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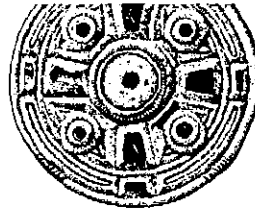
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Archaeological Field Unit

## Excavation of a Romano-British Settlement on the Needingworth Bypass

D E Schlee

99

1995

**Cambridgeshire County Council**

Report No. 99

*Commissioned By*

*Transportation Department, Cambridgeshire County Council*

**Excavation of a Romano-British Settlement  
on the Needingworth Bypass**

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1995

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*Report No 99*

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## SUMMARY

*Evaluations and excavations were undertaken by the Archaeological Field Unit of Cambridgeshire County Council from 5/10/94 to 28/10/94 in advance of, and during construction of a bypass to the north of Needingworth village (NGR TL3273-3373), by the Cambridgeshire County Council Department of Transportation. Excavation was concentrated to the south of a known cropmark complex (SMR ref 08275) to ascertain whether these features continued into the line of the bypass. It was confirmed that there were features within the road corridor, masked beneath a layer of colluvium from the slope to the north. The excavation uncovered two possible linear boundary ditches and a portion of a circular or polygonal palisade ditched enclosure with associated postholes and linear features. Burnt features suggest possible industrial activity, in the area before the palisade ditch was dug, while artefactual and environmental evidence suggests domestic activity. Although only a small part of the area within the palisade ditch was excavated it would appear to have been a domestic enclosure. The excavated features seem likely to be associated with the features visible as cropmarks to the north, though no direct link between them was discovered. Pottery from the site suggests a Romano-British date for the excavated features, although the cropmarks to the north may incorporate features from other periods.*

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## **1. INTRODUCTION**

Proposals for a bypass running north of Needingworth (see fig.1) were presented to the County Archaeologist's Office (CAO) in 1988. A recommendation was made then for archaeological works, beginning with a fieldwalking survey. Following this, in line with road scheme guidelines of the CAO, a series of further investigations would be made as appropriate.

No further action was taken until 8th September 1994 when the Archaeological Field Unit of Cambridgeshire County Council (AFU) was contacted. Dr. Tim Reynolds of the AFU, after consulting the SMR and Bob Sydes of the CAO, noted the presence of cropmarks and stated that an archaeological evaluation would be required. Unfortunately, due to late notice, evaluation of the site had to be combined with rescue excavations as this would be the last opportunity to investigate. Excavations supervised by Duncan Schlee (AFU) took place from the 5th of October to the 28th of October, during construction of the bypass.

## **2. TOPOGRAPHY and GEOLOGY**

The route of the bypass runs for approximately 2400m over gently sloping arable land to the north of Needingworth village, on a spur of land jutting out into the Ouse Valley (see fig. 1). The spur is cut by a small tributary of the Ouse which is crossed by the bypass towards its western end (see fig.2). This tributary, now constrained in an artificial channel (Heath Drain), is surrounded by alluvium. The route crosses a variety of geological regimes. Beginning at its south-western end, these are Jurassic (Oxford) clays (c. 8.60m AOD), alluviation in the vicinity of Heath Drain derived from the former water course (minimum height 6.40m AOD), and rising again to the east, Oxford and Ampthill clays (maximum 12.11m AOD), dipping down to 9.58m AOD at the eastern end of the route.

## **3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND**

The Cambridgeshire County Council Sites and Monuments Record (SMR) includes a complex of enclosures showing as crop marks (SMR 08275), slightly to the North of the bypass route. These cropmarks lie on the crest of a low rise. As this rise slopes gently down to the south, the cropmarks end, but it is uncertain whether they finished at this point or are continuing, obscured by colluvium washed off the slope (see fig. 2). It has been suggested that these cropmarks represent various settlement phases, including a possible villa compound defined by the double ditches forming the limits of the site.

A number of stray finds of Iron Age and Romano-British pottery have been found during gravel extraction in the immediate vicinity of Needingworth village (SMRs 00881, 03632, 03632a, 03734 and 03735).

Although there is no record of previous archaeological fieldwork in the immediate area under threat from this development, at the same time as this excavation, the Cambridge Archaeology Unit (CAU) undertook evaluation excavations at the ARC gravel quarry at Bluntisham, south east of Needingworth. These revealed evidence of Neolithic and Bronze Age activities, and Romano-British field ditch systems (Evans, C. 1995).

