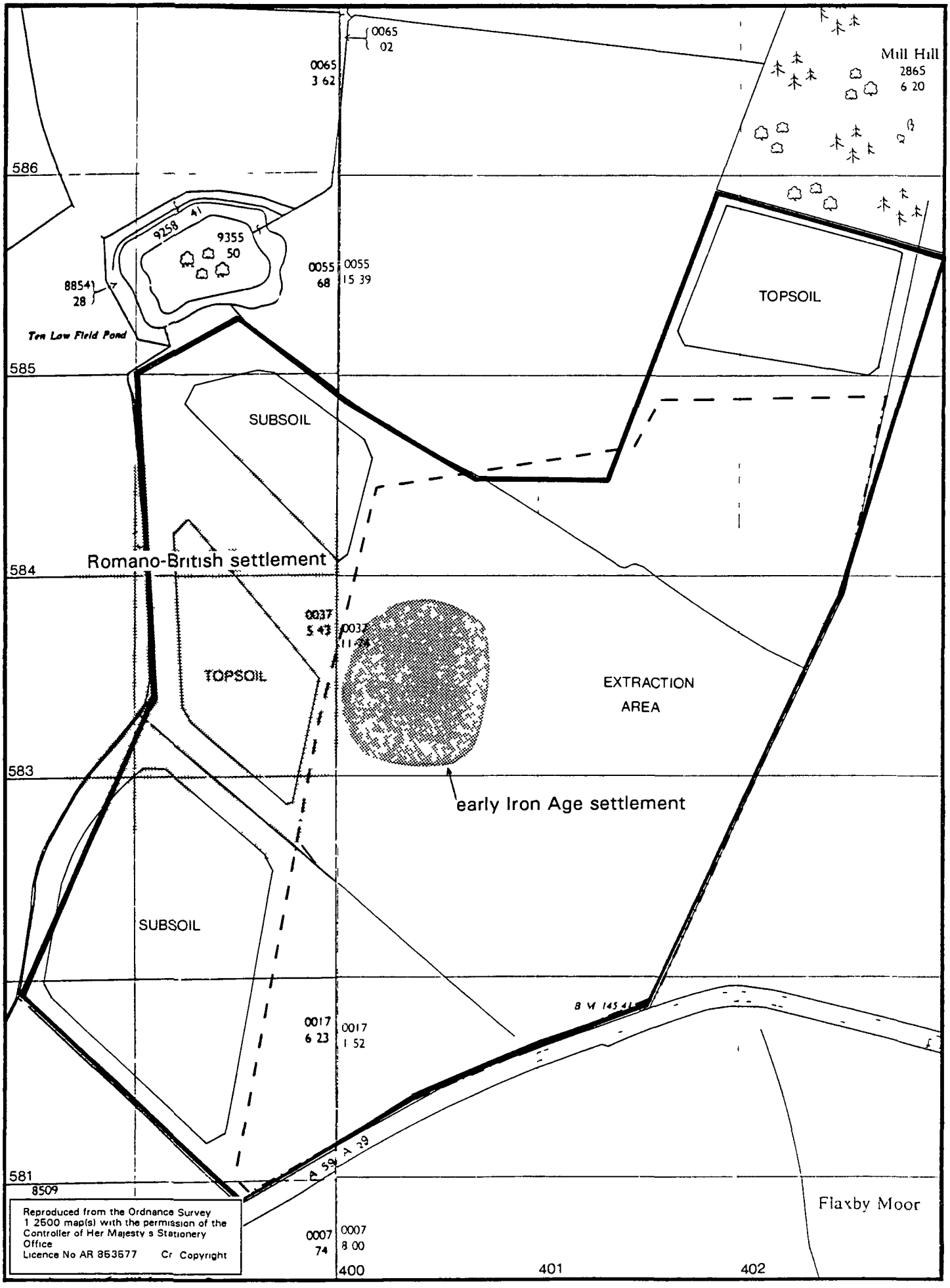

Fig 10 Approximate area of settlement sites

APPENDIX 1

Roman Pottery
by
J N Dore

Context 102

Two very small sherds
1 wall sherd gritty orange fabric Possible slight surface indications of glaze ?Medieval
1 wall sherd gritty orange fabric

