

*BIRMINGHAM UNIVERSITY
FIELD ARCHAEOLOGY UNIT*

**Excavations at
Whitemoor Haye Quarry,
Alrewas, Staffordshire
1997-1998**

**A Post-Excavation Assessment
and Updated Project Design**

B.U.F.A.U.



Birmingham University Field Archaeology Unit
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**Excavations at Whitemoor Haye Quarry, Alrewas, Staffordshire,
1997-1998
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by

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WHITEMOOR HAYE QUARRY, ALREWAS, STAFFORDSHIRE: THE 1997/1998 EXCAVATIONS

An Interim Statement of Results, Assessment and Updated Project Design

1.0 INTRODUCTION

This report outlines the results of the excavation of seven areas at Whitemoor Haye Quarry, Alrewas, Staffordshire (NGR SK180130, centre), undertaken by Birmingham University Field Archaeology Unit (BUFAU) between September 1997 and July 1998. It also includes a description of the results of a watching brief carried out on topsoil stripping in the quarry concession during this period and up to the end of October 1998. The work was commissioned by Lafarge Redlands Aggregates in advance of gravel extraction, and was carried out in accordance with specifications prepared by Phoenix Consulting. The excavation and watching brief followed on from a programme of extensive geophysical survey and trial trenching on the site.

The report also includes discussion of the results of salvage recording undertaken by BUFAU in October 1997 on the site of a multiple ring ditch at the nearby National Memorial Arboretum (SK 1854 1460). This work is included because the results are to be integrated into the monograph on the investigations.

Following a summary of the archaeological results, the report provides a background to the archaeology of the site, including a summary of previous archaeological work; an outline of the research aims and objectives and methodology; narrative descriptions of the results of the excavations in each of seven areas and the watching brief; a discussion of the results; an assessment and an updated project design.

The format of the report broadly follows the recommendations of English Heritage's *Management of Archaeological Projects* (MAP 2).

2.0 SUMMARY OF ARCHAEOLOGICAL RESULTS

Seven areas (A, B, C, F, R, S, and T; Fig 5) of the quarry concession at Whitemoor Haye were excavated and subsequently monitored during topsoil stripping prior to gravel extraction. Four of these areas (A, B, C and F) lie within the bounds of a scheduled ancient monument (SAM. 200), and the remaining three lie outside.

Area A (Fig. 6) contained a large rectangular enclosure enclosing four ring gullies, all dated to the Middle Iron Age, although the direct relationship between the structures and the enclosure ditch is unclear. There were also a number of large pits cut into the corners of the enclosure ditch, which contained some waterlogged deposits. Further ditches ran across and into the enclosure, which contained Romano-British pottery sherds.

Area B (Fig. 9) also contained four ring gullies surrounded by a large rectangular enclosure ditch (although in this case half of the enclosure lay beyond the limits of excavation), all dated to the Iron Age. Two ditches of Romano-British date cut across the western side of the enclosure and continued to the north and south of the excavation area. These ditches defined a droveway, also observed and sampled in other areas.

Area C (Fig. 10) contained two ring gullies, surrounded by a curvilinear enclosure ditch, dated to the Middle to Late Iron Age. A series of straight ditches cutting this area are probably of Medieval or Post-Medieval date.

There were few datable artefacts recovered from Area F (Fig. 11), which made it difficult to characterise the three major ditches observed, although the cropmark plot would suggest that they were stretches of a triple-ditched feature at the southern end of the Romano-British droveway.

Area R (Fig. 12) produced few features of archaeological interest, although significantly two oval pits produced Early Bronze Age pottery, in ~~once~~ case numerous sherds from a single Beaker vessel suggesting the pit to be a Beaker inhumation, although there was no evidence of any human remains. Lane

Excavations in Area S (Fig. 13) revealed a two-row pit alignment of Late Bronze Age/Early Iron age date, along with a cluster of post holes of similar date. A series of ditches of Romano-British date were also sampled. These appear to have formed a rectangular enclosure, according to the cropmark plot, although the returns of these ditches were not located within the excavation areas. There was no structural evidence associated with this enclosure.

Within Area T (Fig. 14) there was a similar double pit alignment to that in Area S, although no datable artefacts were recovered from these pits. The Romano-British droveway continued through this area.

The watching brief identified further lengths of the droveway ditches and the continuation of the pit alignment from Area T. A trapezoidal enclosure was also recorded, along with a semi-circular ditched feature.

The salvage recording undertaken at the site of a multiple ring ditch at the nearby National Memorial Arboretum included the recovery of a partial Beaker from a satellite feature of the monument.

Overall, the investigations provide evidence of the evolution of the landscape from the Late Neolithic/Early Bronze Age through to the Romano-British period. A Neolithic/Early Bronze Age ritual landscape, represented by ring ditches and probable Beaker burials, is succeeded by the establishment of major territorial divisions in the Late Bronze Age, represented by two-row pit alignments. A series of farmstead enclosures

containing round houses, of varying morphology, follows in the Early to Middle Iron Age, with further enclosures, field systems and a drove way established in the Romano-British period.

3.0 ARCHAEOLOGICAL BACKGROUND

3.1 Location and Geology (see Figs.1 & 2)

The site is located in southeast Staffordshire, c.3.0km northeast of Lichfield and c.1.5 km southeast of the village of Alrewas. Its borders are defined by the River Tame in the east and south, the A513 in the north, and in the west by the road running south from the A513, past Whitemoor Haye farm and up to Sittles farm. The topography of the landscape within the site is undulating, varying in height from 51.0m to 53.5m AOD and, prior to extraction, was an area of arable farming.

Recent alluvial deposits, up to 7.5 m in thickness, overlie Pleistocene gravels. There are two river terraces, with fossil evidence suggesting a pre-Devensian date for the upper terrace. These gravels generally overlie Triassic Mercian Mudstone, sandstones and Bunter Beds. Beyond the extent of the alluvium, the soils tend to be slightly stony, sandy loams and are classified as gleyic brown earths (Jones 1979). Most soils in the study area are well suited to modern arable farming, although areas adjacent to the river are susceptible to seasonal flooding.

3.2 Archaeology of the Region

The ancient landscape at Whitemoor Haye forms part of a broader pattern of ancient settlement in the major river valleys of southeast Staffordshire. A useful regional 'study area', with Whitemoor Haye at its heart, may be defined to comprise the valley of the Tame, from Tamworth north to its confluence with the Trent, the Upper Trent valley from Great Heywood to Burton, and the Blithe valley from the Blithfield reservoir to the confluence with the Trent (Fig. 2). The gravel and alluvial deposits within this area cover approximately 105 square kilometres; at about 180 hectares the area designated for quarrying at Whitemoor Haye represents a significant sample of this landscape, approaching 2%.

Information on past settlement and land use in the study area has been mainly obtained from aerial photographic surveys. This work, largely carried out by independent researchers, most notably Jim Pickering, has produced a considerable amount of information regarding the distribution of complex cropmark sites. However, following a recent survey of similar sites in the middle Trent valley, Whimster (1989, 6) concluded that 'to this day the date and significance of the vast majority of newly discovered cropmark sites remains unknown' and acknowledged that further elucidation of the cropmark data could only be achieved through complementary structured survey and excavation. It has been suggested by English Heritage that in the West Midlands overall

'there is little knowledge of settlement patterns, social structure and economic relations before the medieval period outside the towns' (1991, 16), a comment which is very apposite for southeast Staffordshire. However, it is possible to provide an outline settlement sequence for the study area on the basis of the limited work that has been carried out to date.

The earliest archaeological finds recorded in the vicinity are a Lower Palaeolithic cleaver from the lower terrace of the Tame and an Acheulian quartzite handaxe from Shenstone (Shotton 1973; Cane and Cane 1986). Evidence of Mesolithic settlement in the area is largely restricted to chance finds, of which the most significant is a pebble 'macehead' which has been tentatively dated to this period (Hodder 1982). However, excavation of a cave/rock shelter at Bower Farm produced evidence of a lithic scatter, which has been interpreted as indicative of a seasonal hunting camp (Hilton 1979, Cane & Cane 1986).

Material dated to the Neolithic period is also rare and is largely represented by occasional finds of polished flint and stone axes (Gunstone 1964; Vine 1982). Several cropmarks in the Trent valley have been interpreted as possible causewayed enclosures, including sites at Alrewas and Mavesyn Ridware, and two cursus monuments have been identified at Catholme, just to the north of Whitemoor Haye (Hodder 1982; Palmer 1976; Jones 1992). The latter features are particularly interesting as they are in close association with a series of cropmarks which together constitute a 'monument complex', significantly located at the confluence of the Trent and Tame (Jones 1992). These cropmarks include a large post-built henge, and a circular enclosure with radiating lines of pits. Excavated evidence of activity in this period is very rare. At present it is impossible to determine whether the gully in the northern part of the Whitemoor Haye quarry area (Tempus Reparatum, Trench B) which contained Late Neolithic Peterborough ware, or the enclosure (SMR 1374) on a gravel 'island' in the alluvial floodplain in the south of the area, which likewise produced a small amount of Peterborough ware, represent 'domestic' or 'ritual' activity. However, excavation in advance of quarrying at a Roman site at Fisherwick, just to the south of Whitemoor Haye, uncovered a series of features which may have formed part of a house, and which was in association with Late Neolithic pottery and a small number of flints (Miles 1969).

Bronze Age domestic occupation is equally problematic. Until recently, this had largely been represented by groups of postholes revealed during the excavation of ring ditches, and assumed to represent the remains of structures pre-dating the barrows, e.g. Willowbrook Farm and Fatholme (S.C.C. 1991, Losco-Bradley 1984). A more substantial discovery resulted from the excavation of a series of cropmarks in advance of quarrying at Fisherwick (~~Smith 1974~~). Here, most of the features identified from aerial photographic survey were proven to be of geological origin. However, a number of smaller features were interpreted as part of a house and were associated with radiocarbon determinations ranging between 1170 ± 140 and 850 ± 140 uncal BC.

Smith '76
in bibliography

Cropmarks of ring ditches are frequently presumed to be of Bronze Age date, representing the ploughed-out remains of round barrows (Gunstone 1965, Vine 1982).

They are distributed across the study area and are particularly frequent in the Tame valley where they attain a density of 1:0.87 sq. km (Hodder 1982). However, there is a clear tendency for these features to cluster around the confluence of the Tame and Trent where densities may exceed 4:1 sq. km (Vine 1982). Although there is excavated evidence to support the Bronze Age date generally assigned to these features, caution is necessary. An important new dimension has been added by the excavation of two circular burial mounds surrounded by ring ditches at Tucklesholme Farm, Barton-under-Needwood, in the Trent valley to the northeast of Whitemoor Haye (A. Martin, pers. comm.). One barrow produced no evidence of burial while the other contained an unurned central cremation and was associated with an adjacent flat cremation cemetery comprising 14 burials, five in urns of the Middle to Late Bronze Age Deverel Rimbury tradition. The demonstrated variation within the ring-ditch class of site suggests that they may have had a variety of forms and functions, and that we should be wary of interpreting them simply as funerary monuments by analogy with other areas (Bradley 1992; Ferris 1992; Hughes 1991).

- ② There are no hillforts within the study area. Consequently Iron Age settlement in the area is generally assumed to be represented by the extensive cropmark complexes revealed through aerial photography. However, as already stressed, the majority of these complexes are in fact undated (Whimster 1989, 6). Where modern excavation has taken place these sites frequently turn out to be palimpsests. The most extensive excavation to date was carried out by Christopher Smith (1979) in advance of quarrying at Fisherwick, to the south of Whitemoor Haye. This site is particularly important. Smith excavated a series of settlement features, including enclosures containing round houses, in association with a field system covering 10 hectares. The site was inhabited between the 3rd century BC and the 1st century AD. Although bone was poorly preserved, pollen, seeds, insects and wood were preserved, allowing a reasonably detailed reconstruction of the local environment. This suggests that the area had been cleared by the time of the occupation, and that both pastoral and arable activities were being carried out. The preserved wooden artefacts from Fisherwick, which included oak planks, hazelwood pegs and an ash 'toggle', are particularly evocative. As Fulford (1992a, 26) has pointed out, it is on such waterlogged sites that 'we are as near as we are ever likely to be to the peasantry of late Iron Age and early Roman Britain'.

The area probably came under Roman rule at an early stage of the occupation. The nearest Roman urban centre, *Letocetum* (Wall), was occupied during the Claudian period, possibly by the XIVth Legion prior to their move to Wroxeter (Webster 1975). The later settlement's defences, which cover 2.4 hectares, are not well dated, although Webster (1975, 78) has suggested that the settlement was a late 'burgus' under Constantius Chlorus. Although there has been a suggestion that Wall may have been a late Roman civitas capital, there is no evidence that the civilian settlement served as a major market or service centre following its early military occupation (Crickmore 1984, 47). On present evidence the study area would appear to fall between the Cornovii and the Corieltauvi, with the border possibly following the line of Rykniel Street (Webster 1975; Todd 1991). There is little evidence that Roman occupation created a major impact on

the lifestyles of the native population. Villas are not numerous within the region of the Corieltauvi or Cornovii, and only one possible unpublished villa site is recorded within the study area near Blaken Hall (SMR04094). However, some caution should be urged, as Fulford (1992a, 36) has noted that the apparent lack of villas is a general gravel phenomenon and that this may result from 'vernacular building styles' and the use of different types of building material.

Excavated data, including the Romano-British settlement excavated by Miles (1969) at Fisherwick and the enclosure excavated in 1996 by Gifford and Partners at Tucklesholme Farm, suggest that habitation sites of the period were not very different to those of the late Iron Age. Smith (1980) has suggested a settlement density of 1:2.3 sq. km. for the Tame valley, but we should be cautious about such figures given the paucity of detailed data. Likewise, Smith's (1980, 11) suggestion that there was a decline in settlement density during the late Roman period remains unproven.

The archaeology of the area in the post-Roman period is far from clear, despite the fact that Tamworth develops into the recorded capital of Mercia during the 7th century. Lichfield, the successor of *Letocetum* (Wall), may have been the centre for the early Bishopric of Diuma, and written records suggest that the Trent valley was densely settled by the 8th century (Gelling 1992, 148; Losco-Bradley and Wheeler 1984, 101). A number of 6th-century cemeteries and individual burials have been located, including those at Wychnor, Stapenhill (Burton-on-Trent) and Tucklesholme (Gelling 1992, 28; Losco-Bradley and Wheeler 1984, 105; Hughes 1991). At Tucklesholme a possible cremation burial has recently been dated to AD 409-440.

The discovery and excavation of an extensive early 6th-century Anglo-Saxon settlement at Catholme, containing 15 structures in its earliest phase, provides an invaluable insight into settlement in the area and its relationship to the earlier Roman period (Losco-Bradley and Wheeler 1984, 104). However, Gelling (1992, 28) has commented that 'it is only by virtue of lying adjacent Derbyshire that Staffordshire scrapes into the category of counties which have pagan Anglo-Saxon remains'. Yet it should be noted that the large settlement at Catholme was located on the basis of three hut-shaped cropmarks, only one of which actually proved to be an archaeological feature. This suggests that further discoveries of this nature may be possible.

During the later Medieval period it is likely that Tamworth declined because of its lack of a strategic position, although Lichfield, a centre for pilgrimages to the tomb of St Chad, was established as a new town during the mid-12th century (Gelling 1992). Within the study area, Smith's (1980) analysis of the landscape around Fisherwick indicates the progress of enclosure in the creation of the modern landscape. Excavation of rural medieval sites within the area has been very rare. The only record within the survey area is the limited evaluation of a possible deserted medieval village at Hamstall Ridware (Meeson 1991).

3.3 Geophysical Survey (Fig. 3)

There were two periods of geophysical survey at Whitemoor Haye: one in 1992, prior to the BUFAU evaluations, and one in 1995, in advance of the 1995 *Tempus Reparatum* trenching.

The 1992 gradiometer survey was carried out by Geophysical Surveys of Bradford and 13 areas were investigated (A to M), in which very 'few anomalies of definite archaeological interest were identified' (BUFAU 1992, 3) and the cropmarks were not located, which at that point suggested that they did not exist or had a low magnetic susceptibility. Those anomalies that did show up were tested with trial trenches.

The 1995 gradiometer survey, carried out by the Bartlett-Clarke Consultancy, investigated five areas (G1 to G5), and produced results suggesting a degree of correspondence with the cropmark plot. The lack of response from some cropmark features was possibly due to different fills, and there was little suggestion of areas of concentrated settlement (*Tempus Reparatum* 1995, Appendix 6, 1-6). There was also a electromagnetic and resistivity survey conducted by British Geological Survey, primarily designed to identify the topography of the underlying gravel, but it did provide information relating to at least two north-south aligned palaeochannels (*ibid.*, 4.42)

The results, in general, guided the evaluative trial trenching subsequently carried out, but excavation indicated that the low level of results from the surveys was not a true reflection of the level of archaeology present.

3.4 1992 BUFAU Evaluation (Fig. 4)

The 1992 evaluation took the form of the excavation of 29 trial trenches (Fig. 4, numbered. 1-8 & 10-30) aimed to target potential archaeological features identified by the aerial photographic assessment and geophysical survey (BUFAU 1992, 2). The trenches within the scheduled area highlighted a circular feature, with associated Bronze Age pottery (Tr. 31), a V-shaped profile enclosure ditch (Tr. 32), and the north-south driveway ditch (Tr. 33). There were also trenches (Trs. 4, 18 & 20) that identified an east-west, triple-ditch system at the southern terminus of the north-south driveway. Further south, a double-ditched east-west feature (Tr. 23) was identified together with a rectangular enclosure (Tr. 22), although nothing to correspond with the circular cropmark (Tr. 26). To the east of these features was a straight-sided enclosure of Romano-British date (Tr. 27). At the southernmost point of the concession area were three rectilinear enclosures, of which Trench 28 identified a ditch containing sherds from a possible Early Bronze Age urn, while Trench 30 failed to identify the enclosure there.

Those trenches located to the west of the scheduled area failed to identify the features plotted from the aerial photographic assessment, while Trenches 2 & 17, in the north of the evaluation area, identified the double-ditched driveway and the presence of a

rectilinear enclosure to the east of the droveway (Tr.1), but there was no sign of the ring ditch in Trench 3.

This evaluation provided an initial interpretation of the settlement enclosures spread out along the north-south droveway, and some limited dating evidence for three of the enclosures. In Trench 27, the recovery of hobnails and some bone fragments from a feature with of Romano-British date pointed to the possibility of the presence of burials within this enclosure.

3.5 1995 Tempus Reparatum Evaluation (Fig. 4)

Tempus Reparatum excavated 17 trial trenches in 1995, of which 11 were random trenches designed to examine the character of archaeological deposits within the floodplain, and the remainder were designed to examine the northern area of the gravel terrace not included in the 1992 evaluations. Only 10 of these trenches yielded features of an archaeological nature.

On the northern gravel terrace, Trench A found evidence for the double-ditched droveway, which also appeared in Trench 17 of the BUFAU evaluation, and Trench B identified one of two ring ditches. This trench produced Middle-Late Neolithic pottery sherds, which may have been associated with the ring ditch. Those trenches in the floodplain identified a few archaeological features that may have been connected with the prehistoric field system, but generally established a lower level of past activity in this area than identified on the gravel terrace.

4.0 AIMS AND OBJECTIVES

The aims and objectives of the current programme of excavations are detailed in the *Specifications* document (Phoenix Consulting 1997, pp. 11-15). The following is a re-iteration of the relevant areas of national priority, as defined by English Heritage, where the excavations were thought to offer some contribution (ibid., pg. 15, *Sec. 3.4.1*):

- 1.The clarification of the typology and date of ritual monuments and their possible relation with other contemporary sites.
- 2.The date and possible function of enclosure sites and their relationship with field features (field boundaries and trackways).
- 3.The origin and evolution of field systems over time.
- 4.The determination of water-management structures.
- 5.The relationship between the natural landscape and its human transformation over time.

5.0 METHODOLOGY

All excavated areas were surveyed using a total station EDM and the initial overburden was excavated by a machine fitted with a 1.6m-wide toothless ditching bucket. The 0.30m depth of topsoil was machined off separately from any underlying subsoil, which was also removed to identify archaeological features, and stored separately from the topsoil. After the removal of overburden, initial plans of the excavated areas were established with the use of the EDM total station, with hand cleaning of specific areas to clarify the presence and nature of identified features, particularly within the confines of any apparent structures. Sample excavation of these features adhered to the sampling strategy laid down in Appendix 1 of the *Specifications* (Phoenix Consulting 1997), although it was often difficult to establish dates for the features both prior to, and after, excavation.