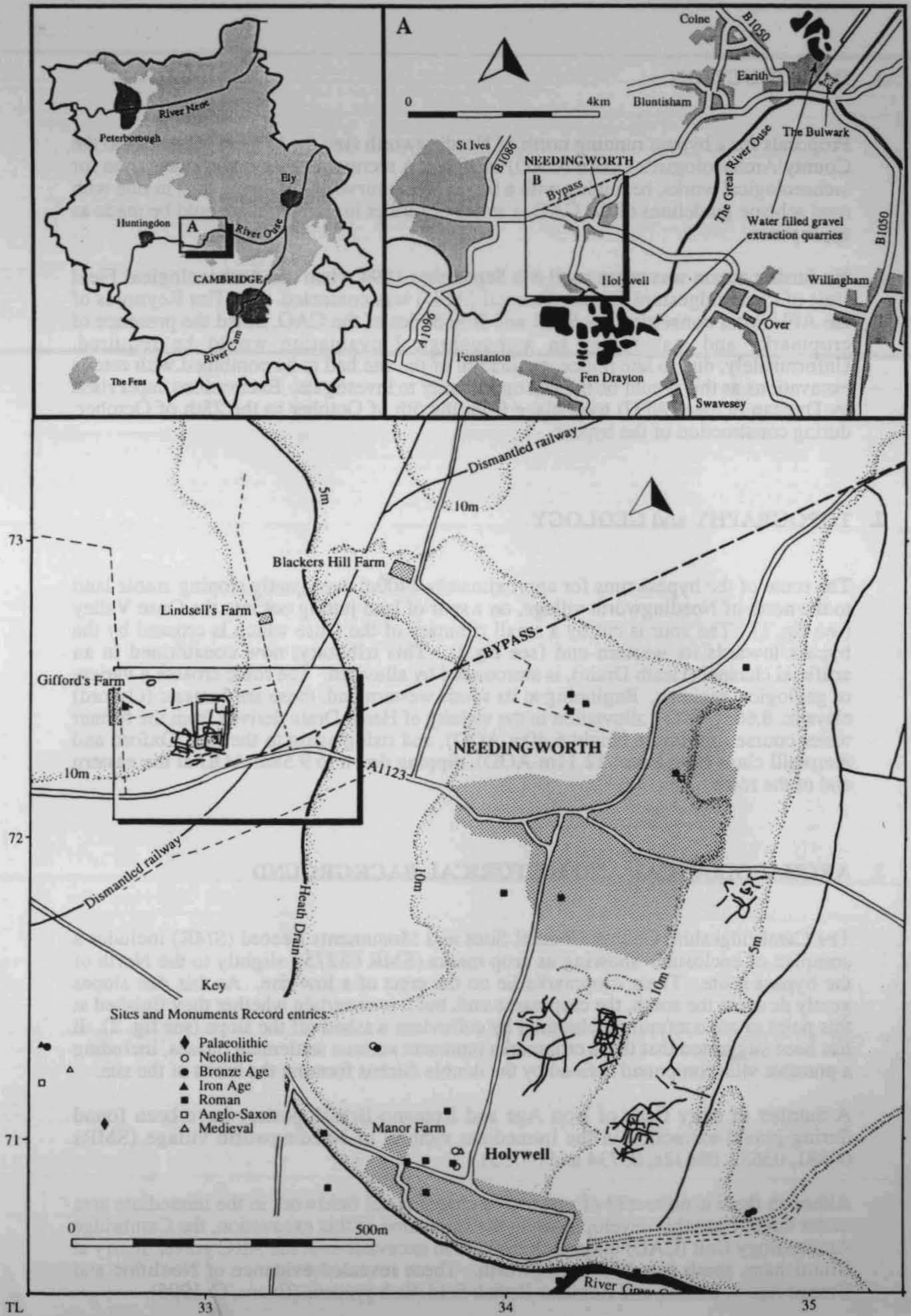


Figure 1 Site Location Plan

#### 4. LANDSCAPE MODEL

Settlement in the area, dating from prehistoric times to the present day, has favoured the south-facing slopes of the Ouse Valley in locations above the flood plain which are not liable to flooding. Such locations give access to seasonal pasture and woodlands both below and above the settlement locations and still allows cultivation of the lighter gravel terrace soils. The cropmark complex suggests that this area was indeed settled for such reasons at least during the Romano-British period.

Archaeological work along the route would generally expect to uncover evidence of field systems and low intensity land use forms (such as hunting, etc.) within this area associated with any nearby settlement. In addition to this, there are two specific areas where archaeological features might be expected to occur. These are south of the complex of crop marks close to the route at its western end, and the possibility of evidence for settlement or industrial activity hidden beneath the alluvium in the vicinity of Heath Drain.

#### 5. METHODS AND CONSTRAINTS

Aerial photographic rectification and interpretation was undertaken by Rog Palmer and Chris Cox of Air Photo Services, Cambridge, from air photographs held by the Cambridge University Collection of Aerial Photographs and the National Library of Aerial Photographs, Swindon (see appendix B).

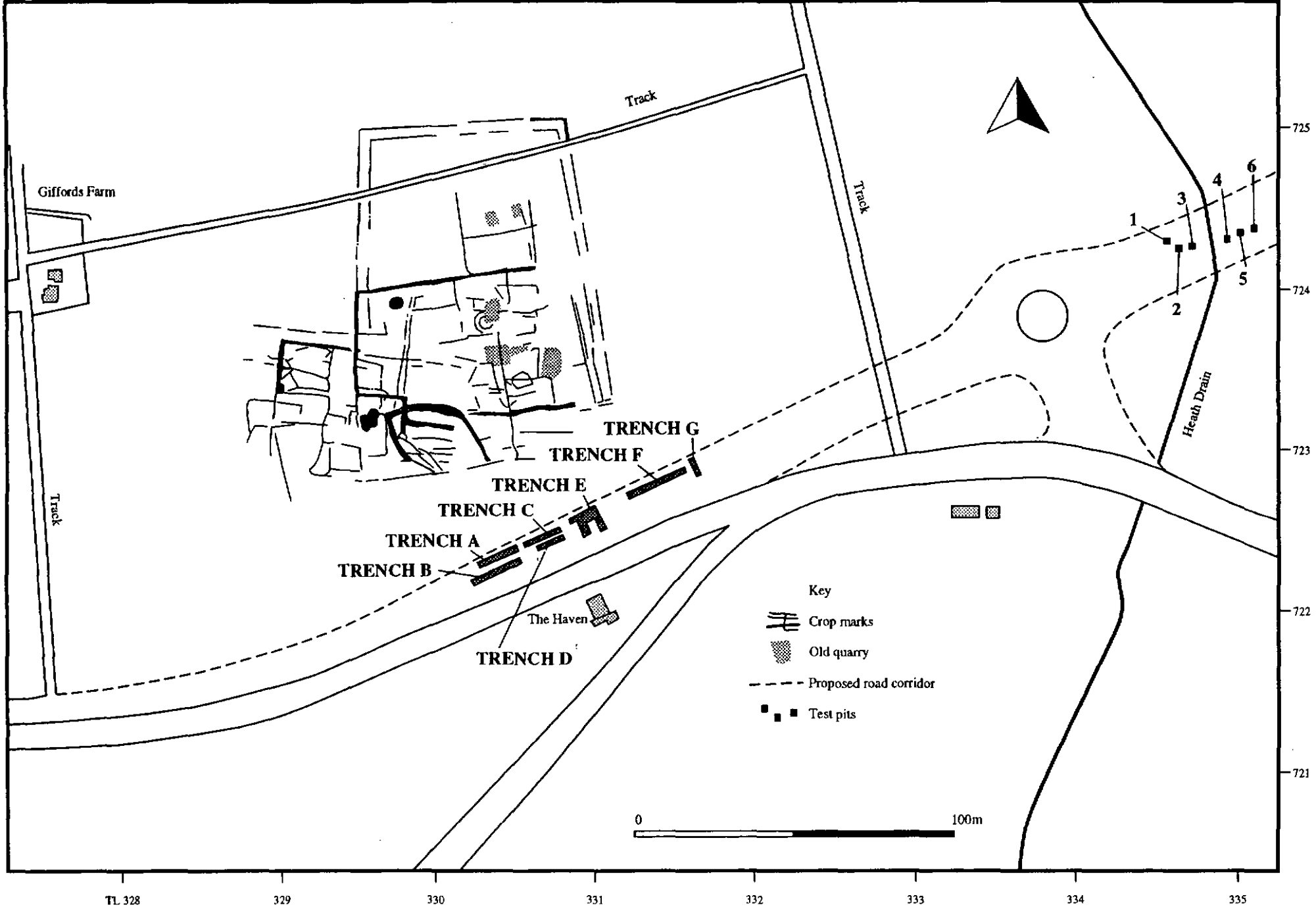
Geophysical survey of the area to the south of the cropmarks was deemed inappropriate since results are often inconclusive on clay subsoils. In addition, the proximity of the site to the A 1123, and debris within the ploughsoil from the line of a disused railway would have obscured any underlying features. A fieldwalking survey along the route of the bypass was undertaken on September the 16th by a team from the AFU led by Niall Oakey.