Context 103 AB

1 base sherd gritty grey, with grey brown surface with orange margin below Possibly from the same vessel as 103 AC

Context 103 AC

1 rim sherd jar, orange gritty fabric with dark grey surface Later 3rd century AD

Context 205

1 wall sherd beaker, orange with black colour coat, trace of rouletted band Probably later 3rd or 4th century AD

Context 303

1 wall sherd beaker, pale orange, grey brown colour coat, band of diagonal lines en barbotine 3rd century AD
1 wall sherd probable BB1 fabric
1 wall sherd shell gritted fabric

Context 317

1 rim sherd bowl in BB1 Late 2nd or early 3rd century AD
1 rim sherd bowl, pale grey with darker grey core, bands of burnishing on surface
2 other grey ware wall sherds

Context 327

1 wall sherd samian Dr 18/31 or 31 (possibly transitional), ?Central Gaulish Mid 2nd century AD
1 wall sherd samian ?Dr 31R ?East Gaulish If so, then late 2nd century AD
1 wall sherd calcite gritted fabric, no formal diagnostic features present
TPQ is mid tolate 2nd century AD, assuming that the calcite gritted sherd is not late, which it need not necessarily be

Context 330 AA

1 wall sherd jar or possibly bowl, micaceous dark grey to black fabric Possibly handmade Appears Romano-British rather than "native"

Context 331 AB

1 rim sherd wide mouthed jar, mid grey, dark grey surface Late 3rd-4th century AD

Context 331 AC

1 rim sherd jar, pale grey, dark grey surface, micaceous, some voids which may have contained calcite Probably Huntcliff type (it has the hooked rim and lid seat groove of the type) Mid-late 4th century AD

Context 1303

1 wall sherd flagon, orange with grey core 2nd century AD

Trench 2 U/S

1 sherd with green glaze

Trench 4 U/S

1 base sherd jar, pale grey, lead grey surface

Trench 8

sherd #1 1 wall sherd, probably R-B
#2 1 wall sherd, calcite gritted fabric
#3 1 wall sherd, calcite gritted fabric
#4 1 wall sherd (or possibly rim sherd), possibly pre-Roman

Discussion

The start date of the assemblage is around the middle of the 2nd century AD and the latest material (1 sherd probable Huntcliff type, context 331 AC) dates to the middle or late 4th century AD Material of the 3rd century AD is also present The sample size is too small for meaningful comment on the intensity of occupation represented by the pottery Of possible note, is the range of the assemblage, with both samian and colour coated fabrics present This is conceivably wider than might be expected on what appears to be a settlement of no great status If further work is undertaken on the site, an examination of assemblages from comparable sites might prove interesting The rim sherds (contexts 103, 331, 317) should be drawn, and the drawings included in any publication

APPENDIX 2

Animal bones
by
Dr Sue Stallibrass

Animal bone preservation

The animal bone from the trial trenches tends to be well preserved This is mainly due to the fact that the archaeological deposits have been buried beneath calcareous colluvium and, therefore, have been protected from plough damage and from severe forms of leaching The periosteal surfaces of the bones are intact, and minor alterations such as fine knife marks associated with the removal of meat or hide are clearly visible on some of the bones Similarly, chewing marks are obvious on some of the bones, and the preservation is such that even subtle pathological alterations of the surfaces should be clearly visible where present (although none were noted in this small collection)

One Context (317) had some material recovered from a 5mm mesh sieve on site, and this material contams a well-preserved foetal/neonatal humerus of a pig, indicating that even the most fragile of animal bones has survived in good condition

Bones from a few contexts appear to be less well preserved (see notes on contexts, below) These bones tend to weigh less, as though some of their mineral content has been leached out They also tend to be more fragile their edges may crumble slightly and, being slightly brittle, they are susceptible to fragmentation (possibly due to the removal of some of their organic content)