The hand excavation of these features was carried out by professional staff. Recording was undertaken using *pro-forma* record cards supplemented by scale section and plan drawings, photographs and levels where appropriate. Soil, radiocarbon and luminescence samples were also taken where appropriate. All artefacts were kept and processed at the Field Unit prior to examination by appropriate specialists.

A final post-excavation plan of all features was drawn for all areas and overall post-excavation photographs were taken, with the use of a hydraulic tower where access and safety allowed.

The watching brief was carried out on a frequent basis during the phase 1 and phase 2 stripping of the topsoil and subsoil; this monitoring was intensified in the area of the scheduled monument. Features were selected for sampling on the basis of their apparent uniqueness in comparison to features already excavated within the designated areas. Previously sampled features received minimal further sampling in order to identify any changes in form or to supplement the available dating evidence. A plan was generated using a total station FastMap surveying system to locate the features and their position in relation to those already excavated. All feature and context recording was undertaken according to the format outlined above and the archive has collated along with the main excavation archive, currently located at the Field Archaeology Unit.

Areas A, B, C & S, within the phase 2 and 3 topsoil stripping scheduled for 1999, remain as excavated; Areas F and R have been reinstated to allow continued cultivation, and Area T has been stripped, awaiting quarrying.

6.0 AREA NARRATIVES (Fig. 5)

6.1 Scheduled Ancient Monument 200

6.1.1 Area A (Fig. 6)

Dimensions: 60m x 70m (4,200m²)

A large, 57m by 45m, rectangular enclosure was uncovered in this area, within which there were three circular structures and one partial structure; these appear to be dated to the Middle Iron Age. Further ditches ran across, and into, the enclosure, which relate to the Romano-British driveway identified in other areas (B & T) and on the cropmark plot.

There was little evidence to establish the relationship between the four structures, although the stratigraphic relationship of an east-west gully (F409) with Structures 1 and 3 would indicate that Structure 1 was later than Structure 3, while Structures 3 and 4 contained pottery sherds of Middle Iron Age date.

Structure 3 comprised a 12.0m diameter ring gully (F421) with an entrance on the east side; the western side was cut by a later feature (F415). The ring gully had a U-shaped profile and was between 0.20 and 0.40m deep. The terminals were rounded and the southern one had a 0.40m diameter post-hole (F422) cut into it. The terminals and post-hole fill contained pottery sherds of Middle Iron Age date, of which the 20 sherds from the southern terminal belonged to one vessel. Internally, there was a number of possible post/stake-holes (F424-5, F431-2), all circular or sub-circular in shape, ranging in diameter from 0.30 to 0.40m, round bottomed and between 0.12 and 0.15m deep. A centrally-located, sub-circular feature (F433), 0.28m deep, contained silt-sand deposits rich in charcoal, which may indicate that it was the remains of an oven or hearth. A small linear gully (F409), 0.50m wide and 0.30m deep with vertical sides and a flat base, cut the ring gully and appeared to terminate within the confines of Structure 3; it continued eastwards, where it was cut by the ring ditch of Structure 1.

The ring ditch of Structure 1 (F413) had an outer diameter of c.15.0m, with a gap on the eastern side. The ditch had a U-shaped profile and varied in depth from 0.18m to 0.50m; it was generally deeper at the rounded terminals than on the western and southern sides. Internally, there was a number of circular post-holes: F401 and F408 spanned the entranceway and, centrally located, there was a further cluster of post-holes (F400, F402-4), centred around F402. The silt-sand fill of this feature contained a central patch of burnt clay, which may be indicative of an oven or hearth lining. To the north, there was another cluster of post-holes (F406, F410-11 & F441). These post-holes were generally circular, between 0.30m and 0.90m in diameter and round or flat-bottomed, with a depth of between 0.10m and 0.30m. The linear gully (F409) noted above was also identified within Structure 1, where it appeared to terminate near the southern terminal of the ring gully, though it was truncated by this later feature.

Structure 2 was much more insubstantial, with only part of the defining ditch (F414) surviving. This was U-shaped in profile, with a depth of between 0.06m to 0.20m and, if complete, a diameter of approximately 7.0m. The southern terminal appeared to be intact and there was a rounded end to this semi-circular ditch on the western side. Three irregular features (F416, F417 & F418) were recorded in the vicinity of Structure 2, but their shape and the deposits contained within them were more consistent with geological activity.

There was more of the 10.0m diameter ring gully (F435) surviving from Structure 4, and although there was a gap in the southern side the northern terminal appeared to have been plough damaged. The ring gully had a U-shaped profile and was between 0.15m and 0.30m in depth. In the southern terminal and western side sections there was evidence of an earlier ditch (F 438) of similar shape and width, but slightly deeper. However, as it was not evident in all the sections, it would not appear to have been a complete ditch. In the southern terminal of the ring gully (F435) there were 80 sherds from a single storage jar dating to the same period as the sherds from Structure 3. There were two internal post-holes - one (F439) contained a large percentage of small burnt stones and the other (F440) was located approximately centrally within the structure.

The enclosure which contained these four structures appeared to have been defined in three distinct stages: an original ditch (F486), a re-cut of this ditch (F468), and finally the excavation of four large pits (F467, F487, F445 and F456) located at a terminal and on the corners of the enclosure.

The original enclosure ditch (F486) was V-shaped, with a depth of between 1.0m and 1.2m, and had silted up with a number of different sand and gravel deposits. The bottom fill of the ditch was a dark grey silty clay which appeared to have been subjected to periods of water-logging. In the southwest corner this ditch had cut what appeared to be an earlier, bowl-shaped pit (F472; Fig. 8). The extent of this feature was not fully examined due to the high level of ground water within it. The re-cut (F468) had a shallower, U-shaped profile and in sections appeared to have had a flat bottom with straight sides. It had a similar width and depth, between 0.44m and 0.77m, and was filled with similar silt-sand and gravel deposits, with some slumping of the natural sand-gravel in these sections. The dating evidence for both the original ditch the re-cut was confined to a few sherds of Early Iron Age pottery. The surviving northern terminal of the enclosure ditch, which defined an entrance in its eastern side, appeared to belong to the re-cut phase and was rounded, cutting a small gully (F452) which ran eastwards under the edge of excavation. The southern terminal of the enclosure ditch had been destroyed by the later digging of one of the large pits (F445).

F445 was the last re-cut of a series of five pits (Fig.7). The first of these (F473) appeared to be bowl-shaped and contained two waterlogged fills. It was cut by another bowl-shaped pit (F474). In turn, this had been cut by further pit (F478), which was cut by another (F475). The final re-cut of this pit (F445) was shallow and had silted up with a

lower fill of grey/brown silt-sand (4082) and an upper fill of orange/brown silt-sand (4081). Several sherds of Middle Iron Age pottery were recovered from both these fills. The lower fill also contained a sherd of greyware, dated to the mid-late 2nd century A.D, which may have been intrusive. To the southeast of this large pit was a smaller, circular feature (F448), which at 0.10m deep was possibly a truncated pit that could have been associated either with the large pit or the enclosure ditch as it contained pottery of Iron Age date.

The bowl-shaped pit (F456; Fig. 8) cut into the southwest corner of the enclosure ditch was filled with three layers of silt-sand (4114, 4123 & 4115). The primary fill (4114) contained a sherd which may be provisionally dated from the Early to Middle Iron Age. Cut into the western half of the pit was another bowl-shaped pit (F470) which, in turn, was cut by another pit (F469), of similar shape and filled with a grey/brown silt-sand deposit (4111) containing a sherd of greyware dated to the mid-late 2nd century A.D and possibly intrusive. The bowl-shaped pit (F456) cut both the enclosure ditch and a short length of U-shaped ditch (F457), 0.30m deep and filled with re-deposited natural sand and gravel (4128). This may have been a deliberate backfilling of this segment of the enclosure ditch in order to create an entrance to the north of the open pit.

Two bowl-shaped pits (F467 and F487) were located on the northeast corner of the enclosure ditch. They were approximately 5.0m apart and appeared to have diameters of 3.5m (F487) and 4.0m (F467) and a depth in excess of 0.60m, although they were not fully excavated.

The last group of features in this area was a series of ditches possibly associated with the Romano-British field system and droveway. A U-shaped ditch (F442) ran north-south across the enclosure and continued south beyond the excavated area. It had been re-cut by a shallower ditch (F415), 0.35m deep and of similar profile. Both ditches were filled with similar silt-sand deposits. The re-cut cut a smaller linear channel (F446), of possible geological origin, and the western side of Structure 3. A sherd of Severn Valley ware of mid-late 2nd-century A.D. date was recovered from the re-cut.

In the northeast corner of the site there was another ditch of Romano-British date (F443), aligned east west. It appeared to terminate in the enclosure ditch, had a V-shaped profile and was filled with an orange/brown silt-sand and gravel deposit containing sherds of greyware, reduced Severn Valley ware and Oxidised ware, all dated to the mid-late 2nd century.

In the southeast corner were two more Romano-British ditches (F447 and F449) which were east-west aligned and continued beyond the eastern edge of the excavated area. What appeared to be the earlier of the two (F447) had to the east a U-shaped profile, but this became wider and shallower as it approached the enclosure ditch. The later ditch (F449), with a shallow U-shaped profile, cut both the earlier ditch and the enclosure ditch. Both ditches were filled with silt-sand deposits, and the later ditch contained sherds of Black Burnished ware and Oxidised ware.

6.1.2 Area B (Fig. 9)

Dimensions: 60m x 100m (6,000m²)

This area contained four structures, similar to those found in Areas A and C, surrounded by a rectangular enclosure ditch with an entrance in the south-west corner, all dating to the Iron Age. Cutting across the enclosure were two ditches associated with the Romano-British driveway, observed in other areas and from the cropmark plot. There were some later features that can be associated with the Medieval and Post-Medieval landscape.

Structure 1 had a ring ditch defining its outer limit, which had a diameter approaching 13.0m, with an entrance in the east side 3.6m wide. The original cut of this ditch (F217) had steep sides and a flat bottom, although there was a more pronounced V-shape profile at the terminal sections. The original ditch had been re-defined with a shallower, U-shaped ditch cut (F221), which was filled with similar silty sand deposits and contained several undiagnostic pottery sherds of Iron Age date, although two sherds recovered when cleaning over this structure have a Middle Iron Age date. There were several internal features identified in Trench 31 of the 1992 evaluation, including a possible hearth (F78), which contained a pottery sherd dated to the Iron Age, a deep pit (F109) and several shallower pits (F110, F111 & F112) or post-holes (F113, F114 & F115) (BUFAU 1992, Appendix III). The subsequent area excavation identified two further inter-cutting stake-holes (F230 and F231). To the northwest of Structure 1 was a bowl-shaped pit (F229) which contained a sandy deposit (2086) rich in burnt and heat cracked stones; this may have been associated with either Structure 1 or the surrounding enclosure ditch.

Structure 2 lay 3.0m directly south of the first structure and has a very similar form to it, with a circular ditch (F222) of 9.5m diameter and U-shaped profile. There was a 3.6m wide entrance in the eastern side and the fills of the ditch were silt sands. Internally there were several possible post/stake-holes. Two of these (F226 and F228) were located either side of the entrance, while another (F224) was located proximately centrally. Five metres to the east of Structure 2 was a truncated pit, only 0.13m deep, which may have been associated with it.

There were two inter-cutting structures in the southwest corner of Area B, Structures 3 and 4, of which the former was the earliest. Both of these structures were similar to Structures 1 and 2, circular with an entrance to the east (the entrance to Structure 3 was assumed to lie outside the excavated area). The ditch (F234) of Structure 3 had a diameter of 11.5m, with a shallow U-shaped profile and a depth of between 0.20 and 0.30m. It was filled with a brown silt-sand deposit which produced an Iron Age pottery sherd. There was no evidence of internal features, which may be due to a plough furrow which ran through the middle of the structure.

Structure 4 was 13.0m in diameter and was defined by a deeper U-shaped ditch (F236), averaging 0.40m in depth. This ditch was cut by a sub-circular gully (F237), which

seemed to be a smaller version of the original ditch, with an entrance on the eastern side and a much shallower and narrower U-shaped profile. It contained a pottery sherd dated to the Iron Age. Located at the southern terminal of Structure 4 was a bowl-shaped pit (F239), possibly associated with the later ring gully (F237) as it cut the southern terminal of the earlier ditch. Internally, there was a cluster of post/stake-holes (F243-247, F251-2 & F254), located approximately centrally, the deepest of which (F254) was 0.35m deep, although they were mostly 0.25m deep. They were all circular and ranged in diameter from 0.25m (F246) to 0.66m (F244) and were filled with a silty-sand and gravel deposit. It was difficult to determine any pattern to these features, especially with the lack of dating evidence.

To the west of Structures 3 and 4 was a semi-circular ditch (F253) which may have been the ploughed-out remains of fifth structure of similar construction. It had a U-shaped profile, 0.25m deep.

Only half of the enclosure which surrounded these structures was excavated, the other half lying in the adjoining unexcavated area. The enclosure had an entrance in the northwest corner. Its northern and western sides were defined by a ditch (F262) with steep sides, a flat bottom and a depth c.0.40m, although it was a lot deeper, 0.90m, at the western edge of excavation, where it cut what appeared to be an earlier ditch (F259) of a very similar profile. There was also a narrow ditch (F211) which appeared to join the enclosure ditch and was cut by a later driveway ditch (F202). It had a V-shaped profile and was 0.50m deep. The southern extent of the enclosure was defined by a similar ditch (F238), which was more U-shaped. South of the northern terminal of the enclosure ditch was a truncated circular pit (F270), 0.80m in diameter and 0.10m deep.

The next period of activity in this area was characterised by the two ditches that demarcate the north-south driveway. On the western side was a U-shaped ditch (F200), 0.40m deep, cut on its eastern side by another U-shaped ditch (F201), 0.50m in depth. This was filled with a grey/brown silt-sand and gravel deposit containing a number of mid-late 2nd-century Roman pottery sherds. The other side of the driveway was delineated by a similar ditch (F202), approximately 10.0m east of F201. In the north of this area there was the remainder of a small V-shaped ditch (F203) which ran parallel to the eastern ditch. The northern sections of the eastern ditch were 0.40m deep, with steep sides and a flat bottom, whereas the southern sections had a slightly deeper V-shaped profile. In the southwest corner of Area B was a bowl-shaped pit (F215), 1.0m deep, cut into the eastern driveway ditch. It is noticeable that the eastern ditch of the driveway changes its course to run parallel with the earlier enclosure ditch (F262). There was evidence of an earlier ditch (F207) that ran in the same direction as the enclosure ditch's western side for approximately 40.0m, and appeared to have a flat bottomed profile, 0.20m deep, with steep sides. This, however, was cut by eastern ditch of the driveway (F202) along the majority of its length.

The earlier ditch (F207) was joined at right angles by two east-west aligned ditches (F216 and F223), the latter, of U-shaped profile and 0.35m deep, cutting across Structure 1 and

turning north until it terminated just before the enclosure ditch. The more southerly (F216), with a V-shaped profile between 0.40 and 0.70m deep, continued eastwards, where it appeared to turn into a double ditched feature, being accompanied by a shallow gully (F218).

The remainder of the features identified in this area appear to be associated with the Post-Medieval agricultural landscape.

6.1.3 Area C (Fig.10)

Dimensions: 45m x 40m (1,800m²)

This area contained two enclosed prehistoric circular structures and a series of straight ditches, possibly associated with the Medieval and Post-Medieval landscape.

Structure 2 comprised a ring gully (F306) c.9.0m diameter, with an entrance on the eastern side. In the interior of this structure were two post-holes (F312 and F313), either side of the entrance, just behind the terminals, and a sub-circular feature (F310) with a possible channel leading into it. There was also an area of disturbed soil just to the west of the southern ditch terminal, which appeared to be root disturbance. The original, circular ditch (F306) was between 0.30 and 0.45m deep with a sharp, V-shaped profile. This ditch had been re-cut in one section with a U-shaped ditch of 0.25m depth. The ditch had been finally redefined in the form of a shallow U-shaped ditch (F304) that had a sharper V-shaped profile in two sections. The fill of the northern terminal of this final re-cut contained four sherds of Middle Iron Age pottery. The terminals were rounded, although the northern terminal was slightly bulbous.

Structure 1 comprised a ring gully (F300) 13.0m diameter, again with an entrance on the eastern side. No internal features could be identified. The ring gully had a V-shaped profile, 0.50 to 0.60m deep, and was predominantly filled with a brown sandy-silt deposit. Its terminals were rounded. The southern terminal contained sherds of Iron Age date, which were too undiagnostic to date more precisely. This original ditch had been re-cut twice, although not visibly at the terminals. The earlier re-cut (F301) was U-shaped with an average depth of 0.40m, and the final re-cut (F302) had a similar profile but was not as deep. In some sections, the cut for the final re-cut had obscured the that for the earlier one.

Structure 1 was surrounded by a number of curvilinear ditches that appeared to form an enclosure around it. The U-shaped ditch varied from 0.15m to 0.40m in depth and was made up of F316 and F319 on the eastern side of the enclosure, with a 7.0m wide entrance in this side and slightly bulbous northern and southern terminals. The northern side of the enclosure was defined by F307, which cut across the ditch of Structure 2 and turned north, where the end of the ditch was obscured by the cut for a modern land-drain. The western limit of the enclosure (F309) appeared to be the earliest ditch, as it was cut

by F307, and may have continued to form the southern extent of the enclosure, which was presumed to be outside the excavated area.

Area A was then cut by a series of straight ditches, the earliest of which (F317) was located in the southeast corner. It had an east-west alignment with a U-shaped profile and cut across one of the enclosure ditches (F319) before terminating at the point where it was cut by a north-south aligned ditch (F315). This latter ditch had an almost identical profile and fill and ran right across the excavated area, again cutting one of the enclosure ditches (F316). This north-south linear ditch was in turn cut by a 1.0m-wide east-west aligned ditch (F318 & F314). The north-south ditch (F315) produced two sherds of Post Medieval pottery, and these linear ditches may all form part of the Post-Medieval landscape, although if the pottery from F315 was intrusive then it is possible that they were part of the Romano-British field system; the available evidence is inconclusive.

6.1.4 Area F (Fig. 11)

Dimensions: 30m x 40m (1,200m²)

The excavation of this area produced few datable artefacts, which hampers interpretation. There were three large roughly parallel ditches, a smaller ditch and a number of pit-like and post-hole features.

Two of the ditches (F800 and F802) had an east-west parallel alignment and terminated within the area. There was a further length of ditch (F806), just beyond the eastern terminal of the more northerly of the two ditches, which was only 0.26m deep with a shallow U-shaped profile and flat bottom. F800 and F802 had similar profiles, but were deeper than F806. The northern most of the two larger ditches (F802) had evidence of a shallower U-shaped re-cut (F807), 0.22m deep. A continuous ditch (F801) was aligned south-west to north-east across the north-western corner of the area. It had a U-shaped profile with a flat bottom, and was between 0.50 and 0.60m deep. Located east-west across the centre of this area was a gully (F803) which was later than F802, and had a V-shaped profile with a depth of 0.33m. The similarity of its dark brown sandy silt fill to the topsoil may suggest that this was a modern agricultural feature.

Immediately south of the terminal of F800 were two possible pits (F813 and F805). The latter had a circular shape, with shallow sloping sides to a flat bottom, at a depth of 0.28m. The fills of this feature had a high sand content, which may lend itself to a geological interpretation rather than an archaeological one. Northeast of this pit was a larger, ovoid, flat-bottomed pit (F813), which was 0.69m deep. It had received three re-cuts (F812, F811 & F810) of similar shape, but of lessening depths.

There was another possible pit (F808) immediately north of F806. This had a bowl shape and was 0.52m in depth. A further feature (F816), in the southeast corner of Area F may have been a truncated, shallow, flat bottomed, circular pit. A possible isolated post-hole (F818) lay in the southwest corner of the area.

In the northeastern corner of Area F was a large oval pit (F822) which cut an irregular-shaped feature (F821), which may have been tree root disturbance or geological activity that pre-dated the pit. The silted up layers of the pit were cut by a smaller pit (F823) of similar shape. Both these pits were cut by a small linear feature (F824) aligned south-west to north-east, with shallow sloping sides to a depth of 0.20m, which could only be seen in a 4.0m length and may have been caused by modern agricultural disturbance. To the south and south-east of the pit were two possible shallow, post-holes (F820 & F819), both of which may have been associated with the pits.