Trenching was concentrated to the south of the crop marks at the bottom of the slope (see fig 2) in order to ascertain whether the cropmarks, although not visible within the road corridor, did in fact continue southwards, masked by colluvium washed off the slope. In addition, it was intended to monitor the stripping of topsoil along the length of the route to record any features that might be encountered.

A series of seven trenches with a total length of approximately 300m, were dug within the road corridor, using a tracked 360° excavator with a toothless 1.50m wide bucket. The trenches were one bucket's width unless significant archaeological features were encountered, in which case the area was widened to enable better understanding of the character of the deposits. In the event however, significant concentrations of features were only encountered in trench E where an area approximately 14m by 11m was exposed (see fig 5). The area opened was limited by the presence to the east of overhead power lines and to the south by the need for access for the excavator and an area to dump spoil.

In addition, six test-pits were cut around Heath Drain, to establish whether alluviation was obscuring possible features associated with the watercourse (see fig 2). Topsoil removal along the length of the road corridor was monitored occasionally but insufficient soil was removed for any features that may have been present to be seen.

Figure 2 Trench location plan





Trenches were cut to a depth of approximately 0.5m. Roughly 0.35m of this was modern plough soil. Below this, another 0.15m was removed before archaeological features became apparent. This layer was interpreted as colluvium and appeared to seal all the archaeological deposits. Both layers were removed as **200**. Clarity of features was generally poor, with low, bright, autumn sunlight making it difficult to see colour differences. In addition, numerous ceramic field drains and mole drains were encountered running north-south and occasionally east-west, obscuring archaeological features. Risk of flooding the trenches by damaging the drains, prevented machining down to a level where features could be more clearly distinguished. Despite this, the trenches did rapidly fill with water, so careful excavation by hand could only be undertaken in trenches A and E, which contained the only clearly discernible features and were therefore given priority.

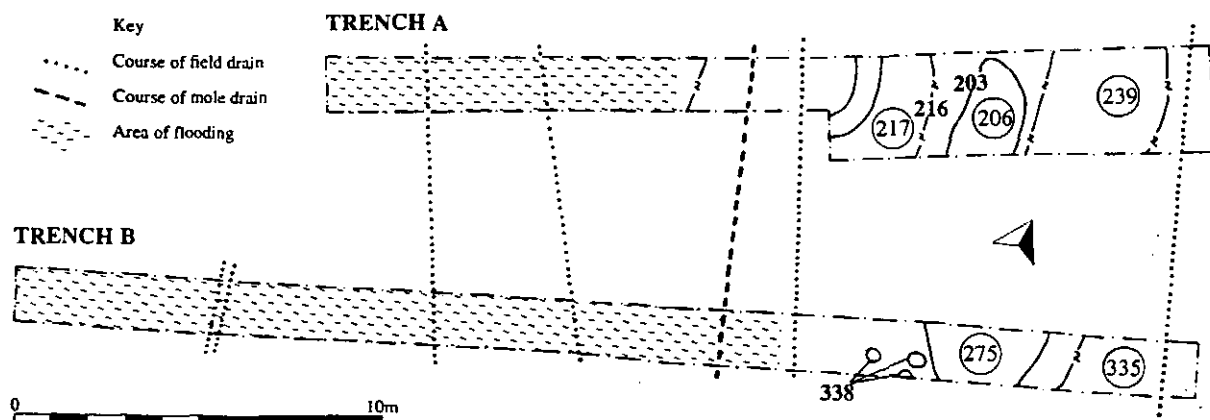
It was often difficult to distinguish the outlines of features prior to excavation because of the similarity in appearance between archaeological deposits and the natural clay. A pre-excitation base plan of features was started but abandoned after the main features had been plotted since conditions made it impossible to distinguish features clearly. Instead, features were added to the base plan as they were excavated (see fig. 4). Large linear features were sectioned to obtain profiles, while smaller features were excavated completely, so as to clarify their true shapes and to maximise the recovery of finds. Primary fills of features were often very difficult to distinguish from the natural clay into which most were cut.

## 6. RESULTS

### 6.1 Trenches A and B

At the east end of trench A, three apparently linear features running approximately north-south were visible prior to excavation (see fig. 3). Cut **203** proved possible to excavate, largely due to the fairly frequent animal bones and fragments of pottery within the otherwise indistinguishable fill. It was found to be an irregular linear shallow depression 0.26m deep and 1.8m wide. This feature was also apparent in Trench B as **275** but there was not enough time to excavate before the trench became flooded.

Box sections were dug to obtain profiles of the remaining features **216** and **238**, but these proved unhelpful since edges were very uncertain. It seems likely that what appeared to be linear features were in fact pockets of earlier colluvium or possibly remnants of midden deposits filling undulations in the top of the natural clays below the present day plough zone.



*Figure 3 Plan of Trenches A and B*

## 6.2 Trench E

Initially Trench E was cut as a single bucket's width "T" shaped trench. When it became clear that there were significant archaeological features present the trench was expanded to form an open area approximately 11m by 14m. In this area approximately one quarter of a circular or subcircular enclosure ditch was revealed with structural features within the enclosed area, and a variety of linear features, post holes, and burnt areas surrounding the enclosure ditch (see fig. 4). Although the features clearly continued to the east, overhead power lines prevented further machining to ascertain their full extent. It seems, however, that the features are fairly localised since there were none apparent in trenches C and D to the west or F and G to the east.

Trench E revealed sufficient features to suggest that there is continuity with the cropmarks to the north, but since trenching was restricted to the road corridor, it was not possible to actually link the two areas. The main features consisted of two parallel linear ditches **221** and **227** 0.90m apart, running approximately north-south. Each was 1.80m wide and up to 0.80m deep. Differences in their fills suggested that they may not have both been open at the same time. To the east of these, roughly one quarter of a circular ditch complex (overall feature no. **270**) was exposed, with a possible entrance half way along its length (just to the east of postholes **240** and **281**). This ditch was generally 1m wide at the surface, with a near vertical outer face. Its inner edge stepped inwards at a depth of about 0.35m, to form a shelf before dropping again to form a slot 0.40m wide and 0.90m deep from the surface. In profile this ditch, with its deep narrow slot, suggests that it may have contained upright posts, forming a palisade (see fig. 7). Cut **289** runs across the possible entranceway, but is narrower than the rest of the palisade ditch and appears to be a different feature. It may be the foundations of an entranceway structure, or evidence of the entrance having been blocked up at some stage.