Within any one context the preservation conditions are uniform, suggesting that there has not been any major mixing of material from different periods

Methods of recovery

Due to the necessity to undertake the trial trenching quickly, methods of recovery tended to be by mattock rather than by trowel, and many of the bones have consequently suffered recent fragmentation

Material was recovered by hand from 17 contexts, and bulk samples were taken from five contexts (three of which produced hand-recovered animal bone)

Methods of recording

Material from each bag of hand-recovered animal bones has been scanned for fragments identifiable to species level Sample measurements have been taken of a few bones to indicate the general size range represented (measurements have been taken following the methodology of Driesch, 1976) Factors calculated by Zalkin (1960) and Howard (1963) have been used to convert these measurements into estimates of withers (shoulder) heights and sex identifications Some of the ageing data have been noted, using Silver (1969) for estimates of ages based on tooth eruption and epiphysial fusion, whilst Grant's (1982) tooth wear stages have been noted to indicate relative ages for adult dentition

Quantities

Hand-recovery of animal bone on site produced three long-bone boxes of material, weighing nearly 9 kilograms

The total number of fragments recovered by hand from stratified contexts is 790 (see Table 1) This is probably an over-representation due to the presence of several fragments from pieces broken during excavation but is also likely to be an under-representation of the density of bone per context, since smaller pieces are likely to have been overlooked during excavation and disposed of with the spoil

The hand-recovered material

Species representation

Table 1 presents presence/absence data for identified species, and indicates (subjectively, in terms of numbers of fragments) the dominant species for each context For 11 of the 17 contexts the dominant species is cattle Cattle bones were identified m 12 of the contexts, sheep/goat and pig were both identified in eight contexts, and horse was identified in four contexts

The absolute and relative frequencies of cattle and horse bones may be over-emphasised due to fragmentation and to a bias against the recovery of smaller bones caused by the method of excavation Because of this problem, together with the small total number of fragments recovered, no attempt is made here to quantify numbers of species more accurately However, it was noted (subjectively) that bones of sheep seem to be rather sparse for a Romano-British site This is not just in comparison with bones of cattle Sheep bones often outnumber those of pig on a Romano-British site but here they appear to be approximately equal in number Since sheep and young pig bones are roughly similar in sizes, this ratio is not likely to have been biased by recovery methods or degrees of fragmentation

These four species normally form the bulk of any Romano-British rural site assemblage

Other species represented by occasional bones are dog, cat and human

The ?human bones (some fragments of a sacrum) recovered from an unstratified deposit in Trench 4 are not human but are probably from a horse However, a previously unrecognised human bone was identified from context 315 This bone is the proximal half of a young human tibia The proximal epiphysis is unfused, indicating that the person was less than 16-25 years old when he or she died A human bone specialist might be able to hazard a guess at the rough age of the person from the general size of the bone It is not from a very young child, but might be from an older child or adolescent The distal portion of the bone is missing, having been broken off at some time prior to excavation

Dog bones are quite often found in Romano-British deposits, but cat bones are usually rare or absent The preservation of the cat bone is similar to that of the rest of the material from context 103 (this is a buried topsoil with 3rd/4th Century AD pottery in its base, overlying a cobble layer in Trench 1)

No bones of wild mammals were identified Romano-British collections seldom contain many, if any, bones of wild mammals The least rare species represented tend to be red deer, roe deer and hare but these are often only found in large collections In contrast, Medieval collections often have

small numbers of wild mammal bones, together with a range of bird bones

No bird bones were found, not even of domestic chicken (fowl) This may be due to the small total number of bones plus the bias against small bone recovery Bones of larger species, such as goose, however, should have been noticed during excavation and are likely to have been genuinely absent from the excavated deposits

Overall, the range and distribution of identified species from the hand-recovered collection is unremarkable for a Romano-British collection, saving possibly for the cat bone, which might indicate a later rather than an earlier date