6.2 Outside SAM 200

6.2.1 Area R (Fig.12)

Dimensions: 50m x 28m (1,400m²)

This area lay just north of a trackway and the impact of modern agriculture was visible in the form of plough furrows and their headlands, and several features that appear to have been caused by root or animal disturbance.

In the south of the area was a small gully aligned east-west (F600/F601) that had a small break of less than 1.0m in the middle of it. With a depth of 0.12m and width of 0.30m, it seemed likely that this was the remainder of a former fence line or drainage channel. There were several irregular features that appear to have been associated with this gully, both on its northern and southern sides, of which only two (F624 & F605) gave any indication that they may have been archaeological in nature. The former (F624) had a bowl shape and was 0.27m deep. The only indication that it may have been archaeological was a higher percentage of charcoal flecking in its brown sandy fill (6033) than in the other features. The latter (F605) was a small circular feature, with a pointed bottom, 0.20m deep, which may have been a stake-hole.

A second linear feature (F608) ran east-west under the southern limit of excavation of Area R and may have been a field boundary, which would explain the root disturbance to its north. A small gully (F622) was cut in the north-west corner of the area. Aligned approximately south-west to north-east and 0.16m deep, it contained an orange sandy gravel deposit (6031) that was difficult to distinguish from the surrounding natural sand and gravel.

The most convincing group of archaeological features was centrally located in this area, and while some doubt may be cast upon the archaeological nature of some of these features, two of them produced sherds of prehistoric pottery, including in one case numerous sherds of a single Beaker-style vessel datable to the Early Bronze Age. The feature containing this pottery (F612) was oval in shape, 2.00m long by 0.90m wide, and had concave sides, gently sloping to a flat bottom, 0.26m deep. There was no evidence of

staining to indicate the former presence of a body, although the shape of this feature and the position of the pot in the northwestern sector of the feature may indicate that this was a Beaker inhumation. The other feature (F615), containing abraded Iron Age pottery, had similar dimensions with a similar shape and profile. Both were filled with charcoal-flecked silt-sands. A number of other features (F616/617, F623, F625 & F626) cut in the same vicinity as these pits may have been archaeological in nature, but their irregular shape and the nature of their fill suggested root disturbance as a more plausible interpretation. A further possible pit (F628) was located in this group of features. It had a rectangular shape and vertical sides with possible post-holes (F629 & F630) either side of it.

6.2.2 Area S (Fig. 13)

Dimensions: 70m x 20m (1,400m²)

This area contained two-row pit alignment and a group of post-holes, both of which included features containing prehistoric pottery. Three linear ditches appeared to form a rectangular enclosure of Romano-British date, according to the cropmark plot, and two parallel, north-south ditches appear to relate to the driveway identified elsewhere. Finally, a number of Post-Medieval plough furrows with a north-northeast to south-southwest alignment were recorded.

The pit alignment had an approximate north-west to south-east alignment and consisted of two lines of staggered, circular pits. These were all bowl-shaped and varied in depth from 0.40m to 0.60m. With two exceptions (F520 & F525) all the pits sampled had been re-cut by a later, shallower pit and were filled with a variety of silts, many of them containing a notable percentage of burnt and heat-cracked stones, especially F526/548. This pit contained pottery sherds which belonged to at least three vessels of Late Bronze Age/Early Iron Age date, while F509 (the original cut of F508) contained sherds of a jar which may date to the Late Bronze Age/Early Iron Age or Middle Iron Age. F519 and F534 contained sherds datable within the Iron Age.

In the middle of the area, towards the northern edge of excavation, was a group of small post-holes, circular in shape with steep sides and flat bottoms, ranging in diameter from 0.30m to 0.60m and in depth from 0.14m to 0.55m. The deepest of these post-holes (F537) was filled with a charcoal-flecked, brown silt-sand deposit (5045), which contained over 100 sherds of pottery, probably of Late Bronze Age/Early Iron Age date. There was no definite structure to the position of these post-holes, although it is feasible that F537, F544, F546 and F547 formed a rectangular structure of some description.

Two small ditches lay on the same alignment as the pits, perpendicular to the direction of both the Romano-British ditches and the Post-Medieval plough furrows. Both ditches (F515 and F521) had a U-shaped profile, 0.60m wide and 0.25m deep, and the latter was certainly later than the re-cuts of the pit alignment and appeared to be cut by F503, the

Romano-British ditch, although F515 could be associated with Medieval or Post-Medieval agricultural activity.

The westernmost of the Romano-British ditches (F503) had a similar alignment to the Post-Medieval plough furrows, as did all the ditches from this period. It had a V-shaped profile, was 0.9m deep and filled with three layers of silting in the northern section (F503.01) and two in the southern section (F503.02). Samian and a sherd of greyware were recovered from the middle, grey silty-sand deposit (5007) of F503.01. A smaller ditch (F506) to the east had a steeper U-shaped profile in its northern section (F506.01) than in its southern section (F506.02), although the depth remained constant at 0.30m. It was filled with a brown silty sand, with a small percentage of stones, with the fill (5034) of F506.02 containing forty-seven sherds of reduced Severn Valley and Black burnished wares of mid-late 2nd-century date. Parallel to this ditch was a third (F507) similar to the westernmost ditch (F503) and between 0.68m and 0.86m deep. This original ditch had been re-cut by a shallower U-shaped ditch (F505) and was filled with three different layers of brown silt-sand (5012, 5013 & 5014), which produced 31 sherds of Roman pottery, amongst which were Samian, greywares, Severn Valley wares and three sherds of Mancetter-Hartshill mortaria.

An access route excavated to allow the machines passage in and out of Area S during its initial strip, without disturbing the surrounding crop, revealed three parallel north-south ditches (not illustrated). The easternmost of these (F500) was 3.9m wide and 0.3m deep, with a shallow U-shaped profile. The second (F501) had a much steeper V-shaped profile. Measuring 1.6m wide and 0.48m deep, it had been filled with two distinct silt deposits. The westernmost ditch (F502) was much wider, but had a very shallow profile and appeared to be the bottom of a Medieval/post-Medieval plough furrow. The two other ditches (F500 and F501) seem to relate to the continuation of the droveway ditches identified in Areas B and T, and during the watching brief.

6.23 Area T (Fig.14)

Dimensions: 60m x 60m (3,600m²)

This area was located just north of the northern extent of the scheduled monument, and here the archaeology can be divided into three periods of activity, based upon stratigraphic relationships. The earliest activity, the pit alignment, was followed by the creation of the droveway, and then, lastly, by Post-Medieval agricultural activity.

The pit alignment consisted of two parallel rows of circular pits running approximately east-west across the area, although there did appear to be some interruption of the sequence of pits where they were cut by the droveway ditches. Although the pits ran parallel to each other, they were slightly staggered, in that the southern pits tended to be located in the gaps between the northern pits. The pits were similar in nature on both the east and west sides of the droveway, with a bowl shape and usually two episodes of silting backfill, with an average diameter of 1.40m and maximum depth of 0.50 to 0.60m.

There was only one pit (F131) which had any evidence of a post-hole within, in the form of a small, circular re-cut in the base of the pit. On the west side of the droveway only a limited number of the northern pits were sampled, as they had been disturbed by a modern land-drain.

Whilst the pits do appear to respect the droveway, at least when seen in plan, there were three pits (F115, F111 and F128) which were cut by the droveway ditches, F105, F109 and F110 respectively. There also appeared to be two inter-cutting pits in the central area of the droveway, of which the earlier pit (F133) had very similar characteristics to the other pits in the alignment. The pit (F132) cutting it had a more ovoid shape, with steep sides to a depth of 0.90m, which might suggest that this particular feature is a small section of ditch more closely associated with the droveway ditches than the pit alignment. Although there were clear stratigraphic relationships in the pit sections, there were no artefacts recovered and, therefore, little chance of any associated dating to clarify the associations.

The next phase of activity in this area is represented by the droveway ditches and some possibly associated features, although without any dating evidence one cannot gauge the period of time between the use of the pit alignment and the droveway, or if there was a degree of contemporaneity. The western side of the droveway was delineated by a V-shaped ditch (F118), 0.40m deep, in a north-south alignment. This had been cut by a later, U-shaped ditch (F105), with a shallower, 0.30m deep, profile, but following the same course as the original ditch. The only stratified artefacts from the whole of Area T came from a section of the original ditch (F118), from a brown silt-sand (1041). Three sherds of Samian pottery dating to the mid to late- 2nd-century A.D. were recovered. A small V-shaped linear feature (F119) ran parallel with the ditch re-cut (F105) in the northeastern corner of the area, and disappeared in F105.04. This may indicate that this ditch was earlier than both the re-cut (F105) and the original ditch (F118).

On the eastern side of the droveway was a double ditch marking its edge. The earlier of these ditches appeared to be the westernmost (F109), although it was difficult to differentiate between the very similar fills of both ditches. This ditch had a U-shaped profile, with a general depth of 0.50m. The later ditch (F110) had a slightly steeper profile, but was otherwise similar to the earlier one.

A number of irregular-shaped features lay within the interior of the droveway (F114, F121, F123, F124 & 1084) and may have been associated with some repair to the route, especially as the grey sandy-gravel fill of these features was unique to the interior of these ditches.

The Post-Medieval activity was characterised by two roughly parallel ditches (F112 and F113) with a north-west to south-east alignment but slightly converging towards the southeast corner of Area T.

6.3 The Watching Brief

The watching brief identified the continuation of the Romano-British droveway sampled in Areas A, B, S and T, as well as the continuation of the double pit alignment in Area T. An enclosure of indeterminate age was also recorded along with a semi-circular ditched feature. A number of individual features were also sampled.

The enclosure had a trapezoidal shape with the southern ditch running into the limit of the Phase 2 topsoil stripping. The ditch which defined this enclosure (F910) was generally U-shaped with a depth of between 0.30 and 0.88m, and was filled with a grey-brown sandy silt. The variation in the recorded depth of this feature was due to the degree of truncation inflicted by the machining. A possible entrance was identified in the western side, defined either end by the rounded southern and northern terminals of the enclosure ditch. No internal archaeological features were recorded and, with no artefacts recovered from the ditch itself, it was difficult to date and characterise this feature.

To the east of the enclosure was an irregular semi-circular ditched feature (F913), U-shaped in profile and generally not more than 0.30m deep, although the western terminal was 0.55m deep. A gully (F917) cut across this, although the square cut and humic fill of the former suggested that it was of modern agricultural origin. A few pottery sherds of Iron Age date were recovered from an excavated section of the ditched feature (F913.02), but there was insufficient evidence to determine the function of this feature, although it did not appear to be a plough-damaged hut circle.

The droveway ditches were further sampled along their lengths as they were uncovered and identified in the course of the topsoil stripping. Generally, this confirmed the nature of the ditches, as excavated in Areas B and T, as V-shaped and between 0.50 and 0.75m deep and generally filled with a silty-sand deposit. In places there was evidence for the existence of a double ditch on the western side, although this had been truncated in the stripping process.

The double pit alignment, identified in Area T, continued across the site as originally identified from the aerial photographs, and could be seen continuing up to the eastern extent of the phase 2 stripping, with the likelihood that it continued into the adjoining, unstripped field, parallel to the alignment identified in Area S. Where the pits were excavated, and had not been truncated, they were bowl shaped with an approximate depth of 0.50m and width of between 0.90 and 1.40m. They had been filled with two distinct episodes of silting.

Of the unassociated features identified during the topsoil stripping of this phase, the most notable was a 2.5m-diameter bowl-shaped pit (F903) of 0.90m depth and filled with three layers of silt-sands. The lower fill (9006) of this pit contained sherds from two Late Bronze Age/Early Iron Age vessels and the upper fill (9005) sherds from at least five Iron Age vessels. A small post-hole (F904) was found directly southeast of this feature, but otherwise there were no associated structures or enclosures in its vicinity.

6.4 National Memorial Arboretum site (Fig. 16)

by Gwilym Hughes

Salvage recording was undertaken by Birmingham University Field Archaeology Unit in October 1997 on the site of a scheduled ancient monument (SAM 199; SK 1854 1460) at the National Memorial Arboretum near Alrewas. The fieldwork involved the recording and reinstatement of a test pit accidentally dug into part of the monument by engineers working on behalf of the Arboretum.

The monument is positioned on the west bank of the River Tame near to its confluence with the River Trent. Cropmark evidence indicates the presence of a large multiple ring ditch consisting of a number of concentric circular features which lay on a raised gravel terrace. The test pit was excavated in the southwestern corner of the site and disturbed part of a Beaker vessel. This was recovered by staff from Staffordshire County Council in November 1996. The sieving of the soil displaced from the trench produced several additional sherds of prehistoric pottery.

The prehistoric pottery that was recovered during the excavation and from the sieved soil must have originated from a small discrete pit, presumably a satellite feature, which had been completely destroyed during the excavation of the test pit. The recovery of only half of the vessel suggests that the beaker was incomplete before its deposition in the pit, and probably represents part of a special deposit buried close to a ritual site. There was no evidence that it accompanied a burial.

7.0 ASSESSMENT: QUANTIFICATION OF RECORDS AND FINDS

7.1 Site records

Table 1: 1997 Excavations

Area	A	B	C	T	Sub-Total
Context Cards	209	168	80	95	552
Feature Cards	120	96	54	50	320
Drawings: Plans	6	16	2	8	32
Sections	80	75	32	42	229
Photographs: Black & White					
Colour Slide					
Colour Print					
Assemblage Summaries	30	14	5	4	53
Survey Record Sheets	16	11	8	15	50
Environmental Samples	33	12	3		48

Table 2: 1998 Excavations

Area	F	R	S	Sub-Total	Total
Context Cards	63	39	43	145	697
Feature Cards	31	34	49	114	434
Drawings: Plans	3	3	5	11	43
Sections	22	27	32	81	310
Photographs: Black & White					1077
Colour Slide					1185
Colour Print					92
Assemblage Summaries	2	6	10	18	71
Survey Record Sheets	6	6	11	23	73
Environmental Samples		2	3	5	53

7.2 Finds

Table 3: 1997 Excavations

Area	A	B	C	T	Sub-Total
Tile/Ceramic	4				4
Fired Clay/Daub	31	3			34
Briquetage	29		4		33
Prehistoric Pottery	124	8	4		136
Roman Pot.	27	89	32	4	152
Med./Post-Med. Pot.	2	5	3	1	11
Iron Objects		1			1
Slag	3				3
Copper/Alloy					
Bottle/Glass				8	8
Quern Stone	1				1
Flint	1				1
Animal Bone	26	3			29
Wood	22				22
Charcoal	8	25			33

Table 4: 1998 Excavations

Area	F	R	S	Sub-Total	Total
Tile/Ceramic					4
Fired Clay/Daub			1	1	35
Briquetage					33
Prehistoric Pottery		140	240	380	516
Roman Pot.	1		86	87	239
Med./Post-Med. Pot.		1	3	4	15
Iron Objects		5		5	6
Slag					3
Copper/Alloy		7		7	7
Bottle/Glass					8
Quern Stone					1
Flint					1
Animal Bone			2	2	31
Wood					22
Charcoal	18	8	1	27	60

8.0 ASSESSMENT: SPECIALIST REPORTS

8.1 Prehistoric Pottery by Ann Woodward

A total of 551 items were recovered. Of these, 139 were sherds of Beaker pottery, mainly from a single vessel, of Late Neolithic/Early Bronze Age date (c.2000-1600BC). The majority however, 412 items (75%), were sherds from vessels ranging in date from the Late Bronze Age through to the Middle Iron Age (c.800-100BC). Although much of the material cannot be dated closely, the occurrence of 12 rims and 9 base angles, together with certain other diagnostic sherds, means that two main phases of activity - in the Late Bronze Age/Early Iron Age and Middle Iron Age respectively - can be isolated. Pottery occurred within the various Areas excavated as follows:

Table 5: Prehistoric pottery/fired clay totals

Area	Beaker	LBA/EIA/MIA	fired clay	briquetage
A	1	123	31	29
B		8	3	
C		4		4
R	138	2		
S		240	1	
Watching		35		
Brief				
Totals	139	412	35	33

All but a few sherds were recovered from stratified contexts. Many large, and often conjoining, sherds are present and most of the material is fresh and unabraded. Pottery derives from a wide variety of context types: ditch fills, hut gullies, postholes and pits, and provides important dating evidence for the site sequence. A few large context assemblages (up to 115 sherds in size) were found in ditch/gully terminals, a large posthole, and a pit in one of the pit alignments.

8.1.1 Beaker

The fragmented remains of part of a vessel were found in pit F612, Area R. The surface is very abraded. The vessel, which possesses a simple rim and an extremely slack profile, is decorated with a very uneven scheme of horizontal lines and chevrons executed in a mixture of tooth-comb and incised techniques. It belongs to the Late Style defined by Case.

8.1.2 Late Bronze Age/Early Iron Age

Diagnostic Late Bronze Age/Early Iron Age forms, including rims from ovoid jars, expanded bases and wall sherds with finger-smear surfaces, were recovered from three pits (F509, F519, F526) belonging to the pit alignment in Area S, and from a large posthole (F537) to the north of that alignment. Rim forms and fabric types of Early Iron Age were found in the filling of the enclosure ditch in Site A (F468) and from the pit (F456) at its southwestern corner.

8.1.3 Middle Iron Age

Rim fragments from necked globular jars of fine and coarse types, and wall sherds which were burnished or lightly scored, are characteristic of the Middle Iron Age period in this region. Diagnostic finds of this kind were found in the circular hut gullies within Areas A (Structures 3 and 4), B (Structure 1) and C (Structure 2). Similar pottery was also found in pit F445, which recut the southern terminal of the rectangular enclosure ditch in Area A. This pit also contained a significant group of 9 pieces of briquetage. Twenty more fragments came from the southern ditch in Area A, and a further four fragments were found in Area C, Structure 2.

8.1.4 Fabric

The fabrics are mainly sandy, but some vessels are vesicular. Various rock fragments, including quartzite, calcareous temper and ironstone inclusions are also represented.

8.1.5 Statement of potential

The excavations have produced a small but well-provenanced assemblage of prehistoric pottery. Full analysis, according to the PCRG *Guidelines*, is recommended.

Evidence from the pottery will contribute to the relative dating and phasing of features and structures on the site and also will provide data to inform the interpretation of vessel size and function, site status, production and exchange, and styles of deposition.

The Beaker will be compared with the Late Style Beaker from the National Arboretum site and with other late Beakers from the river gravels of the midland counties. The Late Bronze Age/Early Iron Age pottery is a very rare occurrence in the west midlands - the important vessels represented at Whitemoor Haye will be discussed in the light of similar deposits from the Norton Lenchwick Bypass (Woodward forthcoming) and Wasperton (Woodward in prep), both in Warwickshire. The Middle Iron Age pottery, which forms a varied and informative group, will be compared with similar domestic assemblages from Fisherwick (Staffs), Wasperton (Warks), Willington and Foxcovert Farm (Derbys) and from various sites in Leicestershire and Northamptonshire. The occurrence of briquetage is notable, and the form and fabric of these items will form a particular subject for study.

8.2 Roman Pottery by Annette Hancocks

8.2.1 Factual summary

A total of 193 sherds of Romano-British pottery was recovered from the current phase of excavation. Of this material three sherds were unstratified and recovered from a cleaning layer (2166) within Area B (Table 6). The remaining 98% of the pottery derived from well stratified deposits, mainly from the driveway ditches in Area B and the enclosure ditches in Area S. Some 30 diagnostic rims were recovered which with further analysis will hopefully refine the spot dating results which date the assemblage to the mid-late 2nd century AD. No residual Roman material was recognised, although two intrusive sherds were observed from the upper fill of pit F903 which contained predominantly prehistoric pottery of Iron Age date. All the material was recovered by hand excavation, with the exception of some material from context 2002 which was exposed by machine. The range and variety of material assessed comprised mainly local and regional produced coarsewares, with ten sherds of samian of Hadrianic/early Antonine date. All the material was in a good, unabraded condition, although the samian was well worn. No long term storage problems are envisaged. The material will benefit from comparative analysis with local and regional published sites such as Wall, Staffs.