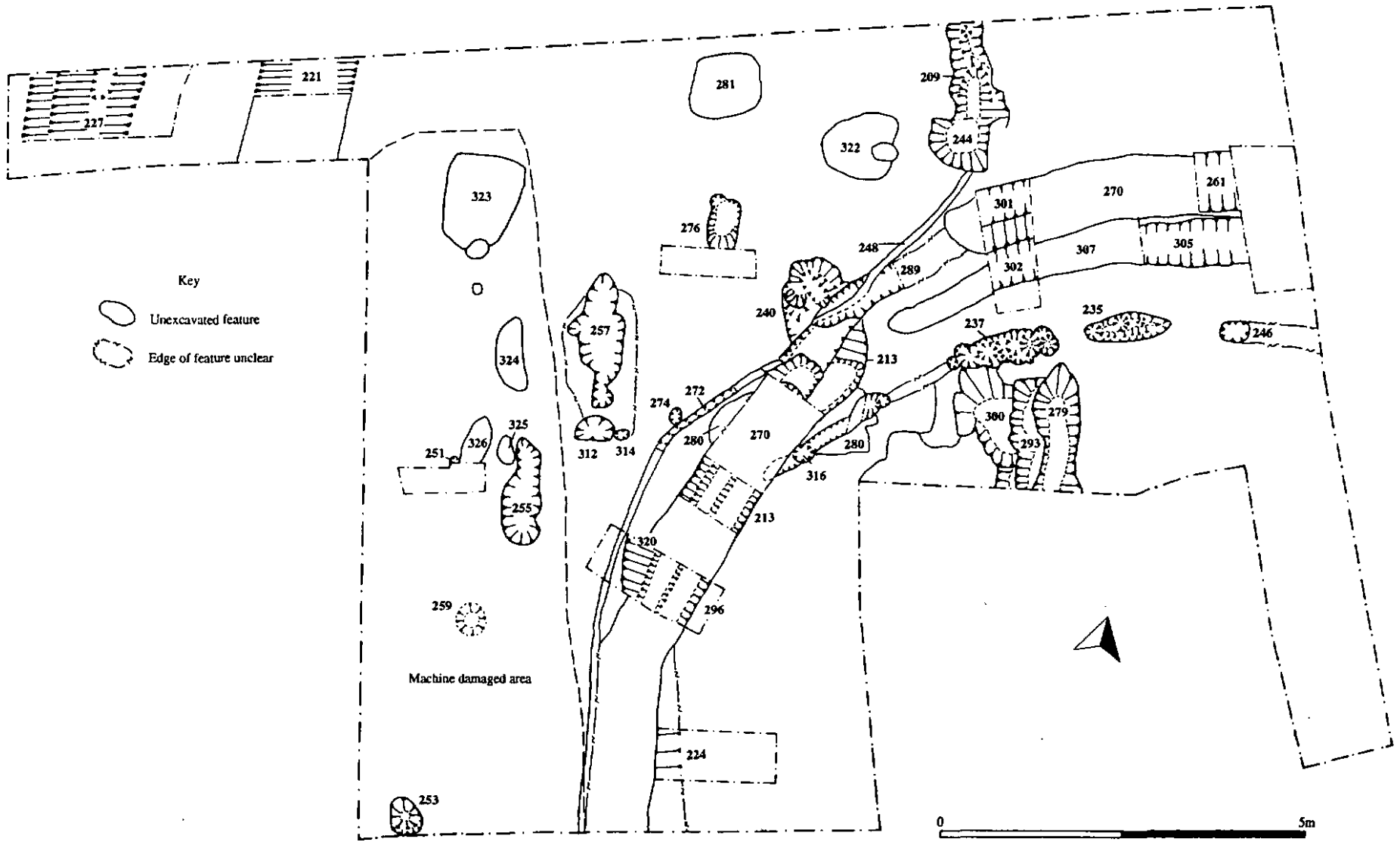
Within the enclosed area, a less substantial ditch **302/305** 0.70m wide and 0.40m deep, ran parallel to the main ditch terminating in the vicinity of the entrance way. Just south of this was a slightly curved, broken line of intercutting postholes **246**, **235**, **237**, **316** (see fig. 4). This may have been a structural wall, or a fence-line associated with the entranceway into the enclosure. Immediately south of this was the terminal of a north-south ditch **279** cutting dumps of redeposited natural within **293**, **300** which may represent levelling-off of the ground within the enclosure.

Outside the circular ditch ran an irregular curvilinear slot **272/248** interpreted as a fence-line. This respected the outside curve of the palisade ditch before appearing to head off in a north-easterly direction close to the entrance. Also around the outside of the palisade ditch were several post holes **276**, **312**, **244**, **274**, **259**, **253** and the terminal of another north-south ditch **209**.

Four features that contain evidence of burning were also excavated. Two of these **255** and **256/257** are discrete features, probably the site of fires or hearths, while the other two, a pit **320** 0.55m deep and a dump of burnt clay and charcoal **280**, are both cut by the palisade ditch. Linear feature **224** is also cut by the palisade ditch. These features represent an earlier phase of activity at the site.

Other possible features along the northern edge of Trench E were not excavated due to increasingly sodden working conditions. In addition, the machine excavation at short notice, of a duct trench across trench E, for diversion of the overhead power lines, effectively prevented careful excavation of a 3m wide strip just west of the palisade ditch. This area included two apparently rectangular cuts which may have been pits for quarrying clay, and other unclear pits or spreads of disturbed natural. Excavation of these areas would have increased our understanding of the area around the enclosure and may have helped to shed light on the nature of the site as a whole.

Figure 4 Plan of Features in Trench E

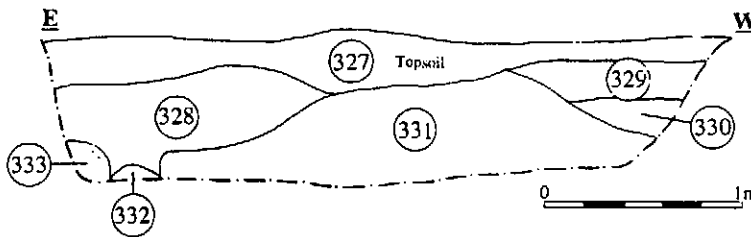


### 6.3 Trenches , C, D, F, and G

These trenches were not excavated since they appeared not to contain archaeological features. Time constraints meant Trenches A and E were given priority and it was not possible to check the other trenches were devoid of features before they became flooded.

### 6.4 Test Pits 1-6

Three test pits were machine dug on either side of Heath Drain (see fig 2) to ascertain whether there was any archaeology beneath alluvium from the water channel. In the event, although the illustrated section (below) is suggestive of cut features and truncated deposits, they produced no evidence either of alluviation or archaeology, with natural, undisturbed deposits of orange gravel **328**, natural clay **331** and sandy clay **329**, occurring directly below the plough zone. The gravels are probably derived from early deposition events of Heath Drain, while grey clay **331** is the equivalent of natural **222** in the main excavation trenches.



*Figure 5 Section through Test pit 2*

## 7. FINDS

The quantity of finds from the site as a whole was small. The potsherds recovered have been spot dated to the third or fourth centuries AD. They consist largely of Nene Valley Colour-coated ware, Harold ware, and Grey ware storage vessels and table wares. Some fragments were small and abraded, while others were larger with fresher breaks, indicating differences in their depositional history. In addition to the pottery, relatively large quantities of animal bone and some oyster shell were recovered. Charred cereal grains were present in the primary fills of some features suggesting that crop processing was being carried out at the site before the construction of the palisade ditch and its associated features. Several soil samples were taken for identification of charred plant remains and in order to detect possible functions of the burnt features and the economy of the site generally (see appendix A).