Material from sieved samples

Ten bucketful's of sediment from context 317 were wet sieved through 5mm mesh and produced a foetal/neonatal pig bone, adding a new age category to the material recovered by hand during excavation The sample also adds frog/toad to the species list Bones of frogs and/or toads are often found in archaeological deposits and are assumed to derive from animals that fell in adventitiously, rather than to represent any deliberate deposition by people

At the time of writing the residues from five bulk samples (processed for botanical remains by flotation machine at Durham University) are not dry enough to sort They do not appear to contain large quantities of animal bone If any further species are identified when the material becomes available (later this week), an addendum will be sent to attach to this report

A preliminary interpretation of the material

The material has the appearance of domestic refuse from food preparation and consumption All parts of the carcass are present, although the collection is too small to quantify the distribution of different skeletal elements There are no obvious deposits of any specialist debris (such as tannery or hornworking waste) nor of large-scale butchery refuse The size and morphology of the cattle bones are consistent with others from 'Celtic shorthorn' cattle, which were the dominant form of cattle in Britain in the Iron Age and Romano-British periods, and which contmued in use until the Middle Ages

The potential for future work

The good preservation of the bones together with their relative abundance means that the material is suitable for all standard methods of analysis of archaeological animal bones, provided that a suitably large collection is recovered Sieving has shown that very small and very young bones have survived, which means that a well-recovered collection should be a valid sample of the material deposited

In particular, a larger collection could be used for calculations and estimations of species ratios and population dynamics (age and sex ratios), and for studies of morphological and metrical attributes and the epidemiology of any pathological or congenital traits The results of these studies could then be used to suggest the aims, methods and standards of the husbandry of these animals whilst they were still alive, and to assess whether the site was importing animals, carcasses or joints of meat, producing meat for home consumption or producing meat and hides for export to an urban or military market

The importance of the material

The site has considerable regional importance for the study of animal bone remains dating to the Romano-British period Rural sites of this period have seldom been excavated in the north of England in recent years, and environmental data are extremely scarce Most have come from military or urban sites in the vicinity of Hadrian's Wall (eg Carlisle, Birdoswald and South Shields) or along major Roman roads (eg Catterick) How these sites were supplied with animal products is highly controversial (were they imported, requisitioned, bought, produced 'm house' ?) and the site of Allerton Grange has the potential to contribute significandy to the debate Its relationship to sites along Dere Street (currently the A1) is particularly in need of investigation Did the presence of the Roman military boost the rural economy or reduce the locals to penury? Even the simple question of 'Did people living at rural, military and urban sites eat meat from the same species?' cannot be addressed until rural sites such as Allerton Grange are analysed

Recommendations for further work

If excavation at Allerton Grange goes ahead, then major efforts should be made to recover large assemblages of animal bones from well stratified deposits Financial provision should be made for these collections to be studied in detail Some large contexts such as ditches, pits and wells, should have considerable quantities of sediment (eg 10-20 bucketfulls, = c 150-300 litres) sieved through mesh not greater than 5mm in diameter in order to (a) assess the bias against the recovery of smaller bones of the commoner species and (b) to recover the bones of small species such as fish, birds and small mammals The aims, methods and results of the study should be published and made available for comparison with material from urban and military sites in the region

Material by context

Context 103 Trench 1
Well preserved, but one or two bones have a greenish, gritty encrustation on them Many cattle longbones, several with profuse filleting knife marks on them Sizes of cattle bones all compatible with 'Celtic shorthorn' type i e the usual indigenous domestic cattle size that was standard throughout the Iron Age and the Romano-British period, and which continued into the medieval period in Britain One or two fragmentary cattle horncores, but none complete enough to indicate shape or size Some cattle bones heavily chewed

Very occasional Horse Tooth and extremely slender metapodial shaft (SD=23 1mm) from an equid the size of a small pony or a donkey
Very very occasional cat mandible
Very very occasional dog atlas vertebra
Very very occasional pig radius
Very very occasional sheep/goat pelvis

Context 104
Three fragments, all cattle A pelvis (acetabulum fused), a metatarsal and an M3 at stage 'f' (Grant 1982) i e youngish/middle aged adult