Table 6: Quantification of Roman pottery

Area	Context	Feature	Context type	Fabric	Total
A	4057	F415	Ditch	Severn Valley ware	1
	4080	F443	Ditch	Grey ware	1
	4081	F445	Pit	Greyware	1
	4093	F449	Ditch	BB1 and Oxidized ware (P)	4
	4111	F455	Pit	Greyware	1
	4207	F443.04	Ditch	Reduced Severn Valley ware and OW (P)	10
B	2002	F201.2	Ditch	Severn Valley ware, OW (P), BB1 and GW	55
	2003	F200	Ditch	BB1, GW and Severn Valley mortarium	7
	2002/2003	F200	Ditch	BB1, SV ware, Samian, OW (P) and GW	16
	2006	F200.06	Ditch	White ware	7
	2166	Cleaning	Structure 4	SV ware, Manc-Hartshill Mortarium and GW	3
F	8024	F808	Pit	Samian (burnt)	1
S	5007	F503	Ditch	Samian and GW	2
	5012	F505.02	Ditch	Samian, GW and Severn Valley ware	6
	5013	F505.02	Ditch	Mortaria (Mancetter - Hartshill)	3
	5014	F505.02	Ditch	White ware, Reduced GW (P), GW, Reduced SV ware and Shell tempered ware	22
	5034	F506.02	Ditch	Reduced Severn Valley ware and BB1	47
T	1041	F118.04	Ditch	Samian	3
	1079	F134	Pit (mod)	Severn Valley ware	1
WB	9005	F903	Pit	Samian and BB1	2
Total					193

Area A (within the scheduled area)

18 sherds of Romano-British pottery were recovered from this area. The majority, deriving from ditch F443, comprised reduced and oxidised Severn Valley wares, although a small quantity of Black Burnished ware and oxidised wares was recognised. Most of the material derived from ditch deposits.

Area B (within the scheduled area)

88 sherds were recovered from this area, with nearly all deriving from F200 and F201, both north-south driveway ditches. The bulk of the finds derived from a single context (2002) and consisted of oxidised Severn Valley wares, greywares, oxidised wares and Black burnished ware. A small quantity of samian and Mancetter Hartshill mortaria was observed.

Area F

A single sherd of burnt samian was recovered from F808, a pit.

Area S

The pottery recovered from this area comprised some 80 sherds associated with ditches F505 and F503. The majority of the material derived from the former. Samian, greywares, Severn Valley wares and Mancetter Hartshill mortaria were observed.

Area T

4 sherds of pottery were recovered, three samian and one Severn Valley ware.

Watching brief

Only two sherds were recovered, one samian and one BB1.

8.2.2 Statement of potential

The potential of the Roman pottery data to enhance the understanding of the relationship of the driveway to the enclosures across the landscape must be considered in conjunction with the prehistoric pottery, to determine whether or not a continued chronology can be established. Very little published material exists for small Roman rural settlement in Staffordshire. The wider region is also poorly served and generally, with the exception of the Wroxeter Hinterland Project, there is no significant pre-existing research framework for Roman pottery within the region (Booth and Willis 1997). At the very least, further study of the Roman pottery assemblage could potentially help towards establishing and enhancing a ceramic chronology for the Iron Age and Roman interface.

The principal importance of rural assemblages, particularly when they are relatively small, is through comparative study, as a representative of a class or classes of site and assemblage which may be situated within a region with considerable diversity of site/assemblage type. This links to topics such as status and trade.

There is a need to improve our knowledge and understanding of the marketing patterns of wares from both within and outside the region. Additionally, further detailed analysis of the material from Areas B and S may benefit from systematic study by context group.

8.2.3 Methods statement

All pottery will be quantified by weight (g) and count, with detailed fabric analysis undertaken on identified key context groups. All the stratified pottery will be recorded by form and fabric and analysed by period/phase. Additionally, the samian will be sent to a specialist (Steven Willis) for detailed fabric analysis.

8.3 Other Finds by Lynne Bevan and Ann Woodward

8.3.1 Worked Flint

Three items were recovered. The flint used was a good quality flint with the thin, compacted pebble cortex indicative of flint from a secondary source, probably local river gravels. A discoidal scraper, probably of Early Bronze Age date originally, was found in a bowl-shaped pit of Late Bronze Age/Early Iron Age date (F903, watching brief). A core had been deposited within pit F526, belonging to the Late Bronze Age/Early Iron Age pit alignment in Area S and a flake came from the terminal (F445) of a Middle Iron Age

ditch in Area A. The Early Bronze Age scraper might have been residual, or deliberately deposited in the Late Bronze Age/Early Iron Age period, and the other pieces may reflect use and deposition of flintwork in the Late Bronze Age/Iron Age period.

8.3.2 Worked Stone

Three quern fragments and part of a rubber were recovered. The quern fragments, one possibly of Millstone grit, were found in the enclosure ditch (F486) and a pit (F441) inside Structure 1, all in Area A. Pit F441 also contained a flat, unworked, piece of Mercia mudstone. In addition, part of an igneous rubber was found in one of the pits (F519) of the pit alignment in Area S. All these items are like to have been *in situ* or deliberately deposited in their contexts.

8.3.3 Waterlogged Wood by Erica Macey

One item of waterlogged wood was recovered from from the bottom fill (4143) of the Iron Age enclosure ditch (F486) in Area A. This was identified as a small wooden stake by Steve Allen (pers comm).

The item measured 385mm, but the upper end was bent over upon itself - this was probably due to damage during burial rather than during actual use. The maximum width was 53mm, whilst the thickness ranged between 17 and 26mm. Seven tree rings per centimetre were visible, but the item was too small to provide a sample for dendrochronology.

Radially-cleft oak was used to make the stake, which had been worked with a metal axe - this was evident from the sharply cut facets visible on the stake. It was possible to say that the stake had been cut from the heartwood/sapwood boundary of the tree, as some 50% of the item was sapwood, but it was not possible to determine the actual size of the tree.

Allen stated that this type of stake was commonly used in the construction of buildings, fences and revetments. There was no evidence of re-use. From the context, the stake is likely to be of Iron Age date.

8.3.4 Fired Clay

Items of fired clay were recovered from features in Areas A, B C and S (see Table 5 above). There were 33 fragments of briquetage, apparently 'stony VCP' which derives from the Cheshire Plain, mostly from a single deposit in an Iron Age ditch within Area A. Thirty-five pieces of daub and of possible refractory material were also represented.

8.3.5 Medieval and Post-Medieval material

A copper alloy perforated plate, of Post-Medieval date, and various iron items were recovered from post-Iron Age contexts in Areas A, B and R. Two abraded fragments of Medieval pottery came from Areas B and R, and a total of four Post-Medieval sherds from Areas B, C and I. The only find of glass was from a modern bottle.

8.3.6 Recommendations

The flint and stone items will need full description and contextual discussion. Several of them may have formed part of structured deposits during the Late Bronze Age and Iron Age periods. Also the querns and rubbers require petrological examination. The daub, possible refractory pieces and the briquetage will need to be reported on by an appropriate specialist: the briquetage will provide important evidence concerning exchange during the Iron Age phases of the site.

8.4 **Animal Bone by Andy Hammon**

This is a very small bone assemblage (in total 39 fragments). Preservation was extremely poor (cortical integrity) and the bones were badly exfoliated. The poor state of preservation was most likely caused by an acidic subsoil and a continuously fluctuating water table due to gravel extraction. Fragmentation was moderate and a number of fragments had been burnt.

This assemblage cannot provide any meaningful data and, consequently, has no potential for further analysis. A small amount of bone may be retrieved from a series of samples taken for the flotation of carbonised plant remains. However, this is extremely unlikely to alter the above conclusion.

Table 7: Summary of hand-retrieved animal bones

Context	Feature	Number of Fragments	Comments
U/S	Nr.903	1	1 cattle mandible (mandibular hinge and gonion segment). Gnawed by dogs.
4146	445.02	15	1 cattle mandible with 2 teeth present (not possible to age using wear stages due to poor preservation). 1 fragment may have been a scapula from a cattle/horse sized animal. Other fragments appear to be from badly degraded teeth (non-identifiable).
4191	485	1	Non-identifiable and burnt.
5064	344	11	All non-identifiable. All fragments calcined.
9006	903	11	1 cattle M _{1/2} (very fragmented). 4 calcined fragments, non-identifiable. 1 singed fragment, non-identifiable.

8.5 Insect Remains by David Smith

8.5.1 Introduction

Only one waterlogged deposit, which had clear potential for insect analysis, was encountered during the excavations at Whitemoor Haye, in Area A. The material came from the fill (4166) of the lowest cut (F473) in a sequence of five re-cuts of a bowl shaped pit. This feature has been dated on the basis of the pottery recovered to the Middle Iron Age. The pit itself was cut into the southern terminal end of the Early to Middle Iron Age enclosure ditch F468.

It was hoped that an assessment of the insect remains from these samples would provide information on the following:

- 1) were insects present and, if so, are the faunas of interpretative value?
- 2) do any of the insects suggest that human settlement was nearby?
- 3) do the insect remains from the pit provide information on the nature of the environment and land use in the area at the time of the deposit's formation?
- 4) would the insects present provide information on how these deposits formed, in particular was material dumped into the pit?

8.5.2 Methods

The weights and volumes of the samples are presented at the top of Table 8.

The samples were processed using the standard method of paraffin flotation as outlined in Kenward *et al.* (1980). Given the large amount of insect material recovered in the flot only 10% of the material was then sorted and identified under a binocular microscope. The system for 'scanning' faunas as outlined by Kenward *et al.* (1985) was followed in this assessment.

When discussing the faunas recovered, two considerations should be taken into account:

1) identifications of the insects present are provisional. In addition, many of the taxa present could be identified down to species level during a full analysis, producing more detailed information.

2) The various proportions of insects suggested are very notional and subjective. As a result, the list of faunas should be regarded as incomplete and possibly biased.

Table 8: The insect remains

Weight (kg)	19
Volume (L)	13
COLEOPTERA	
Carabidae	
<i>Leistus</i> spp.	+
<i>Nebria</i> spp.	+
<i>Loricera pilicornis</i> (F.)	+
<i>Clivina fossor</i> (L.)	+
<i>T. quadristriatus</i> (Schrk) or <i>T. obtusus</i> Er.	++
<i>Bembidion</i> spp.	++
<i>Harpalus ?rubripes</i> (Duft.)	++
<i>H.</i> spp.	++
<i>Pterostichus</i> spp.	++
<i>Calathus fuscipes</i> (Goeze)	++
<i>C. melanocephalus</i> (L.)	+++
<i>C.</i> spp.	+++
Dytiscidae.	
<i>Hydrotus</i> spp.	+
<i>Hydroporus</i> spp.	+++
<i>Agabus</i> spp.	++
Hydraenidae	
<i>Ochthebius</i> spp.	++
<i>Limnebius</i> spp.	+
<i>Helophorus</i> spp.	++++
Hydrophilidae	
<i>Sphaeridium</i> spp.	+
<i>Cercyon</i> spp.	++
<i>Hydrobius fuscipes</i> (L.)	+
Silphidae	
Silphidae Gen. And spp. indet.	+

Staphylinidae	
<i>Lesteva longelytrata</i> (Goeze)	++
<i>Oxytelus</i> spp.	++
<i>Xantholinus</i> spp.	+++
<i>Tachinus</i> spp.	++
<i>Tachyporus</i> spp.	++
Aleocharinidae Genus & spp. Indet.	++
Elateridae	
Elateridae Genus & spp. Indet.	+++
Nitidulidae	
<i>Brachypterus</i> spp.	+
Lathridiidae	
<i>Corticaria/ corticarina</i> spp.	++
Scarabaeidae	
<i>Geotrupes</i> spp.	+++
<i>Aphodius</i> spp.	+++++
<i>Phylopertha horticola</i> (L.)	++
Chrysomelidae	
<i>Phyllotreta</i> spp.	++
<i>Chaetocnema</i> spp.	+
Cuculionidae	
<i>Apion</i> spp.	++
<i>Sitona</i> spp.	+++
<i>Ceutorhynchus</i> spp.	+
<i>Rhinocus</i> spp.	+
DIPTERA	
Nematocera Family, Genus and spp. indet.	++
Cyclorrhapha Family Genus and spp. Indet	++
DERMAPTERA	
<i>Forficula auricularia</i> L.	++
HYMENOPTERA	
Formicoidea Family Genus and spp. indet.	+++
Trichoptera	
Trichoptera Genus and spp. indet.	++

8.5.3 Results

Context 4166 produced an extremely large number of interpretable insect remains (approximately 1000 individuals). The insect taxa recovered are listed in Table 8. The majority of the taxa present are beetles (Coleoptera) although large numbers of ants (Formicoidea), bugs (Hemoptera) and ear wigs (Dermaptera) are present. The larval resting stages of the water flea (*Daphnia* spp.) and the head capsules and cases of both cased and caseless caddis flies (Trichoptera) also are present. There are small numbers of the head capsules of the larvae of non-biting midges (Chironomidae) in this sample as well.

The numbers of individuals present within this 10% sub-sample is estimated using the following scale:

* = 1-2 individuals ** = 2-5 individuals *** = 5-20 individuals **** = 20+ individuals

The taxonomy used for the Coleoptera (beetles) follows that of Lucht (1987).

8.5.4 Discussion

Evidence of the presence of human settlement

With the exception of small numbers of *Corticara* beetles, there are no insects present which are part of the group of species that Kenward has suggested are typical of archaeological deposits from human settlement (e.g. Hall and Kenward 1990; Kenward and Hall 1995). This suggests that the pit and the area surrounding it were not adjacent to any form of human occupation or settlement. This absence is particularly striking given that the pit lies within 20 metres of four Iron Age roundhouses. The absence of synanthropes probably suggests that this pit represents a natural deposition or an activity that occurred after settlement activity in the enclosure ceased.

The environment surrounding the pit

The majority of the insects recovered suggest that the area surrounding the pit at the time of the formation of these deposits was rather weedy and dung-splattered pasture. The fauna is dominated by large numbers of the *Geotrupes* and *Aphodius* dung beetles. These insects feed and live in large herbivore dung out in open pasture. A similar environment is also suggested by the majority of the Carabididae ground beetles present. These species are all today common inhabitants of rough dry pasture and open ground around farm sites and agricultural areas. The plant-feeding beetles are similarly associated with rather rough grasslands. In particular, the *Apion* and *Sitona* weevils are commonly associated with field clovers (*Trifolium* spp.). Similarly *Rhinocus* beetles feed on docks (*Rumex*). Also present are numbers of the garden chaffer *Phylopertha horticola*, which is associated with old dry turf in pastures. A full identification of these species should produce a wealth of information on the nature of the habitat and the vegetation surrounding this pit.

There are no species present which are associated with woodland. This suggests that by the Iron Age the area had been essentially cleared of woodland.

The formation of the pit fill

The lack of any synanthropic (associated with humans) species, and the dominance of the fauna by 'outdoors' species such as the dung beetles, would suggest that this deposit does not represent a settlement dump deposit.

The presence of moderate numbers of water beetles, such as *Hygrotus*, *Hydroporus*, *Agabus*, *Limnebius* and *Ochthebius* suggests that the pit was open and filled with standing water. Given the extremely large numbers of insects present the pit must have been open for a considerable period of time, perhaps several seasons. The species of water beetles present tend to be common in rather stagnant and temporary waters. It therefore appears that this pit, whilst filled with water, functioned as a large 'pit-fall' trap

collecting insects from the surrounding habitats. This suggests that the pit gradually in-filled over a period of time.

Suggested interpretation of the pit.

From this preliminary examination of the insect fauna it seems likely that the pit may have been a watering hole for stock kept in pasture, after the settlement had fallen out of use.

8.5.5 Recommendations

The assessment suggests that a further examination of the insect fauna from this sampling location is valid, especially since its size, preservation and clear interpretable value are exceptional. It should provide extremely detailed information on the environment and the land use in this area during the later stages of human activity at this site. In addition, insect faunas from this period are rare in Staffordshire and the midlands region in general, thus making it of regional importance. The fauna is also directly comparable to that recently recovered from similar post settlement pits at the Covert Farm, Crick, Northants. site.

8.6 Waterlogged Plant Remains by James Grieg

The sample derived from the same waterlogged context as the insect remains described above.

8.6.1 Method

The material was washed over and sieved on a 300 micron mesh by Andy Hammon. Plant remains were very abundant, as listed below (Table 9). The numbers are for seeds in the first small amount examined. Further material was looked through to record some of the many extra taxa, but the huge numbers of commoner seeds were not counted.

8.6.2 Results

Most important, from an archaeological point of view, are the small numbers of weeds of arable land such as *Spergula arvensis* (corn spurrey), *Fallopia convolvulus* (black bindweed), *Rumex acetosella* (sheep's sorrel), *Aphanes* sp. (parsley piert) and *Hyoscyamus niger* (henbane), which indicate an agricultural landscape on rather light sandy soils. There was a very slight indication of dry grassland in the *Hypochaeris* (cat's ear) and *Torilis japonica* (upright hedge parsley) records. Charcoal indicates human activity in the vicinity.

Most of the plants relate to the deposit itself, and indicate a range of weedy and overgrown habitats going from dry land through damp ground to wetland and aquatic conditions. Plants such as *Urtica* (nettles) and *Rumex crispus* (curled dock) indicate overgrown land. Damper conditions are shown by *Lycopus europaeus* (gypsywort), the

huge numbers of which could perhaps have accumulated by water action at a ditchside or similar, and by various *Persicaria* species (persicarias). Aquatic conditions are indicated by plants such as *Lemna* (duckweed) and *Glyceria* (sweetgrass).

8.6.3 Recommendations

Potential for further work could include looking through more macrofossil material for further significant taxa, looking at the pollen, and comparing results with the insect data. Other sites for comparison might include Fisherwick.

Table 9: Seed list (taxonomic order Kent (1992))

<i>Ranunculus</i> subg. <i>Ranunculus</i>	1	buttercup
<i>Urtica dioica</i> L.	24	common nettle
<i>Alnus glutinosa</i> (L.) Gaertner	1	alder
<i>Atriplex</i> sp.	4	orache
<i>Montia fontana</i> subsp. <i>minor</i> Hayw.	+	blinks
<i>Stellaria media</i> (L.) Villars	+	chickweed
<i>Cerastium fontanum</i> Baumg.	+	common mouse-ear
<i>Cerastium</i> sp.	+	mouse-ear chickweed
<i>Spergula arvensis</i> L.	1	corn spurrey
<i>Polygonum maculosa</i> Gray	1	persicaria
<i>Polygonum lapathifolia</i> (L.) Gray	+	pale persicaria
<i>Polygonum hydropiper</i> L.	+	water-pepper
<i>Polygonum aviculare</i> L.	6	knotgrass
<i>Fallopia convolvulus</i> (L.) A. Love	+	black bindweed
<i>Rumex acetosella</i> L.	1	sheep's sorrel
<i>Rumex crispus</i> L.	2	curled dock
<i>Rumex</i> sp.	1	dock
<i>Rorippa sylvestris</i> (L.) Besser	61	creeping yellow-cress
<i>Rubus/Rosa</i> thorn	2	bramble/rose
<i>Rubus</i> sp.	1	bramble/raspberry
<i>Potentilla anserina</i> L.	+	silverweed
<i>Potentilla erecta</i> L. Räusch	+	tormentil
<i>Aphanes</i> sp.	+	parsley piert
<i>Prunus/Crataegus</i> thorn	+	sloe/hawthorn
<i>Torilis japonica</i> (Houtt.) DC	+	upright hedge parsley
<i>Hyoscyamus niger</i> L.	1	henbane
<i>Galeopsis</i> sp.	1	hemp-nettle
<i>Lycopus europaeus</i> L.	381	gypsywort
<i>Cirsium</i> cf. <i>palustre</i> (L.) Scop.	+	marsh thistle
<i>Hypochaeris</i> sp.	+	cat's ear
<i>Lemna</i> sp.	8	duckweed
<i>Juncus</i> sp.	1	rush
<i>Isolepis setacea</i> R. Br.	1	bristle club-rush
<i>Carex</i> subg. <i>Vignea</i>	6	sedge, biconvex seeds
Poaceae	4	grasses
<i>Glyceria</i> sp.	1	sweet-grass
charcoal	+	

8.7 Charred Plant Remains by Lisa Moffett

8.7.1 Methods

Samples were taken at the excavator's discretion from contexts which appeared to be datable. A total of 53 samples were taken, of which 7 - those discussed here - were processed for assessment. The soil samples ranged in size from 9 to 20 litres. Processing was undertaken by an environmental assistant. The samples were processed by water flotation, collecting the flot (the floating material) on a 0.5mm sieve and washing through the heavy residue onto a 1mm sieve. The flots were then dried at room temperature, bagged and labelled.