Significant quantities of mixed baked or fired clay with some grass and flint tempering were recovered from various features. This material is probably burnt daub but few if any wattle impressions were visible in it. There is no evidence that the daub originates directly from the collapse or destruction of structures within the enclosure, but it might originate from processes or structures in the vicinity prior to construction of the enclosure.

In addition to the burnt daub, some fragments of Roman brick, tile and mortar were recovered. This presumably originates from somewhere nearby, but the small quantities suggest that they may not have come from structures within the enclosure.

Some post medieval artefacts were also recovered, including a fragment of a millstone and some building material. These appear to have been intrusive finds from a layer of dumped soil to the south of the trench which probably got worked into the underlying archaeology as a result of the field and mole drains. Small finds recovered from the site include twenty iron objects, mostly probably nails, two Roman coins, one baked clay spindle whorl, and a fragment of a black shale bracelet.

## 8. DISCUSSION and CONCLUSIONS

Well preserved and varied archaeological deposits were encountered within the road corridor. Though apparently localised around the area of trench E, it seems reasonable to conclude that the features excavated are related to the crop mark complex to the north and indicate that the settlement extends into the area of the road corridor. However, no direct continuation of linear features between the two areas was discovered (see fig. 2). Excavation has revealed the corner of a large, circular or sub-circular enclosure surrounded by a palisade ditch **270**, with a possible entrance way. The post holes within the enclosure may represent the wall of a building or a fence associated with the entrance way (see fig. 4). Features cut by the palisade ditch indicate that there was activity in the area before the enclosure was constructed.

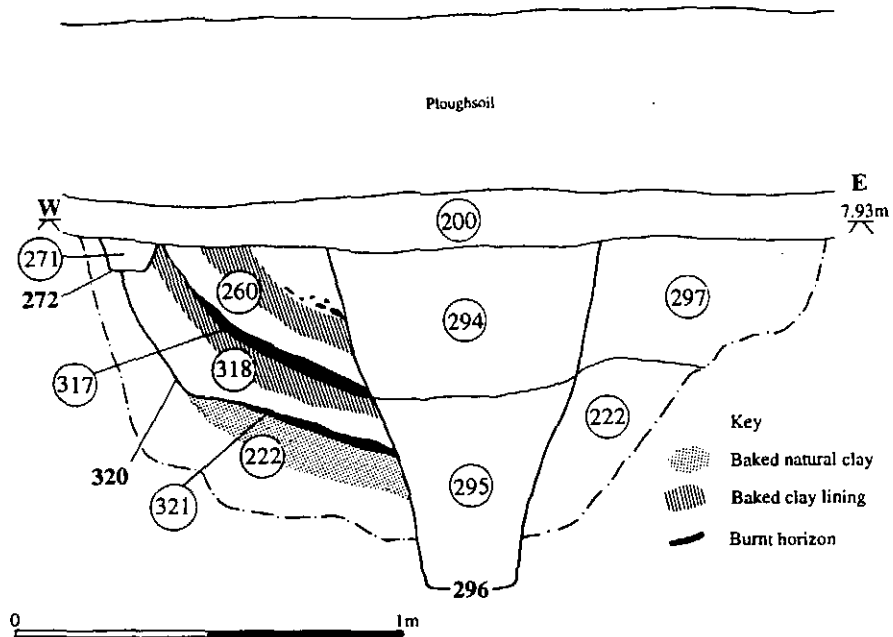
The eastern limit of the cropmark complex is defined by two probable boundary ditches (see fig. 2). It was intended to ascertain whether these parallel ditches extended as far south as the road corridor but overhead power cables between Trenches E and F precluded placing a trench to intersect their projected line. The apparent lack of visible features within trenches F and G however, suggest that the archaeological deposits did not reach this far east. Considering the density of features in Trench E it therefore seems reasonable to suggest that the ditches do extend this far south, forming an eastern limit to the archaeology. Trenches C, and D, do not appear to have contained any archaeological features. Either this area lies outside the compound or else it was an open space within the compound. The two parallel ditches **221** and **227** are not thought to have been open at the same time (due to the differences in their fills) and although sizeable, they do not have the status of major compound boundary ditches. Instead it is more likely they are an internal division of the compound.

The linear features in Trenches A and B do not really attain ditch status, rather, they would appear to be shallow hollows in the ground. Their bone rich fills may be remnants of midden deposits or possibly pockets of manured, cultivated soil.

The main concentration of features occurs in Trench E, within the area of the compound. These features would seem to be contained between the projected line of the double boundary ditches of the cropmark compound to the east, and the parallel internal division ditches **221** and **227** to the west. It is likely that the majority of the cut features at the site are of the same structural phase since they generally appear to respect each others positions and alignments. The obvious exceptions to this are the features which are cut by the palisade ditch. These do not represent an earlier structural phase, but suggest that this part of the site was an open area used for some industrial, or domestic purpose prior to construction of the enclosure. Cut **320** truncated by the palisade ditch, appears to have had some industrial or domestic function. From the depth of penetration of burning, the fills and the natural into which the pit is cut appear to have contained reasonably hot fires and been periodically cleaned out and re-lined with fresh clay before being burnt again. It is possible that deposit **280** is derived from the cleaning out of **320**. In addition, the primary fills of the features believed to be associated with the palisade ditch phase all contain the same or similar fills, with flecks of burnt clay and charred cereal grain mixed with redeposited natural clay. These inclusions may derive from the processes carried out on the site before construction of the palisade. Other burnt features in the vicinity may represent bonfire sites or

industrial activity and although they are not stratigraphically linked to the pre-enclosure phase are presumably associated with it.

Because it is cut by the palisade ditch, the original shape of feature 320 is not known and it is uncertain whether its function was domestic, agricultural or industrial. Analysis of charred plant remains from feature 320 and others, indicates that domestic scale crop processing of wheat was carried out in the vicinity (see appendix A). It is possible that 320 was an oven or corn drier associated with domestic crop processing but it is also possible that the feature had another purpose and crop remains are incidental.



**Figure 6** Section through Palisade Ditch and Feature 320, Trench E

All these features also contain darker secondary fills which defined their approximate outlines in plan. These fills were generally richer in finds and probably represent material washed into the features after the site, or this part of it at least, was abandoned.