Context 201
Preservation light and eroded Horse proximal phalange Plus fragments of a longbone

Context 315
Good and uniform preservation Some chewing (by dogs) Modem breaks tend to obscure butchery evidence Mainly vertebrae and ribs of cattle and horse All of them mature i e all epiphyses fused, therefore animals over c 5 years of age at death Horse includes axis, cervical and thoracic vertebrae, plus skull fragment and an articulating set of first and second phalanges (the second phalange heavily chewed at its tip)
Occasional pig i e maxilla fragment with P4 in moderate wear (>2 years) plus pelvis unfused at acetabulum (< 1 year)
Very occasional sheep/goat i e one ?sheep/goat tibia fragment
Very very occasional ?dog i e ?ulna fragment, ?dog

Human proximal half - two thirds of proximally unfused right tibia ?older child/adolescent Person < 16-25 years old Shaft broken through distally in antiquity

Context 317
Mamly cattle-sized vertebrae, heavily chewed Lots of cattle bones, all 'Celtic shorthorn' size
Sample measurements
Cattle right metacarpal, distally fused Bp=56 45mm, SD=32 0mm, Bd=58 4mm, BFd=54 2mm Dd=32-5mm, GL=181mm Using Zalkin's (1960) factor of 6 1 for bones from animals of unknown sex, this gives an estimated withers height of 1 104m The slenderness indices (Howard 1963) are SD x 100/GL = 17 7 (castrate) and Bd x 1 00/GL = 32 3 (castrate)
Cattle right radius Proximally fused but distally unfused Bp=80 6mm BFp=73 7mm, Dp=42 4mm, SD=38 3mm
A cattle mandible has the last lower molar (M3) half up (young adult, just over 2 5 years of age)
Occasional sheep/goat bones eg sheep/goat tibia, distally fused Bd=23 3mm Dd=18 3mm SD=13 1
Occasional horse First phalange Fused
Occasional pig humerus

Context 317AA Material from ten bucketfulls wet sieved through 5mm mesh on site
Cattle skull and vertebrae fragments
One frog/toad longbone
One pig foetal/neonatal humerus as well preserved as the rest of the bones
One pig first phalange

Context 319
Cattle mandible fragments
Sheep/goat metatarsal ('normal' slender type typical of prehistoric and unimproved RB type)

Context 325
One fragment only A cattle-sized rib fragment encrusted in grit

Context 327
Pig mandible in fragments M3 visible, M2 in light/moderate wear (*c* 1 - 1 5 years old)

Context 329
Occasional gritty encrustations Mainly cattle bones including an M3 at stage '9' i e middle aged adult
Occasional pig M3 in slight wear (approximately 2 years of age) and an ulna fragment
Very occasional sheep/goat tibia fragment

Context 331 Trench 3
Mainly cattle Vertebrae, astragalus, first phalange plus ?calf tibia
Occasional sheep/goat tibia shaft
Occasional dog very well worn canine from elderly dog
Occasional pig tooth

Context 332
One fragment, sheep-sized, calcined

Context 403
Large cattle scapula GLP=73 1 mm, LG=60 8mm, SLC=61 4mm
Young cattle upper deciduous premolar
Occasional sheep/goat i e molar and mandible fragment

Context 607
Preservation bones leached and lightweight
Cattle metapodial fragments

Context 703 Trench 7
Preservation bones leached and a bit crumbly
Smashed cattle metapodials
Pig maxilla M3 in light wear, approximately two years of age, plus loose incisor M3 length=33 4mm, M2 length x width = 21 7 x 16 1 mm

Context 703 Trench 7
Preservation one bone, leached and crumbly a smashed cattle first phalange

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Table 1 Distribution of animal bone fragments recovered from the trenches