The assessment was carried out by rapidly scanned the flots, or a subsample if the flot was large, under a binocular microscope at x10 magnification. The material in the flot was briefly noted, including a rapid identification of any charred seed material. Identifications were made at a glance and without reference to modern comparatives. There is, therefore, a possibility of error. Some material may also have been overlooked in scanning. The aim, however, was to characterise the sample to determine its potential value for further analysis, rather than to accurately identify all the material. In the event there was little charred material, other than wood charcoal, in the samples assessed.

Table 10: Results of assessment of charred plant remains

Context Number	Context Type	Phase	Soil Sample size	Notes on the charred material
6019	Pit fill	Late Neolithic/Early Bronze Age	12	A few fragments of hazel (<i>Corylus avellana</i>) nut shell, an unidentified seed, and a small amount of wood charcoal.
3031	Ring ditch Terminal	Mid-Late Bronze Age	18	Possible spelt grain (<i>Triticum cf. spelta</i>), a cereal grain, a seed of brome (<i>Bromus</i> sp.), and a small amount of wood charcoal.
5045	Pit fill	Late Bronze Age	20	A few unidentified cereal grains and grass seeds, a large amount of wood charcoal.
5058	Pit fill	Late Bronze Age	9	A moderately large amount of wood charcoal.
4124	Pit fill	Middle Iron Age	23	A moderate amount of small fragments of wood charcoal.
4146	Pit fill	Middle Iron Age	19	A small amount of wood charcoal
4051	Possible Hearth	Middle Iron Age	?	A moderate amount of wood charcoal, some in large pieces.

8.7.2 Results and recommendations

The result of this assessment is that further analysis of these particular samples for charred remains, other than wood charcoal, would not be justified. The results from these samples are not necessarily predictive of the results of the samples from the rest of the site, however. It is recommended that the remaining samples be processed and assessed to determine their potential for analysis. It is worth emphasising the rarity of early prehistoric material from this region and therefore the need to recover as much data as possible.

8.8 Charred Wood Remains by Jenny Moore

8.8.1 Introduction

Charred wood remains were found in various contexts and reported in an interim statement in July 1998. The depositional environment and context of the charred wood remains indicates that these remains require additional analysis. Further, samples were identified as being suitable for initial radiocarbon dating.

8.8.2 Methods

The extraction methods are set out in the preliminary assessment undertaken by Lisa Moffett for charred plant remains (Section 8.7, above). Assessment of the charred wood remains was undertaken on the basis of 1g subsample of the flot being rapidly scanned under a binocular microscope at x10 magnification. The methodology for identification of charred wood remains is set out in Pearsall (1989) and involves fracturing the sample to provide radial longitudinal and tangential longitudinal sections. As this was a preliminary assessment to evaluate the sample for further analysis, fractionation was avoided wherever possible, to minimise bias in future analysis. Therefore the results must not be regarded as providing accurate identification or giving a clear indication of the composition of each sample.

8.8.3 Results

The samples examined are set out in Table 11 below.

The species list is representative of fragments of wood charcoal that were clearly identifiable. In each sample a considerable number of fragments were not clearly identifiable. In view of this, the composition in each context is certainly much broader than indicated by this assessment. In context 5058 there is a high number of Oak (*Quercus*) fragments in comparison to other contexts. The fragments in context 5045 are friable and should be treated with care.

Contexts 4004, 4061, 4051, 6019, 5045 and 5058 were considered for radiocarbon dating. The sample size recommended by Beta Analytic Inc is 2-4gms. On this basis context 6019 does not contain enough charcoal by weight for dating purposes and this would preclude species identification. Similarly the amount of charred wood remains in samples 4004, 4061 and 4051 is not sufficient to provide a quantity of material for dating and identification of species. Contexts 5045 and 5058 both provided sufficient charcoal for dating by weight and accordingly these contexts were sampled for twigs and young wood for radiocarbon dating.

Table 11: Results of assessment of charred wood remains

Context number	Context type	Phase	Soil Sample Size	Associated deposits	Assessment
6019	Pit fill	Late Neo/early BA	12	Beaker	Hazel (<i>Corylus</i>), Birch (<i>Betula</i>), Oak (<i>Quercus</i>)
3031	Ring ditch terminal	Mid-late BA	18		Hazel (<i>Corylus</i>), Birch (<i>Betula</i>), Oak (<i>Quercus</i>)
5045	Pit fill	Late BA	20	Large vessel	Friable sample. Hazel (<i>Corylus</i>), Birch (<i>Betula</i>), Oak (<i>Quercus</i>), ¹⁴ C sample
5058	Pit fill	Late BA	9	Portions of several vessels, deliberate deposits, core	Oak (<i>Quercus</i>) rich, Hazel (<i>Corylus</i>), (<i>Betula</i>), Willow (<i>Salix</i>) ¹⁴ C sample
4124	Pit fill	Middle IA	23		Hazel (<i>Corylus</i>), Birch (<i>Betula</i>), Oak (<i>Quercus</i>)
4146	Pit fill	Middle IA	19	Animal bone	Hazel (<i>Corylus</i>), Birch (<i>Betula</i>), Oak (<i>Quercus</i>)
4051	Possible hearth	Middle IA	?		Hazel (<i>Corylus</i>), Birch (<i>Betula</i>), Oak (<i>Quercus</i>)
4101	Enclosure ditch				Not examined
4061	Ring ditch	Middle IA		Large vessel	Hazel (<i>Corylus</i>), Birch (<i>Betula</i>), Oak (<i>Quercus</i>)
4004	Posthole	?			Hazel (<i>Corylus</i>), Birch (<i>Betula</i>), Oak (<i>Quercus</i>)

8.8.4 Recommendations

Because of the context of these deposits and the time span involved, identification of species from these deposits is recommended. The selection of woodland species and their association through time with specific contexts and deposits could expand understanding of the utilisation of woodlands in this environment. In particular, in contexts 5045 and 5058 the associated deposits with charred wood remains where there is no evidence of *in situ* burning are of particular interest. It is recommended that identification of the charred wood fragments takes place before further sampling for radiocarbon dating.

8.9 Radiocarbon Samples by Gary Coates

Radiocarbon samples from six charcoal-rich contexts were obtained (Table 12). The samples were selected on the basis of their apparent high charcoal content and, in four cases, their association with deposits containing datable pottery. Every care was taken to avoid contamination at all stages of sampling. A consideration of the suitability of the charcoal samples for radiocarbon dating, specifically their quantity and quality, is outlined above (Section 8.8.3), but further consideration of the integrity of the deposit from which they derived is required before any recommendations for submission for dating can be made.

In Area A, contexts 4004 and 4051 were silt-sand deposits constituting the upper fills of a gully (F405) and a possible hearth (F433). They were not, therefore, well sealed and the charcoal could have derived from a variety of sources and any resulting date could not be securely associated with the deposits and could provide a possible erroneous *terminus ante quem* for the digging of these features. The charcoal from 4061 derived from beneath a deposit (4060) containing part of the base and lower wall of a large Middle Iron Age storage jar, and might therefore provide a *terminus post quem* for its deposition. However, as the sample is too small for a conventional date (see above, Section 8.8.3) and the date range a radiocarbon date would provide, especially at a difficult point on the calibration curve, would add little to the date derived from the pottery, radiocarbon dating of this sample is not considered worthwhile.

The charcoal from 6019, in Area R, derived from the fill of a possible Beaker inhumation. The integrity of the deposit is questionable as there was no conclusive evidence to suggest if it was a back-filled grave cut or a silted up pit, although the association with the Beaker vessel suggests it would be useful to try and obtain a date from this sample, even if the sample size is too small for a conventional date.

In Area S, the charcoal from 5045 derived from the fill of a post-hole (F537), which contained a quantity of Late Bronze Age pottery; both the pottery and the charcoal were located low in the context and would provide a *terminus post quem* for the digging of the post-hole and a possible deposition date for the pottery itself. 5058 was the fill of pit F526, which itself was the re-cut of pit F548, and contained pottery of Late Bronze Age

date. Although, it would be desirable to obtain a date associated with this feature, the integrity of the sample may be questionable as the silting of the pit may have introduced the charcoal at any point and the context itself may have been re-deposited; this could, however, still provide a possible date for the original deposition of the pottery.

It is recommended that conventional dates be obtained from the charcoal from contexts 5045 and 5058, and an accelerator date from context 6019.

Table 12: List of Radiocarbon Samples

Area	Context	Feature	Feature Type	Provisional Date
A	4004	F405	Gully	None
A	4051	F433	Hearth ?	None
A	4061	F438.01	Ring Gully Terminal	Middle Iron Age
R	6019	F612	Pit/ Grave ?	Late Neolithic/ Early Bronze Age
S	5045	F537	Post-hole	Late Bronze Age
S	5058	F526	Pit	Late Bronze Age

9.0 UPDATED PROJECT DESIGN by Gary Coates and Ann Woodward

9.1 Background

The excavations at Whitemoor Haye were designed to characterise the development of the prehistoric and Roman landscape. In particular it was intended to examine the character of the ritual landscape in the northern part of the site and the relationship of the later prehistoric features with those of Romano-British date. The excavations were also designed to examine the functional relationship between the occupation of the gravel terrace and the utilisation of the flood plain.

The seven areas excavated provided a picture of the landscape from the late Neolithic/ Early Bronze Age period, through the Bronze and Iron Age up to the Romano-British period, with some slight evidence from the Medieval and Post-Medieval periods. The watching brief, outside the excavation areas themselves, also built upon the cropmark plot and identified the continuation of features outside these areas.

9.2 Discussion of archaeological results

There appear to be four distinct periods of activity which can be recognised at Whitemoor Haye, the earliest of which is characterised by the possible 'inhumation burial' from Area R, with its accompanying Beaker vessel of Early Bronze Age date. This may have been the central or a satellite burial of the ring ditch that was recorded here as a cropmark, but which was not evident in either Trench 3 of the 1992 evaluation or the subsequent area excavation. It is possible that the feature has been ploughed out since the aerial photographs were taken. The features in the vicinity of the 'burial' may have been

unaccompanied inhumations, but the evidence is far from conclusive and only further excavation in the area surrounding Area R may provide more evidence. The 1995 evaluation also produced Late Neolithic pottery, from Trench B, which was associated with a circular cropmark. This evidence of early activity was supported by the discovery, in 1996, of a Beaker vessel from the nearby National Memorial Arboretum site, north of the A513. This was found in a discrete pit, probably associated with the multiple ring ditch cropmark SAM 199 (Hovey et al. 1998). The location of these discoveries suggests a focus of Late Neolithic/Early Bronze Age ritual activity in the north of the concession area, divided by the modern road.

The next period of activity on the site is associated with a Late Bronze Age date and is characterised by the two east-west pit alignments in Areas S and T, although the pits in the latter area did not produce any dating evidence. These two alignments of double rows of staggered, bowl-shaped pits may have formed territorial boundaries and/or had ritual function; from the cropmark evidence they appear to continue beyond the excavated area, perhaps as far as the River Tame. The pottery sherds found in Area S were deliberate, structured depositions of a single or a few vessels, indicative of ritual practices. The presence of large quantities of burnt stones within the associated fills is also suggestive of ritual activity. Two of the pits also contained undiagnostic Iron Age sherds, which may suggest that not all the pits were filled at the same time, and that the alignments may have remained in use over a considerable period of time.

The group of post-holes to the north of the pit alignment in Area S, although not resolvable into a coherent structure, might also be associated with ritual activity connected to the use of the pits. One of the post-holes (F537) produced an a clearly deliberate deposit of over one hundred sherds of Late Bronze Age/Early Iron Age pottery, contemporary with the use of the pit alignment.

The third period of activity dates to the Middle Iron Age and is characterised by the enclosures and ring gullies from Areas A, B, and C. Two large and multiphased rectangular enclosures were identified with structures within. The evidence of domestic activity in these enclosures was slight. Environmental evidence, from the pits cutting the enclosure in Area A, suggested that it was associated with arable farming and stock rearing; although this may post-date the occupation phase. A curvi-linear enclosure ditch in Area C may be of earlier or later date than the rectangular enclosures or there may have been a hierarchical or functional difference between the enclosure types. The structures represented by the ring gullies all appear to have been the same morphologically, although there were differences in size and the number of internal features.

The fourth phase of activity belongs to the early Romano-British period. The latest phase of the extensive north-south driveway can be dated to the 2nd century AD by Romano-British pottery contained within its ditch fillings. However there are hints that it may have followed the line of an existing Iron Age ditch, at least in Area B. Also it runs through a gap which existed in the Late Bronze Age/Early Iron Age pit alignment within Area T. The exact function of the Romano-British driveway remains ambiguous,

especially as *Ryknield Street* lies so close by to the west. Evidence of the triple-ditched feature, which lies near to the southern end of the driveway, was recorded in Area F. This, however, was problematical as there was a lack of associated artifacts, which made defining its function difficult. These ditches may have been of Iron Age or Romano-British date. Romano-British ditches were identified in Area S, and these appear to have formed parts of the west and east sides of a rectangular enclosure known from the cropmark plot, although no internal structural evidence was observed.

9.3 Summary Statement of Potential

The excavations have provided a window onto an ancient landscape evolving over at least two and a half millennia. This picture will be further elaborated as more excavations take place in the future. The further study of the stratigraphy and morphology of the enclosure ditches, structural features, pits and driveway ditches will provide a more explicit understanding of the site and its chronology. So far dating is provided only by the pottery, and for the Late Bronze Age and Iron Age periods this cannot be very precise. Material upon which radiocarbon dating of the Iron Age phases may be based (e.g. charcoals from a sequence of stratified and sealed deposits containing pottery, or articulated bone) was not located in this phase of excavation. However, individual charcoal samples from one of the pit alignments, whose dates may fall before the calibration 'plateau', are recommended for analysis. The charcoal from the Beaker pit should provide a useful first date for the Beaker and thus for the Late Neolithic/Early Bronze Age period of ritual activity in the northern zone of the site.

The study of the relationship of the driveway ditches and the earlier enclosure ditches, especially their re-use, may enlighten our understanding of the site use during the Late Iron Age and early Romano-British period, when there may have been a hiatus of activity on the site. Detailed study of the Iron Age pottery in relation to assemblages from other midland sites and the further study of the Romano-British pottery may help to establish a continued chronology between the periods.

The excavated evidence has provided a great deal of information which can be used to investigate settlement types and social organisation through time. The huts, apparently of Iron Age date so far, occur within various types of multi-phased enclosure which are of varying size and form, and the huts themselves vary in terms of size and the number of internal facilities contained within them. Possible territorial boundaries include the east-west pit alignments, of Late Bronze Age/Early Iron Age date, a possibly Middle Iron Age major north-south ditch, east-west triple ditches, as yet undated, the substantial north-south driveway, dated in its final form to the Romano-British period, and various rectilinear land allotments. Analysis of all these features will contribute to an analysis of the function and social status of the settlement activities and how these may have changed through time. This analysis will be enhanced by a detailed study of the prehistoric and Roman pottery, which will be compared with assemblages from other sites in order to assess aspects of site status and function. Non-domestic activities will be considered by a

study of possible structured deposits, in particular those contained within pits associated with the pit alignments.

Another theme to be investigated in depth will be site economy. The agricultural regime will be reconstructed from detailed study of features and structures (possible field and territorial boundaries, droveways, enclosures, storage pits and the lack of four post structures). Thus the importance of arable agriculture and stock rearing, and their possibly varying significance through time, will be considered. The environmental remains will greatly assist in this task. So far one post-enclosure pit has produced evidence of both stock rearing (insect remains) and arable farming (waterlogged seeds). Preliminary analysis of a small series of the charred samples recovered has shown that charred seeds seem fairly rare (but occur both in a pit belonging to one of the pit alignments and in the ring gully of one of the huts), but that all the assessed samples contain identifiable wood. The samples derived from deposits belonging to most site periods: the Beaker pit, the Late Bronze Age/Early Iron Age pit alignments, the Iron Age huts and enclosure ditches and the post-enclosure pits of Area A. The wood charcoal will be important in reconstructing the utilisation and/or management of woodlands, and possibly hedges, at different periods in the site's history. By comparison, the potential provided by the small assemblage of animal remains is rather low, but study of the four quern fragments found will aid discussion of plant food preparation.

There is very little evidence for on-site production or craft activities. No metalworking debris was recovered but the large quantities of burnt stone from certain feature types may relate to specific activities, and this topic can be investigated. The extent of trading links will be examined by petrological study of the prehistoric pottery and querns, detailed analysis of the briquetage and typological study of the Romano-British wares.

The overall nature and importance of the findings so far at Whitemoor Haye can be established by comparing the results with those from other similar sites within the immediate region and beyond. The late Neolithic/Early Bronze Age Peterborough ware from evaluation Trench B and the Beaker from a pit, possibly once containing a burial, from excavation Area R, taken together with the cropmark evidence for a series of ring ditches, all within the northern sector of the extraction area, indicate the existence of an important zone of ritual landscape. There are also hints in the form of Early Bronze Age pottery from Area A (evaluation Trench 31) and from evaluation Trench 28 that such activity also extended further south. This ritual landscape may be an extension of that represented by the multiple ring ditch and Beaker pit known immediately to the north, also in Alrewas parish, and indeed of the remarkable group of henge and cursus monuments at Catholme, only 3 km to the north. Whitemoor Haye/Alrewas early prehistoric results will need to be compared, in due course, with similar areas of ritual landscape elsewhere in the midlands e.g. Barford/Wasperton (Warks), Aston (Derbys) and Maxey (Cambs), and with those well known from the Thames Valley.

The pit alignments, one of which has already been dated by ceramics, are of national importance. Their detailed morphology will need to be compared with other excavated

examples in the midlands, and especially with those which have been dated by radiocarbon or ceramics (Jackson 1974 and 1978; Pollard 1996). Their possible functions, utilitarian and symbolic, in relation to the local topography and their chronological relationships with the later ditches and boundaries on the site will need to be assessed and discussed. The structured deposits of pottery at Whitemoor Haye can be related to others recently recognised at St. Ives (Cambs), Ringstead, Gretton and Briar Hill (all Northants) and Tallington (Lincs) (Pollard 1996, 111).

The multiphased enclosures, so far mainly of Iron Age date, include units of varying form and size. Their features, together with the hut gullies, pits, post-enclosure ditches and pits and the associated land divisions will be compared with other excavated tracts of Iron Age landscape in the Tame (Fisherwick, Staffs), Avon (Covert Farm, Crick, Northants and Wasperton, Warks), Trent (e.g. Willington, Derbys), Welland and Nene valleys. The overall picture will also be contrasted with the varying landscape exploitation systems now recognised within the upper and middle Thames valley. The extent to which the pattern of land use at Whitemoor Haye continued into the Romano-British period, and the extent to which it became modified through time, will be considered, again with reference to other patterns of continuity and discontinuity known from sites such as Wasperton(Warks) or Weekley and Covert Farm, Crick (Northants). The relationship to the local Roman road system and the town of *Letocetum* will also be taken into account. Finally, the date of abandonment of the Romano-British layout and aspects of subsequent land use will be reviewed in brief.

9.4 Aims and Objectives

The original aims of the excavations still remain pertinent in the post-excavation analysis, and only the aim of the examining the relationship between the occupation of the gravel terrace and the utilisation of the flood plain stands out as being problematic as the work to date has not sufficiently examined the flood plain at Whitemoor Haye.

The main broad aims of post-excavation analysis are:

- To examine the character of Late Neolithic/Early Bronze Age ritual activity on the site, including detailed analysis of the Beaker vessels from Area R and the National Memorial Arboretum site, and to set this in regional and national context.
- To undertake a detailed analysis of the the pit alignments in Areas S and T, paying particular attention to the evidence for structured deposition, and to establish regional and national comparisons in an attempt to understand their function and significance in the Late Bronze Age landscape.
- To attempt to define a sequence for the development of the Middle Iron Age enclosures and to examine their possible functions and interrelationships, utilising comparison with similar enclosures regionally and nationally.

- Linked to the above, to analyse the evidence for structures within the enclosures, including their stratigraphic sequence where possible, in an attempt to define their relationships with one another and with the enclosures and to elucidate their possible functions, utilising the artefactual evidence as appropriate.
- To obtain an understanding of the relationship of the enclosures with the later droveway, especially the re-utilisation of enclosure ditches, with a view to elucidating the nature of continuity and change in the transition to the Romano-British period.
- To examine the environmental evidence to reconstruct local prehistoric land use and environment, through the insect remains, charred wood and waterlogged seeds.
- To investigate the character of the Romano-British landscape through analysis of its principal elements - the droveway and associated Romano-British enclosures and field systems – in their regional context.
- To examine patterns of trade and exchange through petrological study of the prehistoric pottery and querns, detailed analysis of the briquetage and typological study of the Romano-British wares.