The portion of the enclosure within Trench E represents approximately one quarter of its total area. Assuming it was circular, this could suggest the enclosure was over 20 meters in diameter. Unfortunately only a small portion of the area enclosed within the palisade ditch was within the excavation area, so while it was apparent that there were structural features within the enclosure, and possible occupation or open area deposits, it was impossible to ascertain their character and the probable function of the structure as a whole. It seems likely however, that the palisade ditch encloses a small domestic or livestock compound. The artefactual evidence recovered consists mostly of Romano-British domestic table wares and storage vessels, suggesting a domestic environment. The bulk of the ceramics however, derives from the area outside the enclosure, and therefore may originate from domestic structures or activities occurring outside the palisade ditch, beyond the excavated area, rather than being representative of activities within the enclosure itself.

Since there is no evidence to suggest a considerable difference in the dates between these phases of use, it seems likely that the palisade enclosure was built within the villa

compound on land that had previously been an open area used for crop processing and possibly daub production. It therefore may indicate expansion of settlement or change in land use within the compound during its lifetime. Little is certain given the limitations of the excavation and in the event of any further threat to archaeological deposits occurring in the area, further excavation would be desirable to increase understanding of the site.

## **ACKNOWLEDGEMENTS**

The author would like to thank Robert Halliday, Lorrain Higbee, Steve Membery, Charlie Miller, David Mitchell, Melodie Paice, Judith Roberts, Christine Sheard, Ken Welsh, for their work on site. Also Peter Binks of Cambs. Co.Co. Department of Transportation, and Paul Kilk of Costains, Tim Reynolds (Project Manager) Bob Sydes (County Archaeology Office) and Caroline Gait-Utime, Jenny May, and Melodie Paice for the illustrations.

## **BIBLIOGRAPHY**

*Cambridgeshire Sites and Monuments Record (SMR).*

*Evans, Chris. 1995. Investigations at Barleycroft Farm, Bluntisham, Cambridgeshire. Barleycroft Farm-ARC paper no.1.*

*Murphy, P. 1994. A Review of Environmental Archaeology in East Anglia (Draft).*

## APPENDIX A

### THE PLANT REMAINS FROM THE NEEDINGWORTH BYPASS EXCAVATION

Eight samples were taken from contexts in Trench E that were observed during excavation to contain charred plant remains.

- Sample 1 (207) Lower fill of palisade ditch [213]. 20L
- Sample 2 (227) Primary fill of north-south boundary ditch [227]. 20L
- Sample 3 (205) Fill of post hole [276]. 20L
- Sample 4 (256) Fire site deposit. 10L
- Sample 5 (284) Fill of post hole [281]. 10L
- Sample 6 (260) Fill of cut feature [320]. 5L
- Sample 7 (280) Burnt deposit. 10L
- Sample 8 (291) Fill of post hole [240]. 1L

These were processed and sorted for the recovery of charred plant remains and any other inclusions.

- Sample 1 contained
  - 40+ Spelt wheat grains (*Triticum spelta*)
  - 8 Probable Rye grains (*Secale cereale*)
  - 70+ Spelt glume bases
  - 2 Chenopodium seeds
- Sample 2 contained 110+ Spelt wheat grains (*T. spelta*)
- Sample 3 contained
  - 100+ Spelt wheat grains (*T. spelta*)
  - 14 Spelt spikelet forks
  - 60+ Spelt glume bases
- Sample 4 contained
  - 50+ Spelt wheat grains (*T. spelta*)
  - 4 Hazelnut shell fragments
  - 30 Rye grain fragments (*Secale cereale*)
  - 60+ Spelt glume bases
  - 5 Indet. grass seeds
  - 10 Indet. weed seeds
- Sample 5 contained
  - 20+ Spelt wheat grains (*T. spelta*)
  - 5 Emmer wheat grains (*Triticum dicoccum*)
  - 50+ Spelt glume bases
  - 7 Weed grasses
- Sample 6 contained
  - 5 Spelt wheat grains (*T. spelta*)
  - 20+ Spelt glume bases
  - 2 Chenopodium seeds
- Sample 7 contained
  - 20+ Spelt wheat grains (*T. spelta*)
  - 30+ Spelt glume bases
  - 2 Indet rachis fragments
  - 16 Grass seeds
  - 2 Legume seeds
  - 1 Polygonum seed
- Sample 8 contained
  - Spelt wheat grains (*T. spelta*)
  - Spelt spikelet forks
  - Indet. rachis fragments
  - Rye grains (*Secale cereale*)



Quality of preservation of the charred seeds was variable suggesting that the components may have accumulated from several events. Cereal grains are predominantly bread wheat with some Emmer wheat present. There are also some Rye-type grains and other large indeterminate grasses. In addition to cereal grains there are fragments of cereal chaff (spikelet forks and glume bases) and a variety of weed seeds.

The lack of charred straw and rachis fragments (the part of the plant that the grains are attached to) suggests that the surviving plant remains do not represent waste from primary agricultural crop processing (threshing or winnowing). It should however, be noted that the numerous fragments of burnt clay or daub contain impressions of straw fragments. It is possible that any threshing or winnowing waste was used for making daub rather than being disposed of by burning in a hearth.

The grass and weed seeds, glume bases and spikelet forks, and possibly also the Rye-type grains and smaller Wheat grains, probably represent the fraction that is discarded when partially cleaned stored crops are cleaned more thoroughly at a domestic level. This can be done by hand or using a sieve that retains standard grain sizes. The larger charred cereal present in the samples may be the result of cooking accidents or general spillage during processing, etc.

Feature 256 sample 4, appears likely to be a hearth since as well as charred grains, etc. the sample contains burnt bone and lumps of wood charcoal. It is possible that feature 320, with its series of baked clay linings may have had a function associated with crop processing such as a corn drier, though not enough of the feature survived to be sure of its original function or design. Sample 6, taken from the upper fill of this feature did not, however, seem to be particularly rich in plant remains. This may be because the feature appears to have been cleaned out carefully between episodes of use.

While there is always a certain amount of charred plant remains in any sample, the quantity of crop remains from these samples suggests that there was crop processing being carried out in the vicinity prior to construction of the palisade ditch and its associated features. A proportion of the waste products from crop processing on the site have become charred, either in accidents during processing, the disposal of rubbish in fires, or by being specifically used as fuel. When the palisade ditch 270 and associated features were constructed, charred plant remains spread around the area and possibly originating from features 320 and 356 appear to have become mixed with the clay fills packed around posts within the features.

## APPENDIX B

### AERIAL PHOTOGRAPHIC ASSESSMENT

#### Aerial Photographs Examined

Source: Cambridge University Collection of Aerial Photographs

#### Oblique

PW 29	21 June 1955	
BGU 70-72	22 July 1971	
BYA 1-6	24 June 1976	(most informative)

#### Vertical

RC8-CX 173-174	13 May 1979
RC8-EC 133-138	24 March 1982

Source: National Library of Aerial Photographs

#### Oblique

TL3372/1/127-130	
TL3372/2/131-134	11 July 1976

### COMMENTARY

#### Probable Prehistoric Landscape

One site has been photographed obliquely as an archaeological target (field centred TL330723, SMR 08275) within the assessment area. This complex of ditched curvilinear and rectilinear enclosures is located on a slight rise. The site shows as positive marks in a cereal crop indicative of buried cut features. There are slight traces of periglacial cracks in the underlying natural. Some of these, along with possible pitting, may be seen on removal of the topsoil. Deeper soil can be expected down slope from the site (particularly along the road to the south) which *may* mask further archaeological features although there is no direct evidence for ditches continuing into that part of the field.