CONTEXT	WEIGHT (g)	NO OF FRAGMENTS	COMINANT SPECIES	IDENTIFIED SPECIES						COMMENTS
				Cattle (C)	Sheep/goat (S/G)	Pig (P)	Horse (H)	Dog (D)	Others	
102	326	63	cattle	C	SG	P				
*103	3670	225	cattle	C	SG	P	H	D	CAT	
104	184	3	cattle	C						
201	35	6	horse				H			leached preservation
303	23	5								cattle sized fragments
315	1185	172	cattle & horse	C	SG	P	H	??D	HUMAN	young human bbia (PUF)
317	2138	148	cattle	C	SG	P	H			
319	44	7	cattle & sheep	C	SG					
325	8	1								encrusted with grit
327	32	10	pig			P				
329	465	40	cattle	C	SG	P				occasional encrustations
*331	167	16	cattle	C	SG	P		D		
332	4	1	cattle							calcined
403	291	31	cattle	C	SG					
607	51	15	cattle	C						leached and lightweight
*703	137	40	cattle	C		P				fragile smashed C metapodials
712	6	7	cattle	C						1st phal leached crumbly & smashed
Total	8766	790								
in addition										
issidue from 5mm mesh s eua										
317	147	88	cattle	C		P			FROG/TOAD	includes foetal/neonatal piglet humerus
hand-picked from unstratified deposit in trench 4 (?human)										
unstratified	47	5	cattle	C						no human bones cattle sacrum frags

* bulk sample taken from context for botanical remains

APPENDIX 3

Environmental assessment
by
J P Huntley

Introduction
Bulk samples of soil were taken from selected features to evaluate the environmental potential of the site Following the completion of the report an additional three samples were submitted and these have been included as an addendum

Methodology
The bulk samples were dried and floated in the laboratory with both flots and residue retained upon 500,u mesh Biological material was sorted from flots and residues using magnifications of up to x50 as appropriate Identifications were made using comparative, modern reference material held in the Biological Laboratory, Department of Archaeology, University of Durham

Results and discussion
Table 1 presents the full botanical data The flots were all surprisingly small given the reasonably large volumes of soil processed and thus the data produced are simply reflecting background activities in the area There are no clear concentrations of plant remain suggesting areas of usage or discard The archaeological plant remains were all preserved through carbonisation, some modern seeds were present in some samples One sample contained partially charred material and thus modern contamination is thus a possibility

Table1 the botanical data

Latin name	English name	103 AA	305 AA	703 AB	814 AA
Cerealia indet	cereal grain	8	8		
hulled Hordeum	barley	10			
Triticum (hexaploid)	wheat	8	1		
Triticum spelta	spelt wheat			1	
Avena	oats	15			1
Triticum aestivum glume base	bread-wheat chaff		1		
Avena awn	oat awn		1		
culm node	straw		1		
>4mm Gramineae	large grasses	30			
Bromus sp	brome-grass	7			
Anthemis cotula	stinking mayweed	15			
Chenopodium undiff	fathen	2			
Polygonum persicaria	redshank	1		1	
Matricaria sp	mayweed	1			
<2mm Gramineae	small grasses	4		2	
Rumex obtusifolius-type	docken				1

Context **103 AA**

A small flot was produced and consisted of modem roots and charcoal fragments Some mollusc shells were present A moderate range of species was represented with oats, hulled barley and a hexaploid wheat the most common Large grasses were also common and some may well have been oats although preservation was not good Some considerable numbers of Anthemis cotula achenes were recorded

Context **305 AA**
A moderate sized flot was produced although large amounts of fine mineral material had floated over too There were large numbers of modem seeds but very little charcoal Indeterminable cereal grams and abraded barley grains were most common One of the barley grains was very large - >6mm long - and the rachis fragment was only partially burnt It is therefore suggested that there is modern contamination with this material representing, probably, stubble burning No weed seeds were recovered

Context **331 AD**
This produced a tiny flot with odd fragments of charcoal and a few modem Chenopodium seeds only

Context **703 AB**
This was a further tmy flot with a few fragments of charcoal One large spelt grain, one knotweed and two small grass caryopses were present giving little interpretable information

Context **814 AA**
Another tiny flot, this produced one oat grain and one dock seed