9.5 Publication Synopsis

The excavations will be published as a British Archaeological Report in the Birmingham University Field Archaeology Unit Monograph series, published by Archaeopress. The report will be aimed principally at an academic readership and will include the results of the salvage recording undertaken at the National Memorial Arboretum site.

9.5.1 Publication Structure

'Excavations at Whitemoor Haye, Staffordshire, 1997–1998'
by Gary Coates & Ann Woodward

with contributions by Lynne Bevan, Rowena Gale, James Grieg, Andy Hammon, Annette Hancocks, Gwilym Hughes, Rob Ixer, Erica Macey, Elaine Morris, David Smith, Wendy Smith and Steven Willis

Summary

Acknowledgements

Introduction - site location, background to the project, geology and topography, regional background, previous geophysical and archaeological investigations, aims and objectives, methodology

Results – a narrative describing the results of the investigations by phase, with the results of specialist analyses integrated into the text.

Specialist Reports

Prehistoric Pottery by Ann Woodward
Petrological Analysis by Rob Ixer
Briquettage/Fired Clay by Elaine Morris
Romano-British Pottery by Annette Hancocks
Samian by Steven Willis
Small Finds by Lynne Bevan
Waterlogged Wood by Erica Macey
Animal Bone by Andy Hammon
Insect Remains by David Smith
Charred Plant Remains by Wendy Smith
Pollen Remains by James Grieg
Charcoal Identifications by Rowena Gale
Radiocarbon determinations by Beta Analytic, Miami

Discussion – a wide-ranging interpretation and discussion of the site, placing it in its regional and national context and including recommendations for future research.

References

(Estimated Total Length, 30,000 words, 20 figures and 12 plates)

9.6 Post-excavation task list

Stage 1: Phasing and preparation of Notes for Specialists

Examination of stratigraphic and structural evidence (Task 1)

A detailed examination of the written, graphic and photographic records contained within the site archive will be undertaken in order to redefine the account of the phasing and morphology of the site.

Gary Coates	15 days
Ann Woodward	5 days

Preparation of notes for specialists (Task 2)

The notes for specialists will comprise a phased site narrative, relevant stratigraphic data, and a summary of the post-excavation aims and objectives.

Gary Coates	5 days
Ann Woodward	2 days

Performance Indicator - completion of Notes for Specialists

Stage 2: Preparation of Specialist Reports

Report on Prehistoric Pottery (Task 3)

Erica Macey (Conjoins - fitting and sticking prior to drawing)	3 days
(Beaker plus c.3 LBA/EIA vessels)	
Ann Woodward (Fabric and form series and descriptions)	1 day
(Pro forma record)	3 days
(Text, tabulations and discussion)	2 days
Rob Ixer (Petrology, 5 or 6 samples)	1 day

Report on Briquetage/Fired clay (Task 4)

Elaine Morris	0.5 day
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Report on Romano-British Pottery (Task 5)

Annette Hancocks (Record pottery)	1 day
(Write report)	1 day
Steven Willis (Samian report)	1 day
Annette Hancocks (Integrate reports)	1 day

Report on Small Finds (Task 6)

Lynne Bevan (Flint Report)	1 day
(Stone Report)	2 days
Rob Ixer (Petrology, 5 samples)	1 day

Report on Waterlogged Wood (Task 7)

Erica Macey	1 day
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Animal Bone Report (Task 8)

No further work required

Report on Insect Remains (Task 9)

Assistant (Sort remaining 90% of paraffin flot)	3 days
David Smith (Full identification of faunas)	2 days
(Report preparation)	2 days

Report on Charred Plant Remains (Task 10)

Assistant (Processing of remaining samples)	4 days
Wendy Smith (Assessment/Report)	2.5 days

Report on Waterlogged Pollen (Task 11)

James Greig (Further recording of taxa)	2 days
(Report)	1 day

Charcoal Identifications (Task 12)

Rowena Gale	(Identification of charcoal fragments)	3 days
	(Report)	1.5 days

Radiocarbon Determinations (Task 13)

Beta Analytic	(2 conventional and 1 accelerator date)	
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Performance Indicator- completion of specialist reports

Stage 3: Integration

Integration of results of specialist analysis into site narrative and refinement of phasing (Task 14)

Gary Coates		3 days
Ann Woodward		2 days

Performance indicator – revised site narrative

Stage 4: Illustration

Preparation of Site Drawings (Task 15)

Nigel Dodds		10 days
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Preparation of Finds Drawings (Task 16)

Mark Breedon	(Prehistoric Pottery)	5 days
	(Roman Pottery)	1 day
	(Small finds)	4 days

Preparation of Plates (Task 17)

Graham Norrie		1 day
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Performance indicator – completion of illustrations

Stage 5: Discussion

Library research and preparation of discussion section of report (Task 18)

Gary Coates		10 days
Ann Woodward		5 days

Performance indicator – completion of first draft of report

Stage 6: Report Production

Editing of First Draft of Report (Task 19)

Ann Woodward 2 days

Preparation of camera-ready text (Task 20)

Liz Hooper 5 days

Proof reading (Task 21)

Ann Woodward 2 days

Performance indicator – submission of report to publisher

Stage 7: Archive

Preparation of research and finds archive (Task 22)

Gary Coates 5 days

Deposition of research and finds archive (Task 23)

Gary Coates 2 days

Performance indicator – deposition of archive

10.0 ACKNOWLEDGEMENTS

The report was written by Gary Coates with contributions from Lynne Bevan, James Grieg, Andy Hammon, Annette Hancocks, Gwilym Hughes, Erica Macey, Lisa Moffett, Jenny Moore, David Smith and Ann Woodward. The illustrations were prepared and drawn by Mark Breedon and Nigel Dodds, and the report was edited by Simon Buteux.

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The excavations were monitored by Sue Cole for English Heritage and Chris Welch for Staffordshire County Council.

11.0 REFERENCES

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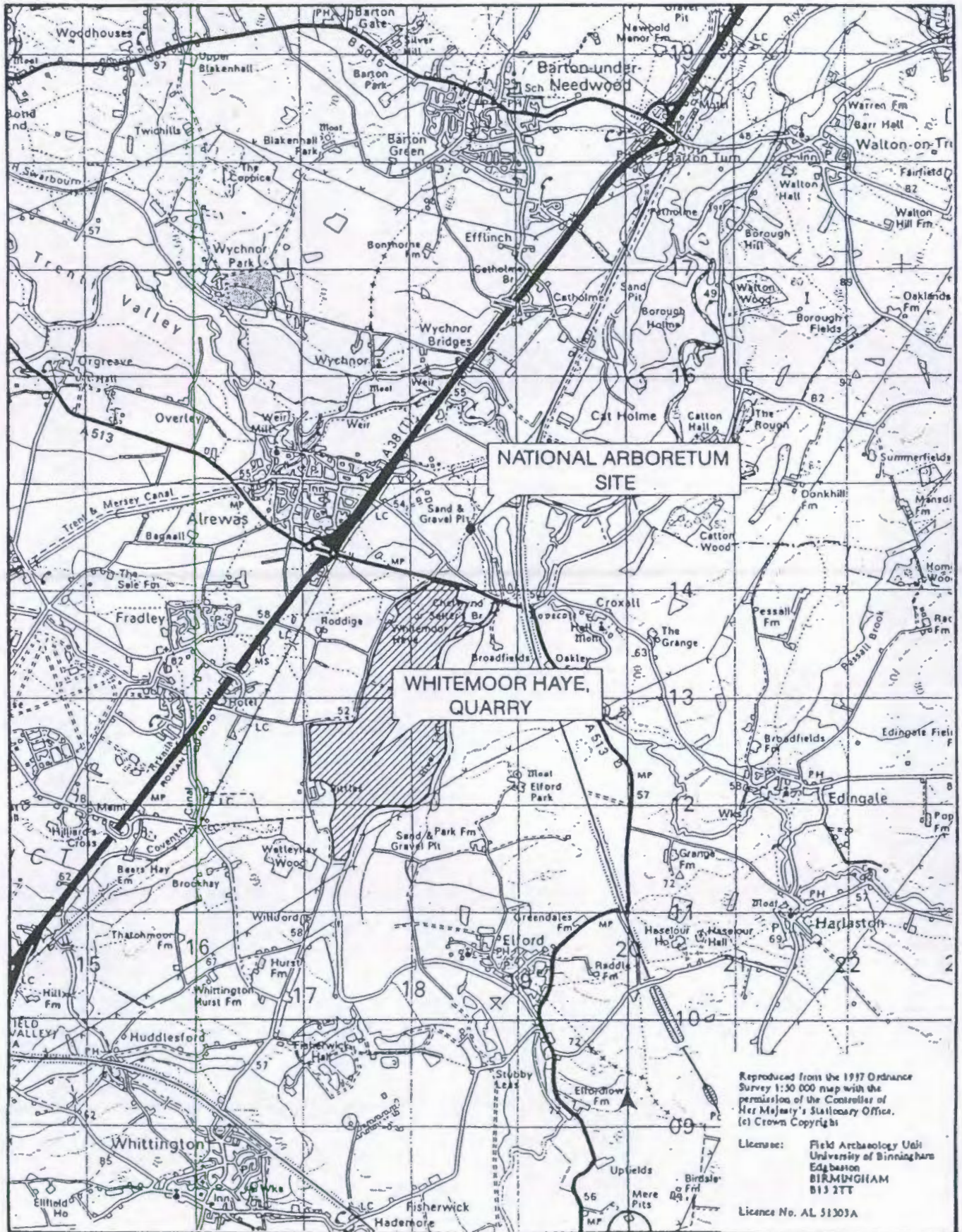