The site probably represents more than one phase of occupation. The broad-ditched, curvilinear enclosures and associated linear ditches *may* represent an early phase, which was used as a nucleus for later re-development of the enclosure complex and an extension of the double ditched "compound" boundary (see fig. 2).

Adjacent sites (round barrows closer to the River Ouse) suggest occupation in the area from at least the Bronze Age. A double ditched circular feature in the assessment area at TL33037237 may be a ring ditch, but its association with the surrounding ditched features is uncertain. The majority of features seen on aerial photographs within the assessment area are probably Romano-British.

Small, probably hand dug, features are indicative of local quarrying of unknown date.

### Medieval landscape

The majority of medieval agricultural landscape traces in this area are now plough-levelled, and show only as slight height differences or as marks in crop or soil which indicate the former positions of furrows. Presumably there were extensive areas of medieval fields around the village. It is most likely that the field containing the cropmarked features was also covered by ridge and furrow of which no trace survives on the aerial photographs, although parts of furlongs are visible on some of the obliques. Furlongs on the east side of Needingworth appear to stop at a line which probably represents the fen edge in the medieval period (photographs RC-8CX 173-174).

## APPENDIX C

### LIST OF CONTEXTS

<u>Context</u>	<u>Description</u>	<u>Nature</u>	<u>Below</u>	<u>Above</u>
200	Layer	Ploughsoil		249, 268
201	Fill of [202]	Same as 206. Possible ditch fill.	200	[202]
202	Cut	Same as 203,. Irregular shallow linear feature	Not in matrix	
203	Cut	Same as 202. Irregular shallow linear feature.	Not in matrix	
204	Fill of [213]	same as 225, 294 2.5Y 3/1. Dark grey silty clay. Upper fill, possible post-pipe.	see matrix	218, 207, 219
205	Fill of [276]	5Y 5/2. Olive grey, silty clay. Fill of post hole.	249, 269	222
206	Fill of [203]	10 YR 4/1. Dark grey silty clay. Possible ditch fill.	200	[203]
207	Fill of [213]	5Y 5/2. Olive grey silty clay. Lower fill of post hole slot.	204	[213]
208	Fill of [209]	5Y 4/2 Olive grey silty clay. fill of linear feature. Same as 210.	249, 269	[209]
209	Cut	Irregular linear Ditch. Same as [211]. Possible post hole slot.	208	222
210	Fill of [211]	5Y 5/4. Olive grey Silty clay. Fill of linear feature. Same as 208.	249, 269	[211]
211	Cut	Same as [209]	210	222
212	Fill of [221]	2.5 Y 3/1. Very dark grey silty clay. Upper fill of linear, possible boundary ditch.	249, 269	226
213	Cut	Part of [270]	207, 218, 220	260, 223, 280
214	Fill of [215]	5 Y 3/1 Very dark grey silty clay.	249, 269	[215]
215	Cut	Same as [209]	214	222
216	Cut	Linear Feature, Trench A.	Not in matrix	
217	Fill of [216]	fill of linear feature, Trench A.	Not in matrix	
218	Fill of [213]	10 YR 4/1. Dark grey silty clay. Post packing within palisade ditch feature 270.	204	[213]
219	Fill of [213]	10 YR 3/1. Very dark grey silty clay. Post packing on eastern side of palisade ditch 270.	204	218, 207, 219
220	Fill of [213]	5Y 4/2. Olive grey silty clay. Packing within post trench.	219	[213]
221	Cut	Linear Ditch. Possible boundary ditch running n-s.	226	222
222	Layer	5Y 4/3. Olive grey silty clay. Natural clay across whole site.	All	N/A
223	Fill of [224]	5Y 4/2. Olive grey clay within linear feature.	249, 269	[224]
224	Cut	Linear Ditch. Cut by palisade ditch 270.	223	222
225	Fill of [213]	Upper fill of palisade ditch. same as 204.	See matrix	[213]
226	Fill of [221]	2.5 Y 3/2. Olive grey clay.	212	[221]
227	Cut	Linear Ditch west of 221. Possible boundary ditch.	230	222
228	Fill of [227]	10 YR 3/1. Very dark grey silty clay. Upper fill of ditch.	249, 269	229
229	Fill of [227]	10 YR 5/1. Grey silty clay. Secondary fill of ditch.	228	230
230	Fill of [227]	10 YR 5/1. Grey silty clay. Primary fill of ditch.	229	[227]
231	Fill of [233]	5Y 4/2. Olive grey clay. Upper fill of post hole.	249, 269	232
232	Fill of [233]	5Y 4/2. olive grey clay silt.	231	[233]

233	Cut	Lower fill of post hole. Posthole. Part of [246].	232	225, 291, 306, etc.
234	Fill of [235]	2.5Y 3/2. Dark grey brown silty clay. Upper fill of post hole slot.	249, 269	[235]
235	Cut forming linear slot.	Intercutting posthole group associated with [246], [237], [316].	234	225, 291, 306, etc.
236	Fill of [237]	2.5Y 3/2. Very dark grey silty clay. Upper fill of intercutting post hole group.	249, 269	310
237	Cut	Intercutting posthole group forming linear slot. Associated with [235], [246], [316].	236	225, 291, 306, etc.
238	Cut	Linear feature? trench A.	Not in matrix	
239	Fill of [238]	Linear feature? trench A.	Not in matrix	
240	Cut	Posthole at possible palisade ditch terminal, west of possible entrance way.	291	284
241	Fill of [242]	2.5 Y 5/3. Light olive brown silty clay. Fill of linear feature.	249, 269	[242]
242	Cut	Same as [209]. part of linear ditch possibly post hole trench.	241	222
243	Fill of [244]	2.5 Y 4/1. Dark grey clay. Fill of post hole at terminus of ditch [209].	249, 269	[244]
244	Cut	Posthole at terminus of ditch [209].	243	222
245	Fill of [246]	5Y 3/1. Very dark grey silty clay. upper fill of possible group of post holes.	249, 269	[246]
246	Cut	Group of intercutting post holes forming linear slot. Associated with [316], [237], [235].	245	225, 291, 306, etc.
247	Fill of [248]	Mid brown fill of curvilinear fence slot.	249, 269	225, 291, 306, etc.
248	Cut	Curvilinear fence slot	[247]	225, 291,
249	Same as [272]. Fill/layer	10 YR 3/1. Very dark grey silty clay. Occupation layer or upper fill of feature.	306, etc. 200	See matrix
250	Cut	Possible Stake hole.	251	222
251	Fill of [250]	2.5Y 4/2. Dark grey brown clay.	249, 269	[250]
252	Fill of [253]	10 YR 4/2. Dark grey brown clay. Fill of post hole.	249, 269	[253]
253	Cut	Posthole. possibly associated with [259], [312] etc.	252	222
254	Fill of [255]	5YR 4/4. Mottled reddish brown and yellow clay (burnt).	249, 269	[255]
255	Cut	Irregular shallow fire Site.	254	222
256	Layer	10 YR 4/4. Fire site (same as 257)	249, 269	222
257	Layer	2.5 YR 3/6. Fire site (same as 256)	256	222
258	Fill of [259]	5Y 5/2 olive grey silty clay with flecks of burnt clay. Post hole fill.	249, 269	[259]
259	Cut	Post hole. Probably associated with [253].	258	222
260	Fill of [320]	Pale yellow clay mixed with lumps of burnt clay/daub. latest fill of pit.	270	317
261	Cut	Enclosure Ditch east of possible entranceway (Equals 289, 301).	262, 306, 285	260, 223, 280
262	Fill of [261]	10 YR 3/1. Very dark grey silty clay. Fill of enclosure ditch.	See matrix	261
263	Cut	curvilinear enclosure ditch. possibly associated with [261].	264	255, 291, 306, etc
264	Fill of [263]	10 YR 3/1. Very dark grey silty clay. Fill of curvilinear ditch.	249, 269	255, 291, 306, etc
265	Cut	Field drain	Not in matrix	
266	layer	5 Y olive grey silty clay.	270	222