General conclusions and recommendations
Carbonised cereal grains and chaff, as well as a variety of weedy taxa, were preserved although preservation was not good m general Few of the grains were sufficiently well preserved for any measurements to be taken, for example The weeds represented were rather few and this, again, probably reflects the poor preservation In general the weeds indicate cultivation on heavier soils with a certain amount of nutrient enrichment There are no indications of grassland per se, other than the grass caryopses which could equally have come from plants growing as weeds, nor of wet ground taxa which are usually ubiquitous in archaeobotanical samples

As much as anything may be inferred from such a small dataset, it appears that barley, oats and wheat are present in more or less similar amounts For other sites in the north this generally implies a somewhat later date than Roman Likewise the presence of considerable numbers of stinking mayweed achenes However, it is becoming increasingly suggestive that these seeds may be indicative of later Roman material in this particular area, as may the oats be The existing database is heavily biased towards Roman military sites of the first and second centuries where barley and spelt are clearly dominant along with weeds characteristic of lighter, sandier soils It may be that cultivation of the heavier soils took place during the later Roman period thus allowing other weed assemblages to appear in the archaeobotanical record

At this stage there are no clear indications of disposal/use of cereals in the contexts sampled and little evidence that enough charcoal may be produced for radiocarbon dating, with preservation being poor as well the site is considered, botanically, to be of lower priority than the nearby Bayram Hill site where considerable numbers of well preserved grains, chaff fragments and weed seeds were found m a pit (Huntley, 1994) However, the Allerton Grange site has considerable

depths of deposit, with the possibility of waterlogged material in one area, and, should it become the borrow pit, a detailed but, in the first instance, a limited sampling strategy should be undertaken This should aim to retrieve material from a well dated sequence of contexts particularly pit and ditch fills, to investigate -

a) dominant cereals and weeds of the earlier Roman, or Iron-Age, periods for comparison with existing military data and
b) to investigate any changes in cereal use through time

Should clear evidence of settlement be confirmed then there may be the need l revise the sampling strategy in order to retrieve a wider range of information, such as spatial analysis of the site in terms of plant use This can only be done by continuing close communication between the excavators and environmentalists

Reference

Huntley, J P (1994) Bayram Hill, North Yorkshire BH93 The environmental samples 5 page archive report to Northern Archaeological Associates

Addendum

The three samples produced moderate to large amounts of well preserved cereal grains, with associated chaff and weeds, and this area of the site is clearly different from that to the south where there were no concentrations of carbonised material

Context **1010 AA**

30 litres (33kg) of the red-brown sandy sediment produced a moderate sized flot with some modern roots and mineral material remaining Charcoal fragments were common as were tiny fragments of burnt clay One fish vertebra was seen although no other bone was present The flot contained considerable numbers of bread wheat *(Triticum aestivum)*, *oats (Avena sp)*, hexaploid wheat *(Triticum (hexaploid)* and a little hulled barley (*Hordeum*) Floret/glume bases of bread wheat were noted but no other chaff Weed seeds were moderate in number although not varied in ecological requirements There were considerable numbers of stinking mayweed (*Anthemis cotula*) achenes and a few each of black bindweed (Polygonum convolvulus) docken (*Rumex sp*), nipplewort (*lapsana cummums*) and vetches/tares (< 4mm legume)

The breadwheat grains were reasonably well preserved and of a compact form It may well be that the hexaploid wheat grains, too, were bread wheat but the more elongated form which is not clearly distinct from those of spelt No spelt chaff however was seen The oats may have been cultivated or wild, but since no chaff was present this cannot be determined Given their size and numbers it is suggested that they are probably cultivated

By comparison with other sites in the north it seems unlikely that this material dates from the prehistoric period Bread wheat and oats being dominant suggests post-Roman or even Medieval although the traditional arable weeds of the Medieval period, corn cockle, cornflower, are absent here This may relate to local soils which are heavy clays since the traditional weeds prefer lighter sandier soils Stinking mayweed again is generally a later arrival although other A1 sites are producing it from apparently late-Roman contexts,