Fig. 1. Location of Sites



Fig. 2. Geology of the Region

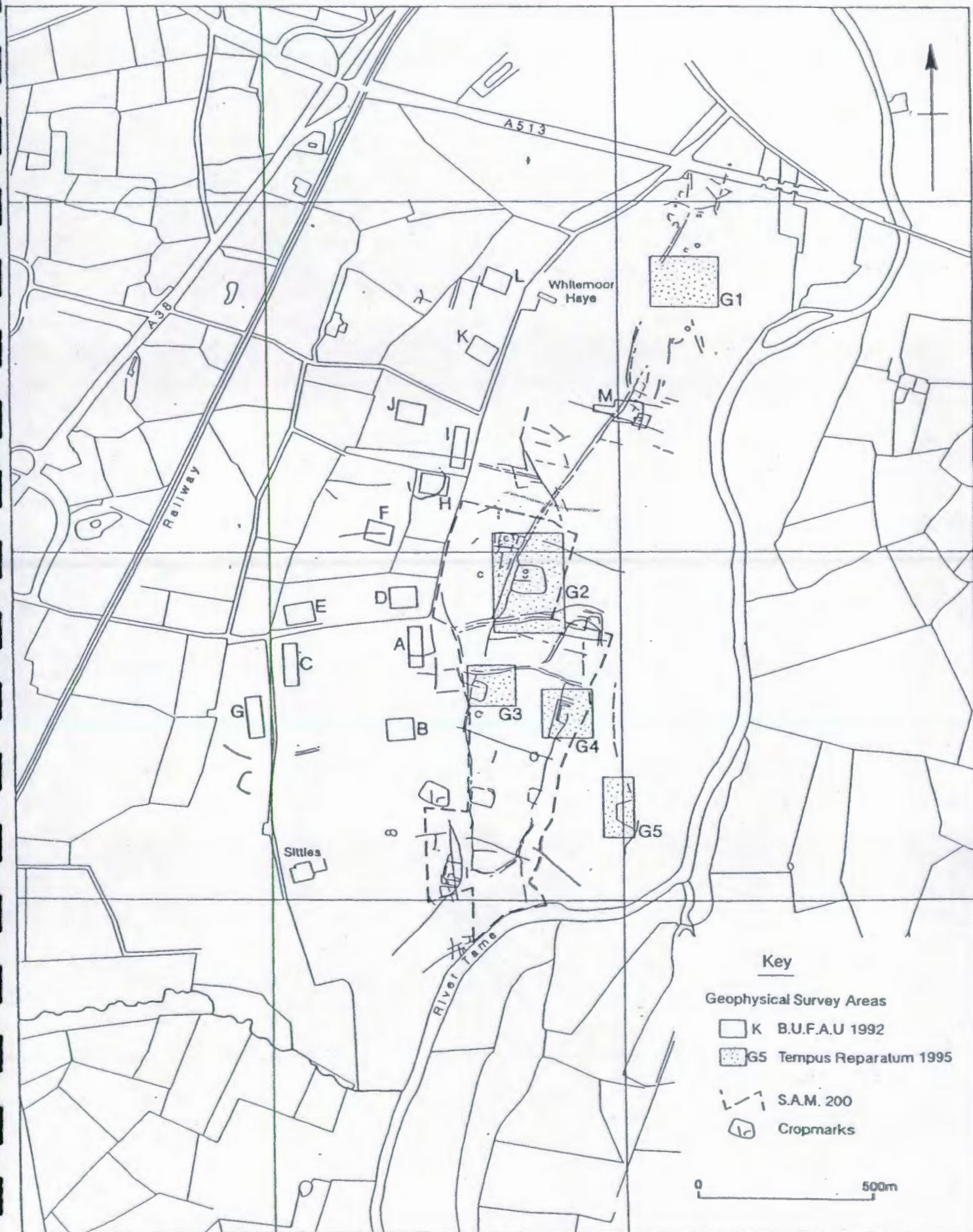


Fig. 3. Geophysical Surveys

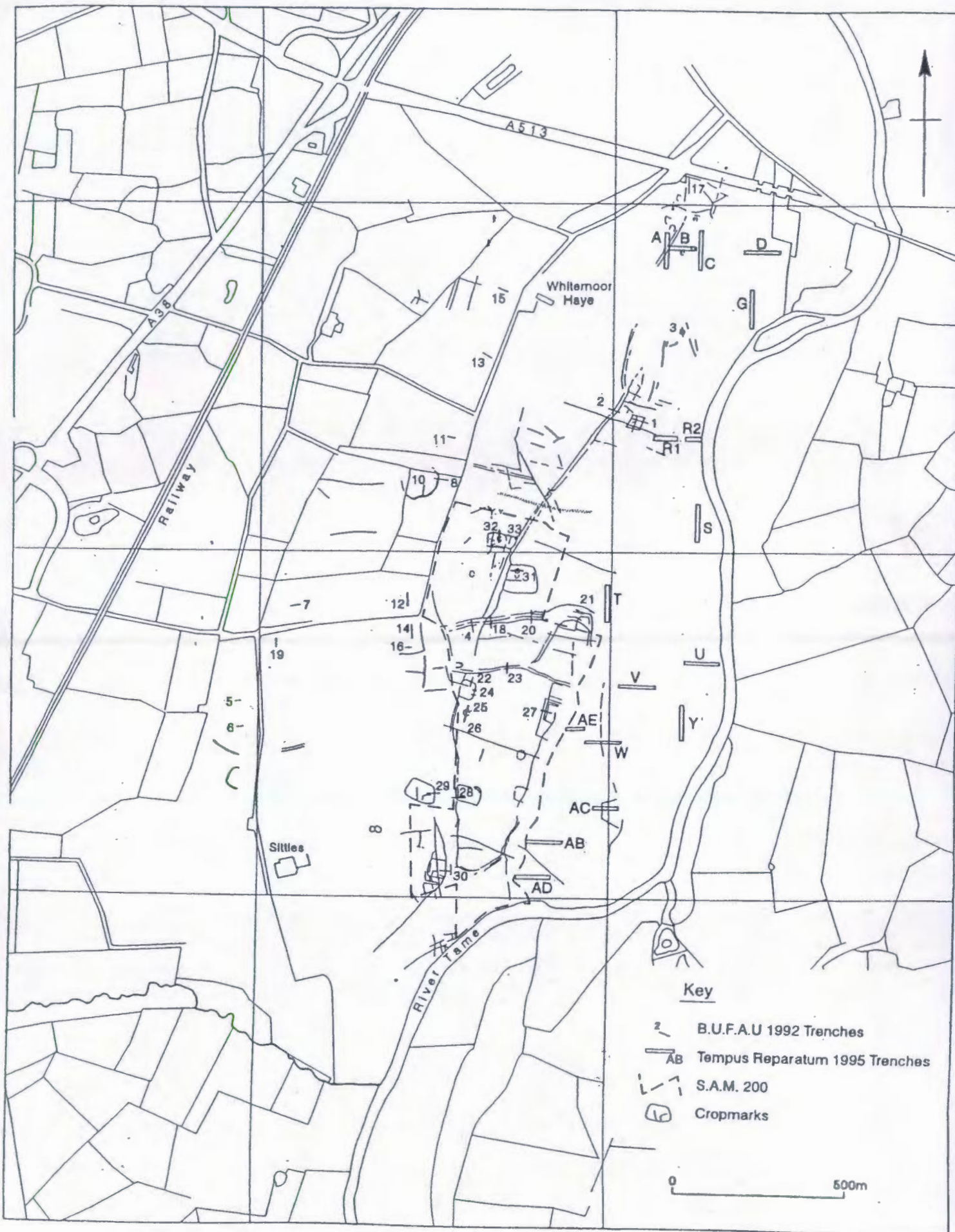


Fig. 4. Evaluation Trenches

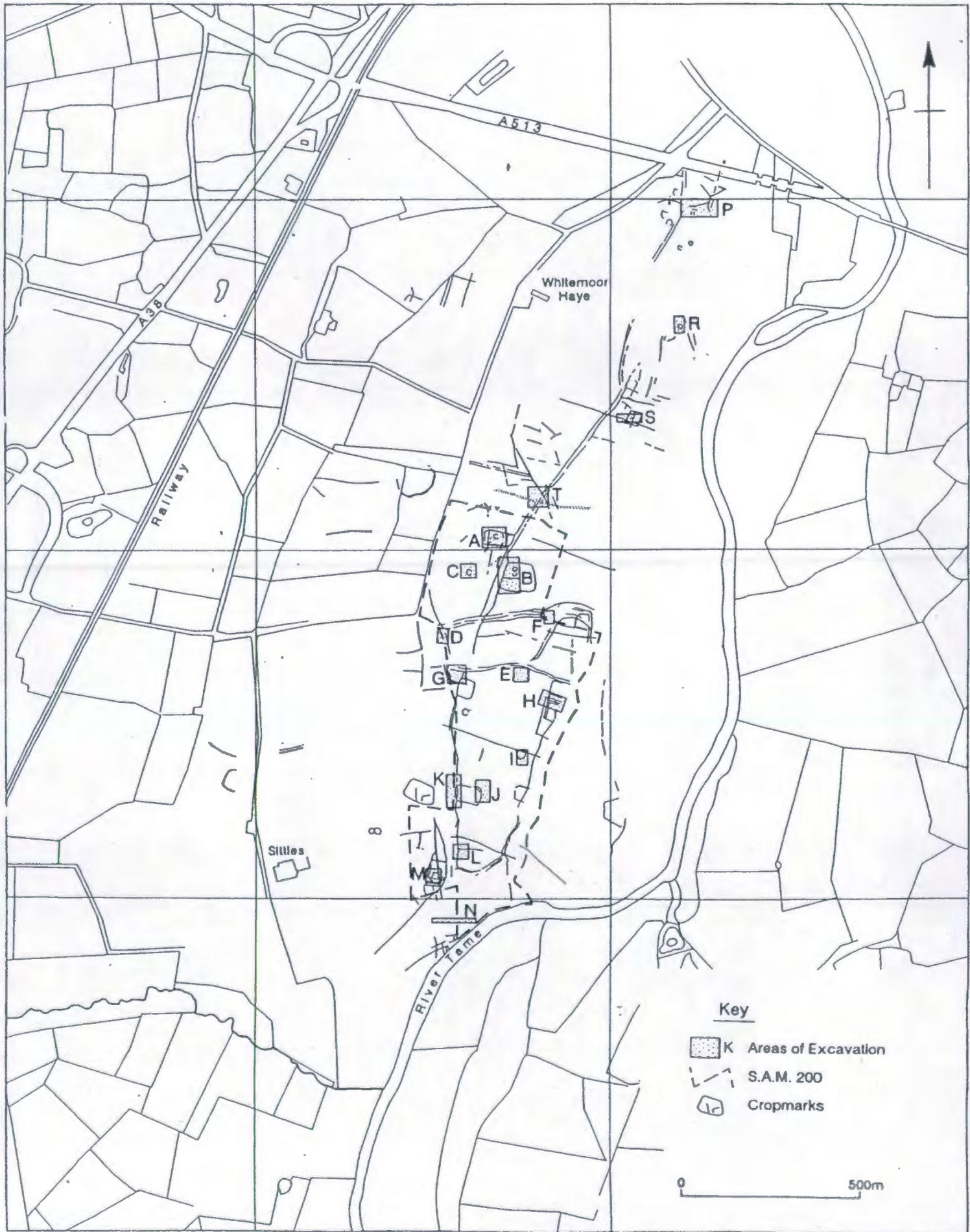


Fig. 5. Excavation Areas

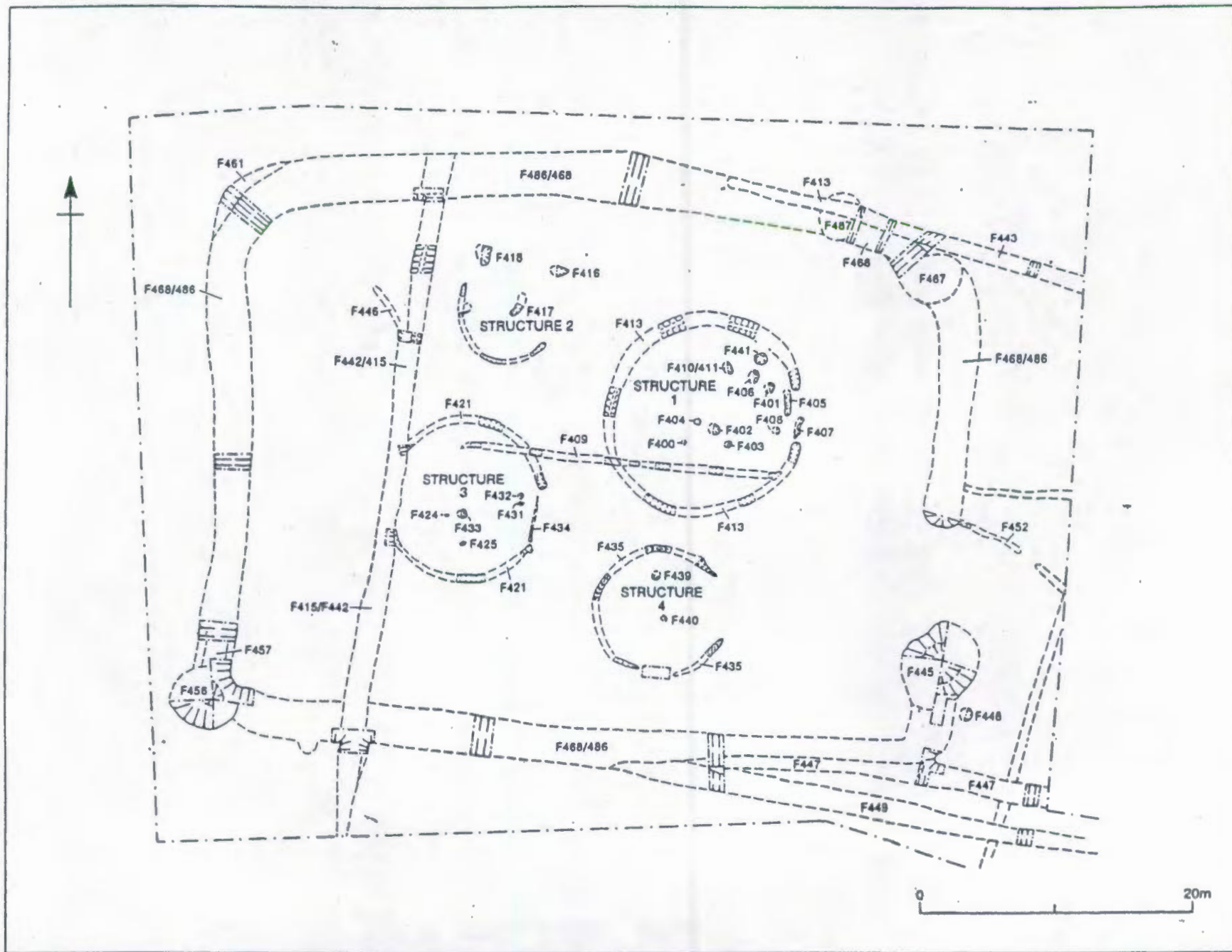


Fig. 6. Post Excavation Plan of Area A

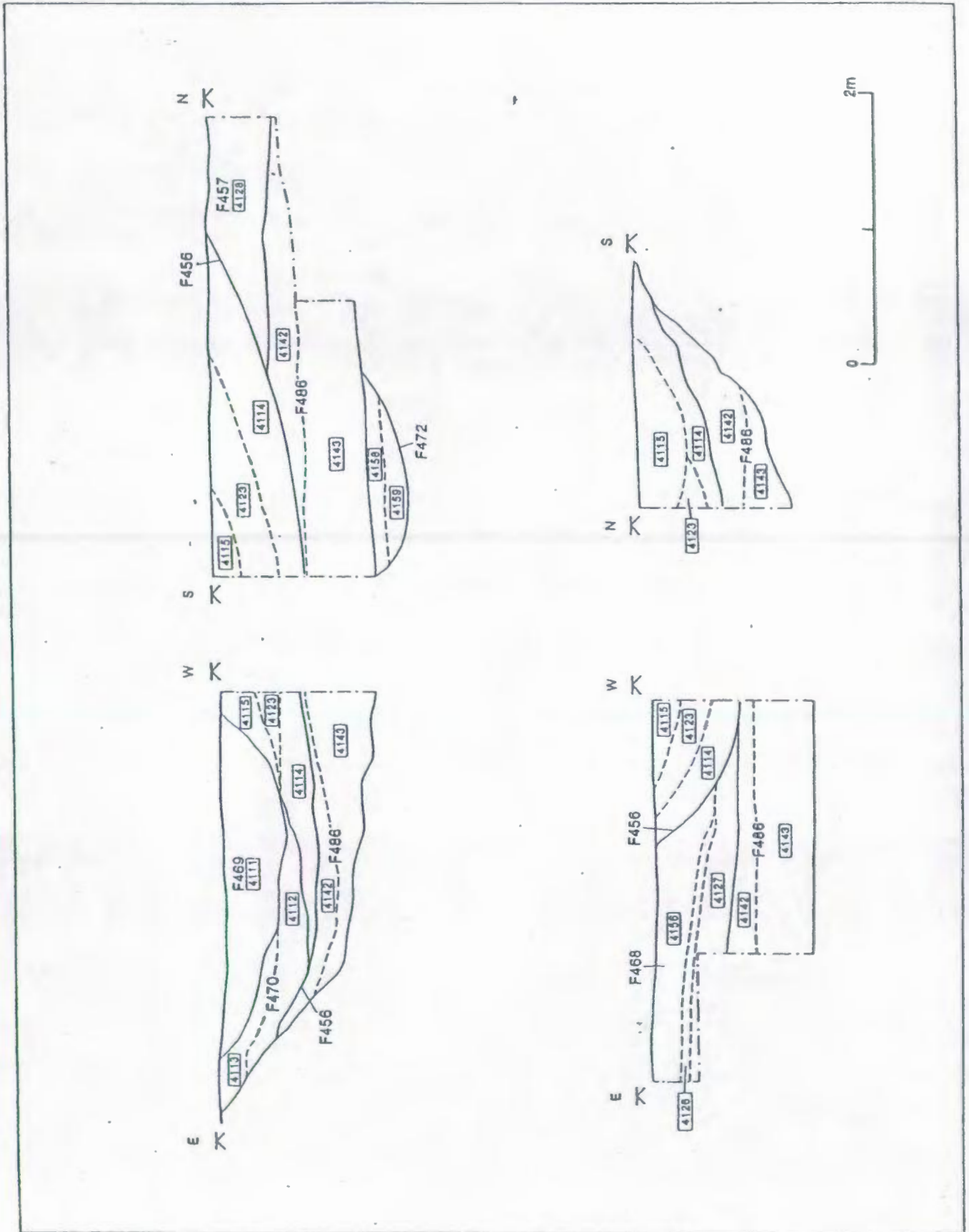


Fig. 7. Section 1

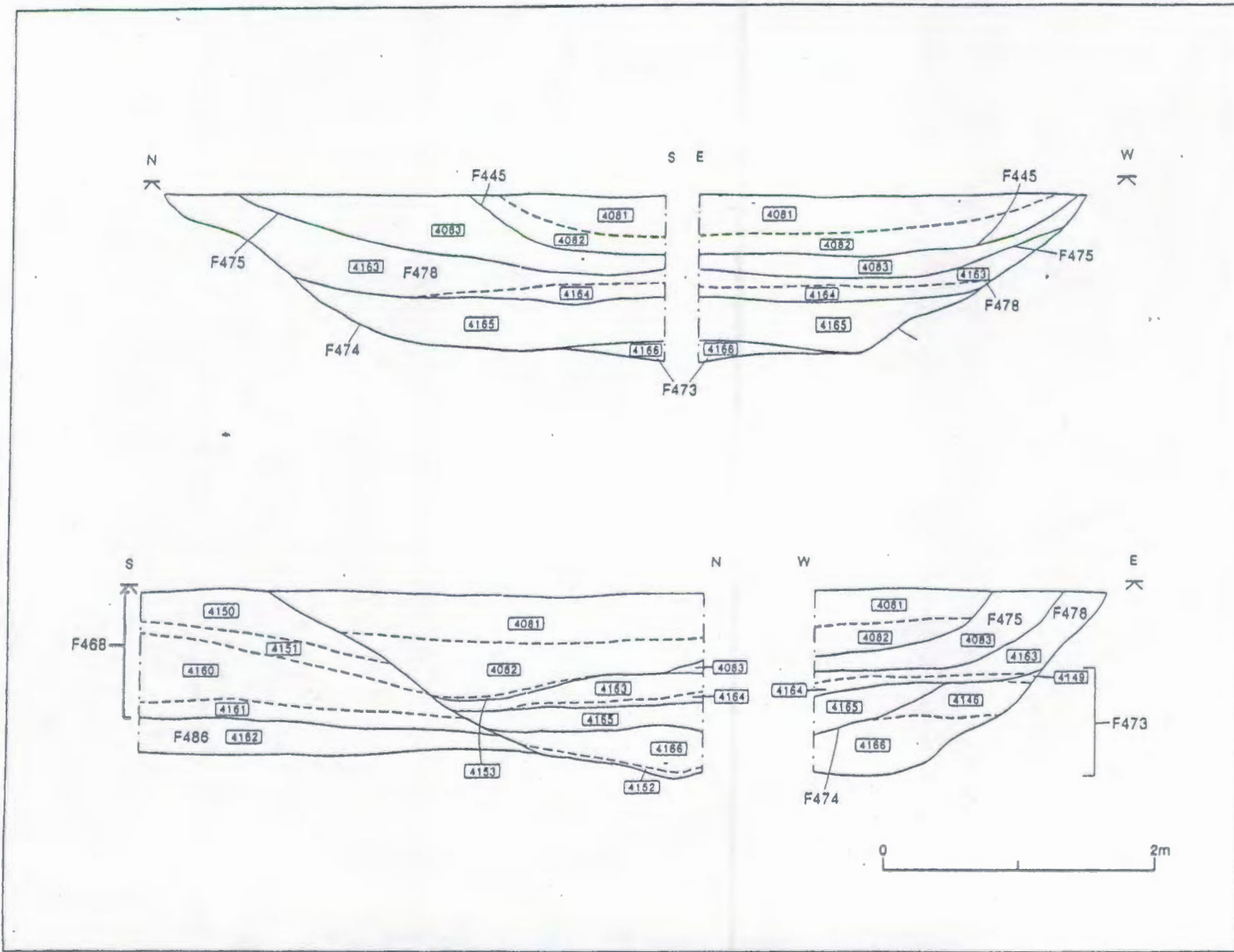


Fig. 8. Section 2

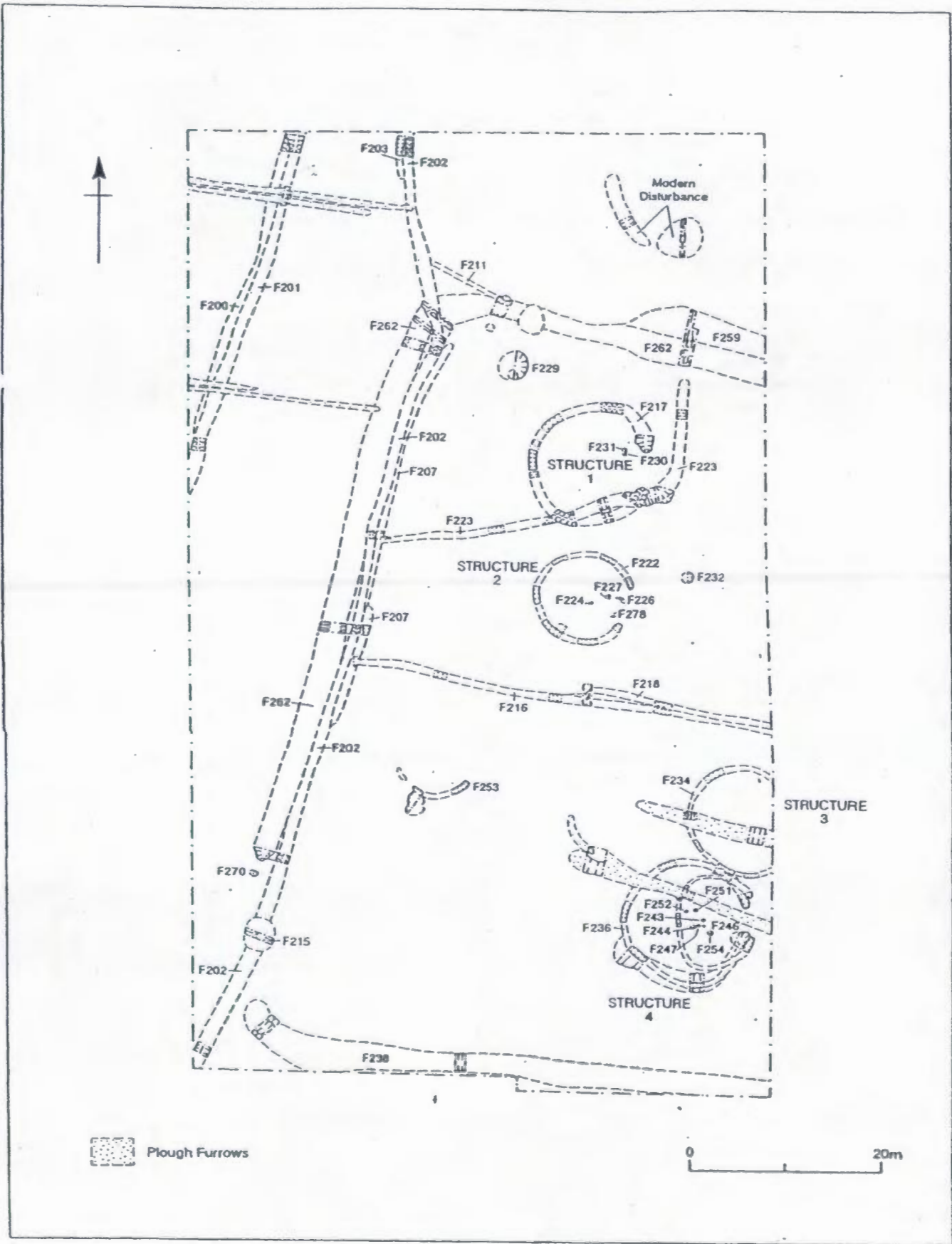


Fig. 9. Post Excavation Plan of Area B

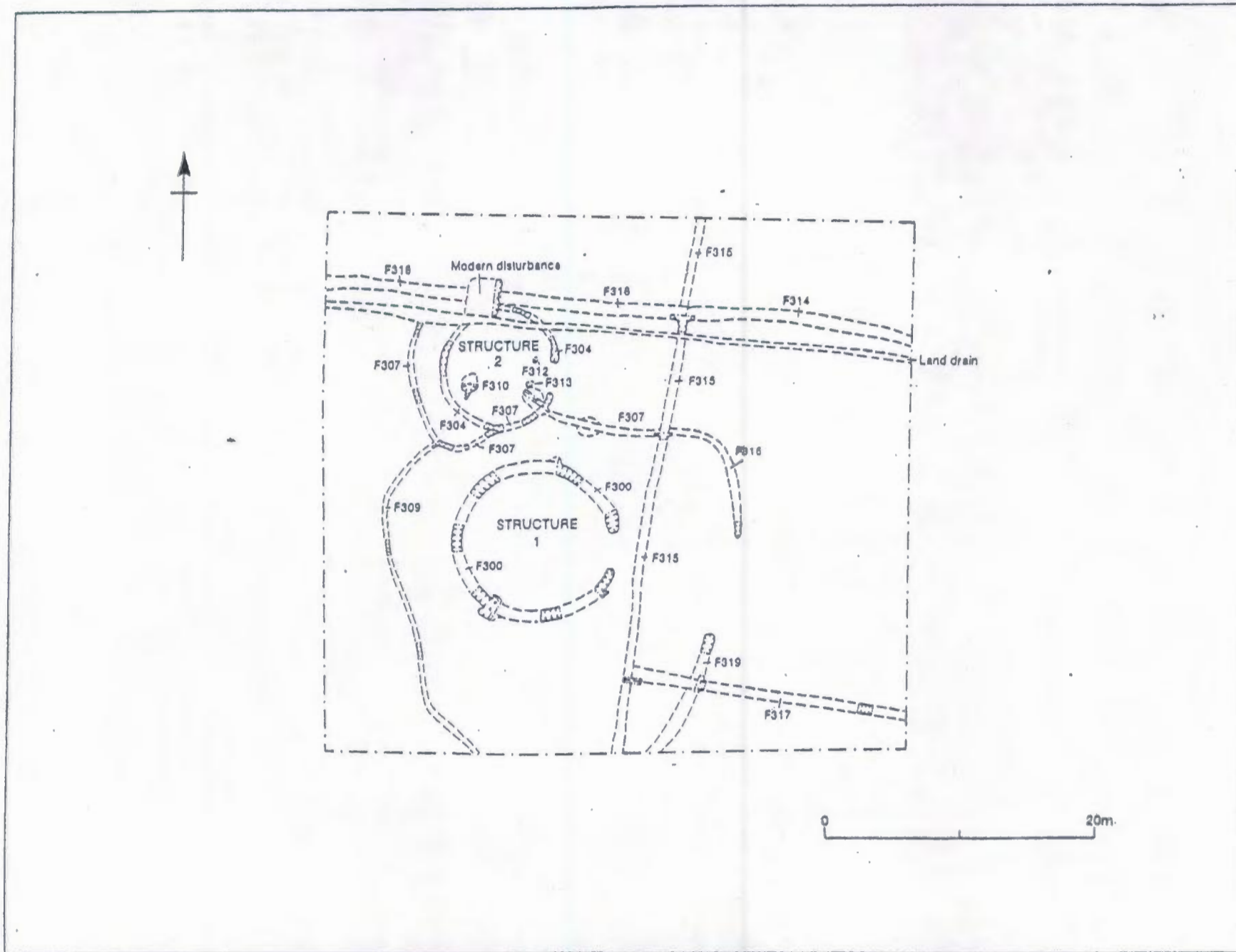


Fig. 10. Post Excavation Plan of Area C

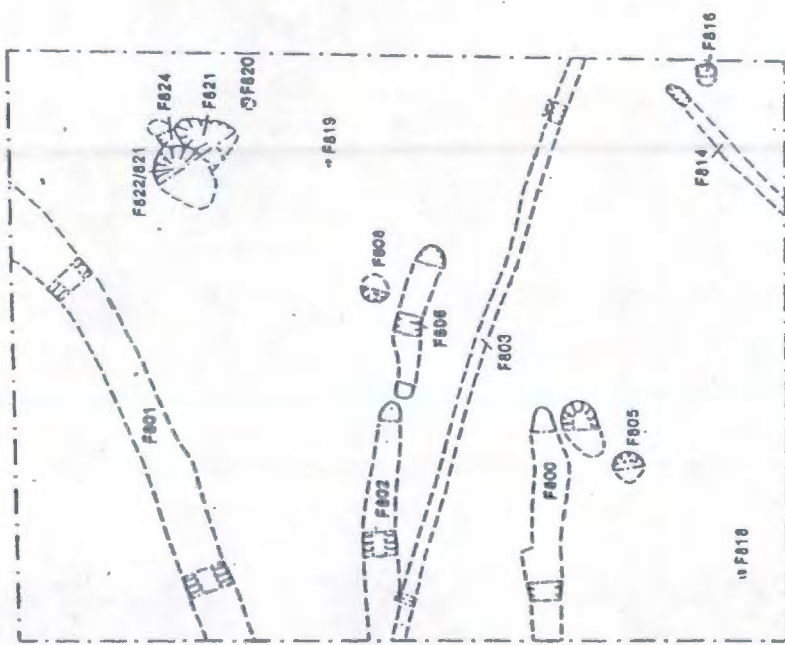


Fig. 11. Post Excavation Plan of Area F

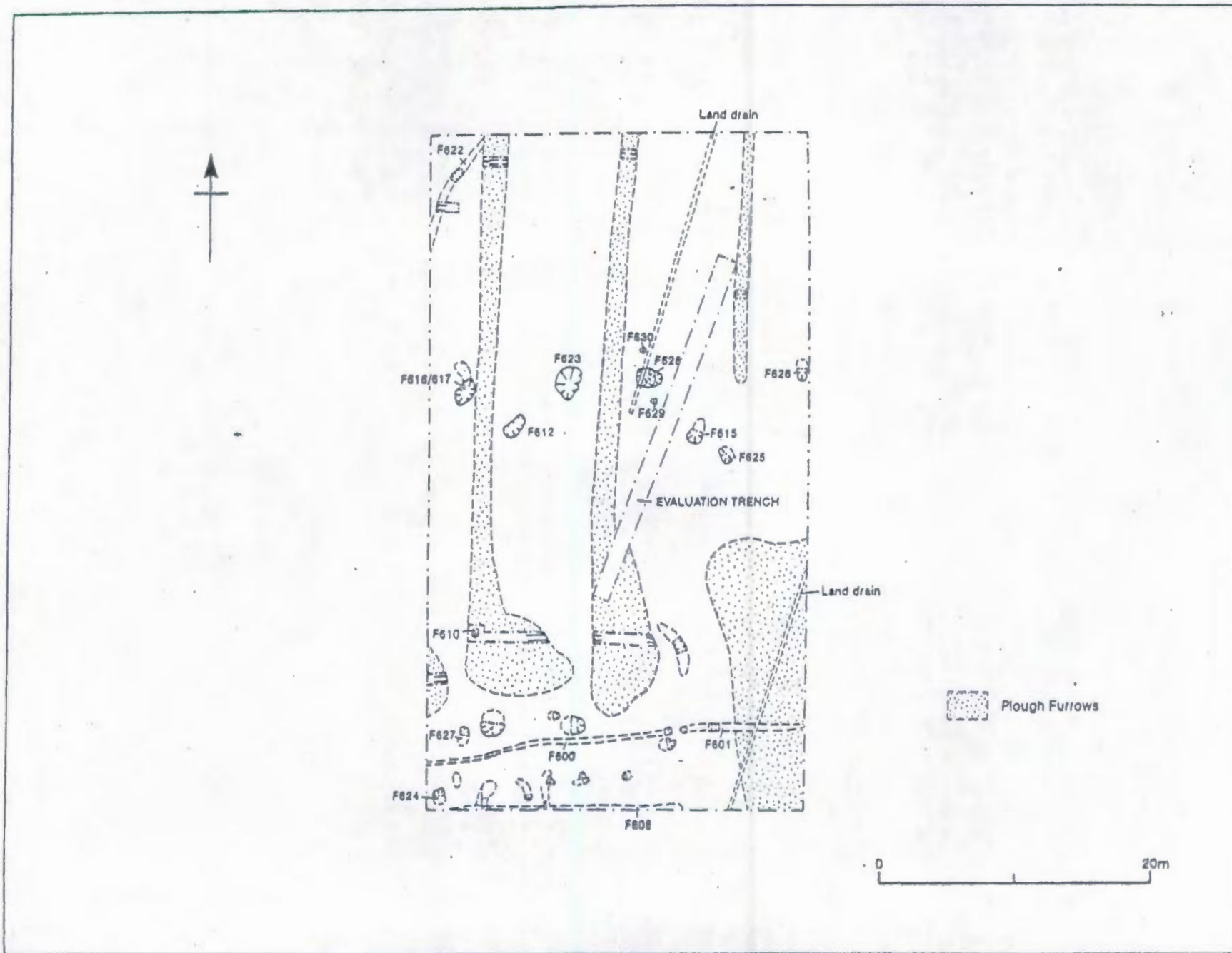


Fig. 12. Post Excavation Plan of Area R

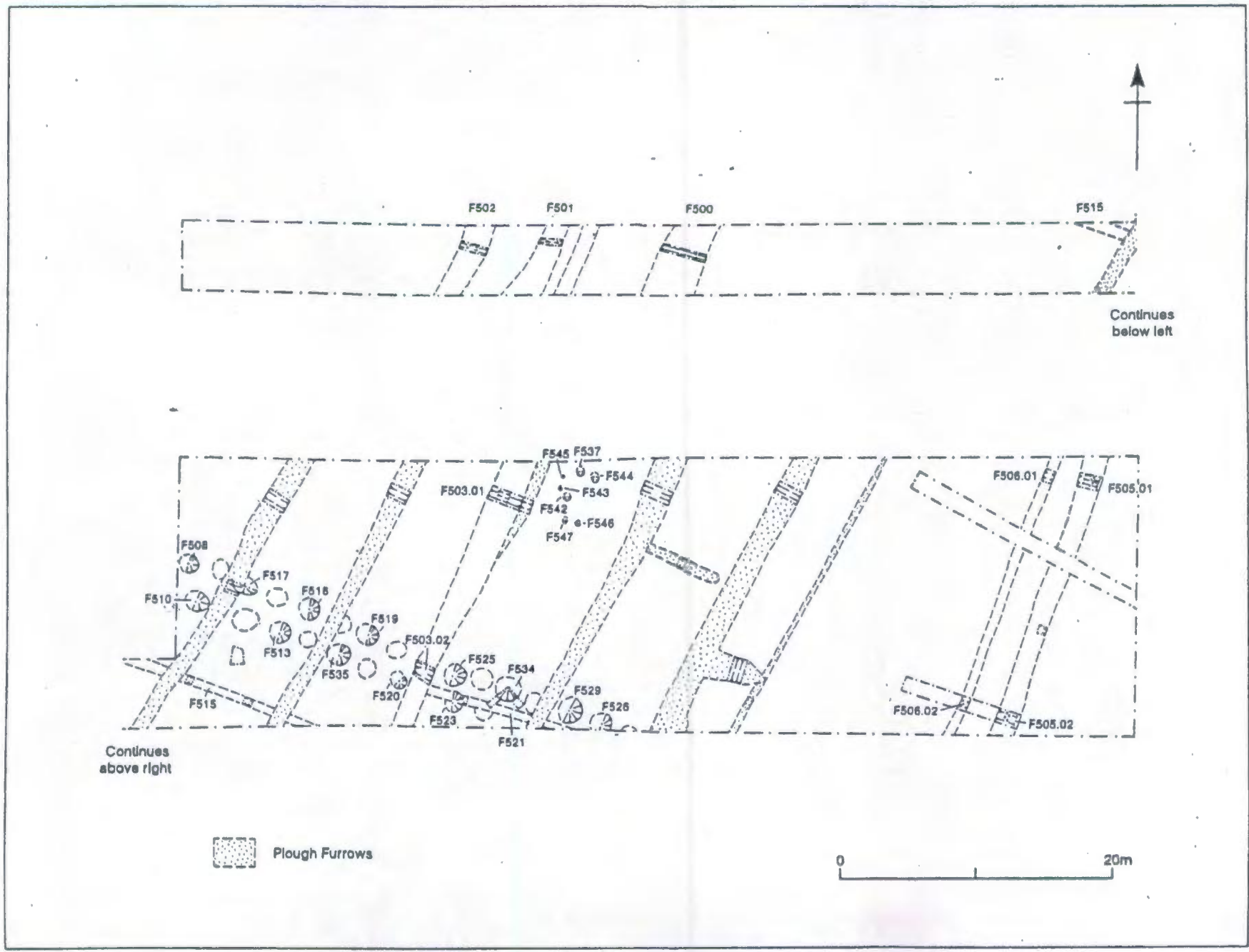