		Possible or redeposited natural.		
267	Cut	Field drain.	Not in matrix	
268	layer	5Y 3/1. Very dark grey silty clay.	200	269
		Possible occupation surface.		
269	layer	2.5Y 4/2. Dark greyish brown clay silt. Possible occupation surface.	268	See matrix
270	Cut	Enclosure ditch.. Feature number for whole enclosure ditch.	See matrix	260, 223, 280
271	Fill of [272]	2.5Y 3/2 very dark grey brown silty clay. fill of fence slot. Same as 247.	249, 269	[272]
272	Cut	Curvilinear fence slot same as [248].	271	255, 291, 306
273	Fill of [274]	10YR 4/1. Dark grey silty clay. Fill of possible post hole.	249, 269	[274]
274	Cut	Posthole possibly associated with curvilinear fence line [272]	273	222
275	Fill	Linear fill? Trench B	Not in matrix	
		Same as (201).		
276	Cut	Posthole, possibly associated with [253], [259], [312], [274].	205	222
277	Fill of [279]	5Y 2.5/1 black silty clay. Upper fill of linear feature.	249, 269	278
278	Fill of [279]	5Y 4/2. Olive grey sandy clay. lower fill of linear feature.	277	[279]
279	Cut	Northern terminus of n-s linear ditch, within enclosure.	278	292
280	Layer	deposit of burnt clay, charcoal. and ash. Truncated by enclosure ditch [270].	[270]	222
281	Cut	Posthole within [240]. Possibly associated with entrance to enclosure [270].	284	270
282	Fill of [283]	Mottled green grey silty clay. Fill. Same as 308.	249, 269	[283]
283	Cut	Part of internal enclosure ditch [302], [305].	282	225, 291, 306
284	Fill of [281]	Fill of post hole associated with possible entranceway.	[240]	[281]
285	Fill of [286]	Equals 306, 262	See matrix	[286]
286	Cut	Linear Feature. Same as [289]	285	290
287	Layer/Fill	Remnant of occupation surface or possible upper fill of cut.	249, 269	222
288	Fill of [289]	Black mottled with green/grey, clay loam. carbon rich.	290	[289]
289	Cut	Enclosure ditch. Equals 301, 261	288	260, 223, 280
290	Fill of [289]	Green/grey mottled with black clay loam?	[286]	288
291	Fill of [240]	Brown /grey /black mottled clay loam.	See matrix	[240]
292	Fill of [293]	5Y 4/2 olive grey clay.	[279]	[293]
293	Cut	Depression or possible pit	292	299
294	Fill of [296]	Same as 204	200	295, 297
295	Fill of [296]	Same as 207	294	[296]
296	Cut	Segment of Enclosure ditch Equals [213]	297, 295	260, 223, 280
297	Fill of [296]	Same as 218, 219, 220.	294	[296]
298	Fill of [301]	same as 207	306	[301]
299	Fill of [300]	2.5Y 5/4 light olive brown sandy clay.	[293]	[300]
300	Cut	Possible cut or depression	299	222
301	Cut	Enclosure Ditch	298	270
302	Cut	Enclosure Ditch?	308	225, 291, 306
303	Fill of [305]	10YR 3/1 very dark grey silty clay.	249, 269	304
304	Fill of [305]	2.5Y 4/2 dark grey brown	303	[305]

305	Cut	Enclosure Ditch	304	225, 291, 306
306	Fill of [301]	Same as 204	See matrix	298
307	Fill of [302]	Same as /similar to 204/303	249, 269	308
308	Fill of [302]	Same as 304	307	[302]
309	Layer	Mid yellow grey silty clay with patches of course yellow sand. Occupation layer.	270	222
310	Fill of [237]	5Y 5/2 olive grey silty clay. lower fill of post hole slot	236	[237]
311	Fill of [312]	5Y 5/2 olive grey silty clay	249, 269	[312]
312	Cut	Posthole	311	222
313	Fill of [314]	Similar to 311	249, 269	[314]
314	Cut	Posthole	313	222
315	Fill of [316]	Same as 236	249/269	[316]
316	Cut	Posthole Group associated with [235, 237, 246]	315	225, 291, 306
317	Layer	Pit lining. Very dark grey-brown burnt flakey clay	260	318
318	Layer	Pit lining. Baked red redeposited natural clay	317	[320]
319	Layer	Baked natural clay pit lining.	321	222
320	Cut	Pit cut with burnt clay linings. Truncated by[296].	318	321
321	Layer	Burnt natural clay at base of cut.	[320]	319
322	Unexcavated feature			
323	Unexcavated feature			
324	Unexcavated feature			
325	Unexcavated feature			
326	Unexcavated feature			
327	Layer	Test pit 2 section. Topsoil		
328	Layer	Test pit 2 section Natural orange gravel		
329	Layer	Test pit 2 section Natural orange sandy clay		
330	Layer	Test pit 2 section Natural pinkish grey gravel		
331	Layer	Test pit 2 section Natural olive grey clay		
332	Layer	Test pit 2 section Natural pinkish grey gravel		
333	Layer	Test pit 2 section Natural olive grey clay		
334	Not used			
335	Unexcavated feature, Trench B			
336	Unexcavated feature, Trench B			
337	Unexcavated feature, Trench B			
338	Unexcavated feature, Trench B			