Full analysis of this sample is recommended if dating can be secured

Context 1107 AA

This sample was from an isolated pit at the top of the general sequence for the site As less bone was preserved in this area of the site pH measurements were taken on this sample The resultant range of 6 8 - 7 8 would not be acidic enough to preclude bone preservation and thus there seems to be a real, although unexplained, difference between this part of the site and the other The original sediment was a red-brown sandy silt with odd stones and flecks of charcoal Thirty five kg (c 18litres) were processed The sample produced a large flot containing reasonably sized chunks of roundwood charcoal These were from ring diffuse species such as hazel or birch Large numbers of bread wheat grains were recovered, again mostly of the compact form A small amount of oats and hulled barley were present and the same weeds as in context 1010 but with the addition of a radish pod fragment (*Raphanus raphamstrum*) and a seed of corn spurrey (*Spergula arvensis*) an indictor of sandy soils

A similar interpretation is offered in that the context is considered to be later, on botanical grounds, in date than the archaeology suggests

Context 1212AA

This sample (30 litres, 35 kg) of grey sticky clay with charcoal was taken from a buried soil overlying a cobbled surface and of uncertain date The moderate flot produced many fragments of charcoal and a few grains of hulled barley and oats No weed seeds or chaff were seen but the flot was examined wet and these may have been missed The context, in any case, is not as rich in plant remains as the other two Its cereal gram assemblage could be in keeping with a late prehistoric or Roman date - the evidence is too small to be conclusive

These samples confirm the need to take material from as wide a range of context types and spatial areas of a site as possible In the first group of samples the indications were of a background flora only, whereas here there are clear indications of cereal activity in the immediate vicinity This reiterates the recommendations that there must be close communication between the excavators and specialists

What is clear is that both areas of this site are producing botanical material suggestive of a later date than the archaeology The seed assemblages are atypical of the Roman period or late Iron-Age when spelt and barley were dominant It is not clear what the late Bronze Age to early Iron Age population used in this region nor indeed of the post-Roman to early Medieval Sites where these gaps potentially may be filled are of particular importance

For Flaxby a detailed dating programme has to be devised should full excavation proceed Otherwise the recommendations with respect to sampling and aims remains the same

APPENDIX 4

Prehistoric Pottery
by
T G Manby

The material is prehistoric, mostly plain handmade potsherds which are generally weathered and reduced in size by post-breakage soil movement

The significant pieces are -

Context **1003 AH**

Flat-topped rim of a necked coarse ware jar of large diameter Grey vesicular fabric, brown surface

Context **1003 BL**

Rim of a small jar or bowl, outcurving to rounded hp Hard stone tempered, buff exterior, dark grey interior, carbon layer over inside

Context **1003 AR**

Shoulder angle of a fine fabric bowl, broken off at junction Distinctive hard compact orange-buff, grey core, tooled surfaces, angular chert temper Fragments in same fabric from AA, AE, AI, AK, AM

Context **703** AA

Inturned rim with rounded hp, hard grey fine sand tempered fabric Other sherds representing a small jar
Also large body fragment of a bucket-shaped vessel Hard, orange to buff surfaces, grey core, much harsh sandstone temper Deep oblique ring junctions Exterior has hand moulded faceting

Several fabrics are represented within the assemblage in both coarse wares and surface finished finer wares Many have general brown-buff oxidised surfaces Sand, crushed stone and organic tempers are evident

Discussion

Allerton Grange, on the western side of the Vale of York, is in an area that has very few prehistoric assemblages that can be used for comparison In its shapes and fabrics the Allerton Grange site is unlike the late 1st millenium BC assemblages from Boroughbridge, Brough St Giles and Dalton Parlours In fabric character it resembles the 8th century BC Grafton material but finger-tip decoration is absent An earlier 1st millenium BC date is suggested by the plain rim forms and the surface treatment Such a dating is also likely for the surviving material from the nearby Flaxby site (Challis and Harding 1975,BAR 20 p5 fig 8) Broad comparisons can also be made with the 7-6th century BC pit groups from Kilham and Burton Agnes in eastern Yorkshire