Fig. 13. Post Excavation Plan of Area S

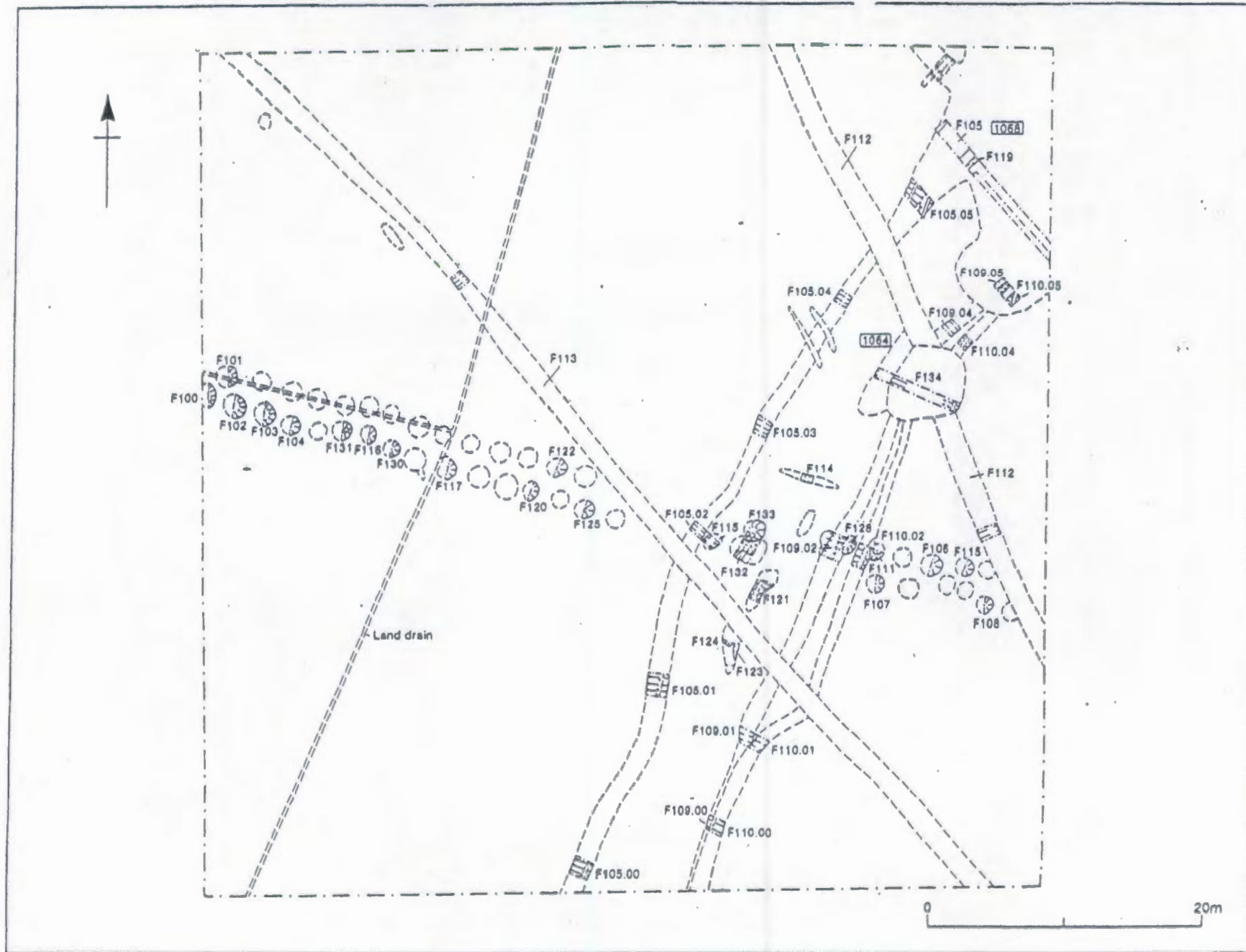


Fig. 14. Post Excavation Plan of Area T

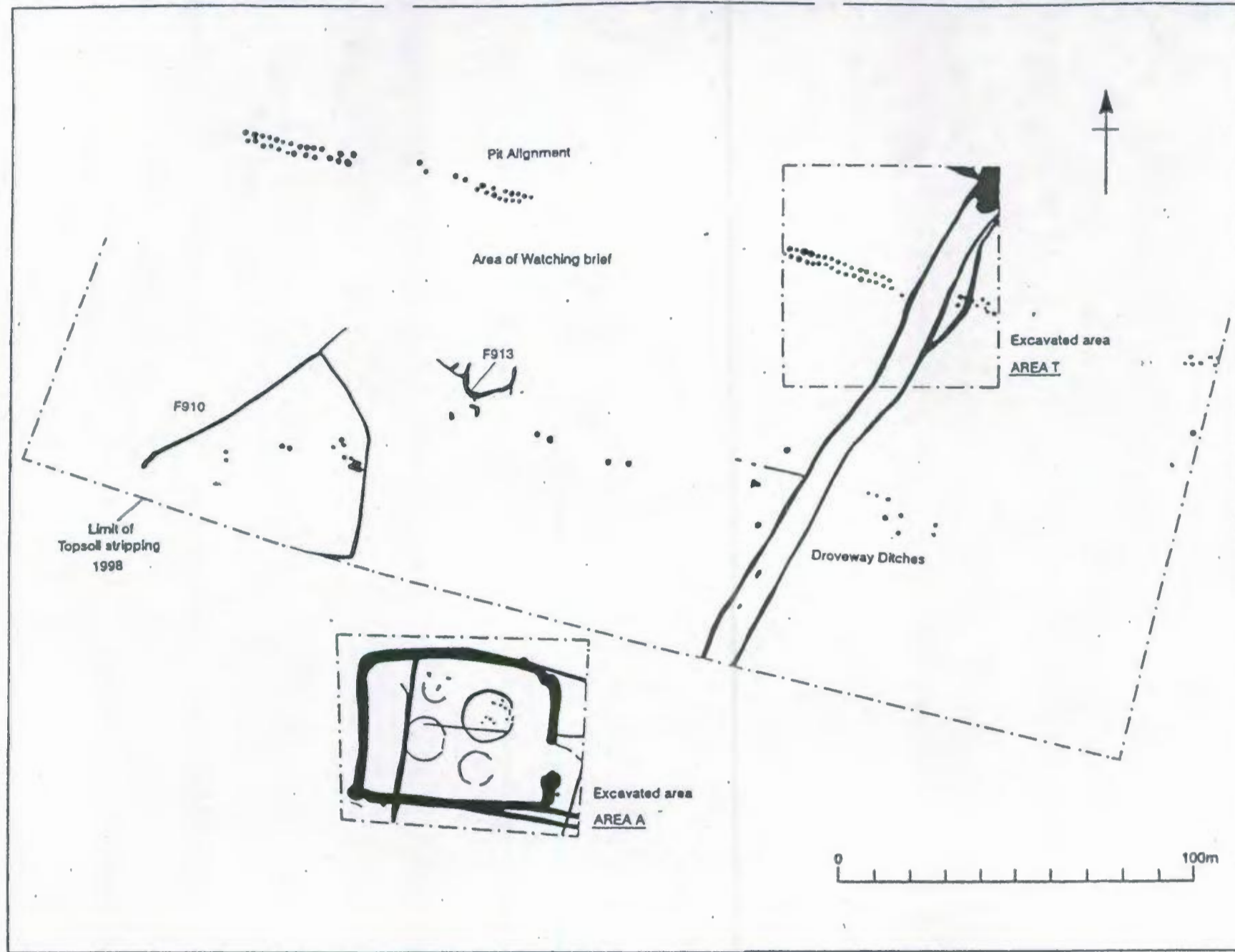


Fig. 15. Principal Features Recorded During Watching Brief

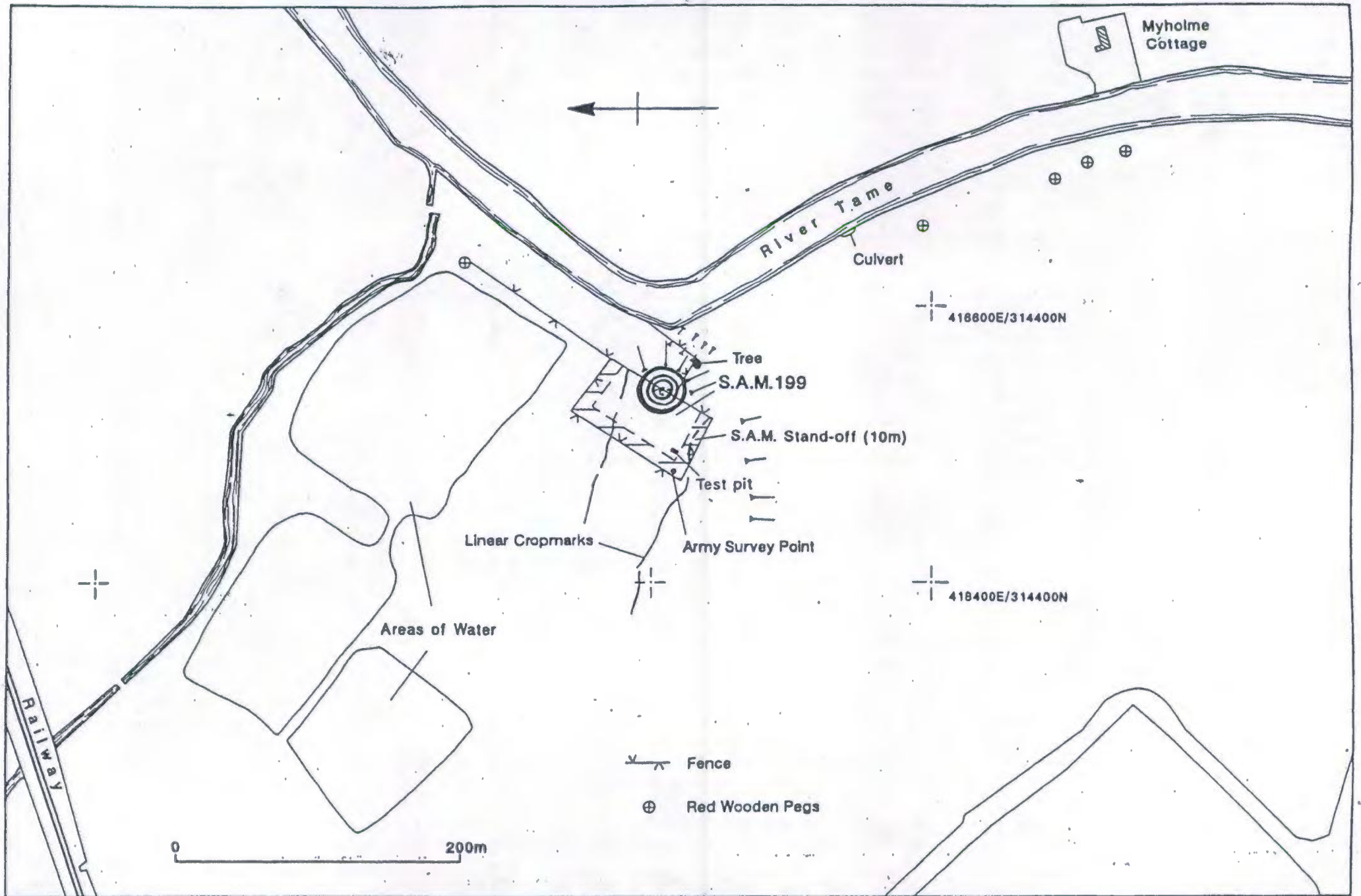


Fig. 16. Detailed Plan of National Arboretum Site



Plate 1. Area A, viewed from south-east



Plate 2. Area B, viewed from the north



Plate 3. Area B, Structure 2, viewed from the east



Plate 4. Area C, viewed from north-east



Plate 5. Area T, viewed from the south-east



Plate 6. Beaker, *in situ*, from Area R



Plate 7. Pit F526, Area S, viewed from the east



Plate 8. Pit Alignment, Area S, viewed from the west



Plate 9. 1995 Cropmark Photograph ,© Crown copyright. RCHME, produced courtesy of Royal Commission on the Historical Monuments of England