

**An Archaeological Evaluation at Kings Dyke Pit,
Whittlesey (Area A).**

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Introduction

Site location and geology

The site is located five kilometres to the east of Peterborough, at the north-western tip of the larger of the two former fen islands of Whittlesey (Whittlesey Island with the smaller Coates and Eastrea to the east) (Figure 1). Whittlesey village occupies the centre of the main island which at this point is a little more than one kilometre wide (north-south). The area subject to evaluation, a field of approximately 11.25 hectares, is adjacent to the King's Dyke brick pit on the west side of the island. The site is centred on TL240 980. The field is the first of three areas designated for clay extraction as extensions to the quarry and is hereinafter referred to as Area A. The field lies on the north side of the kiln yard and will form a north-westward extension to the current quarry. The area is subject to an Interim Development Order for the extraction of clay for brick manufacture. Fieldwork was carried out between 13th - 28th of October 1995 and was funded throughout by Hanson Brick.

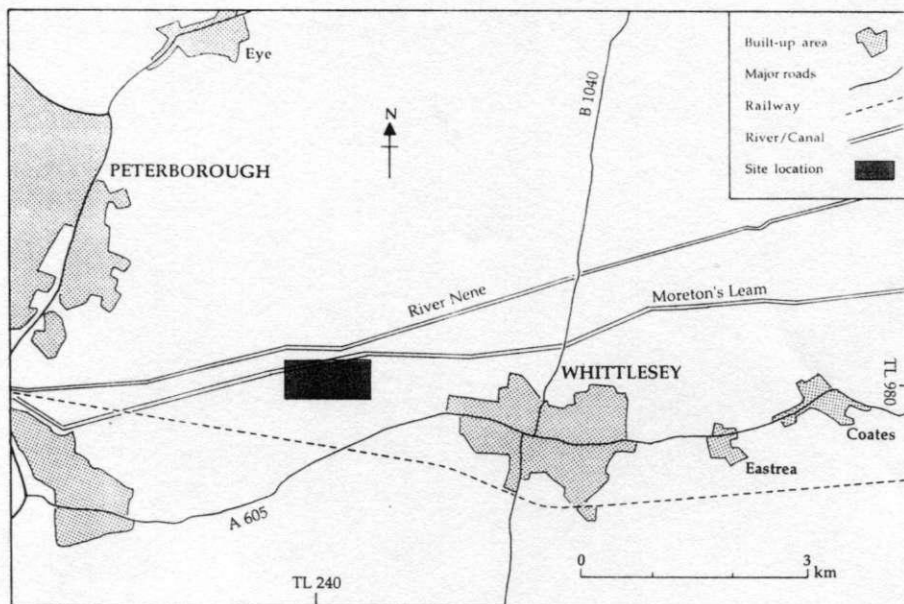


Figure 1: Site Location

Area A is a slightly undulating arable field, lying between 4 and 7m AOD, sloping north and slightly west down to the Fen edge and the Nene Floodplain (at c. 3m AOD). The maximum height attained on the Island, in Whittlesey village, is 8m AOD. At the southern limit of Area A, bordering the quarry edge, is the trackway known as the 'Fen Causeway.' The trackway follows a west-northwest/east-southeast alignment and is truncated by the existing quarry to the east. At the north of the field is a modern banked road, the Low Road, and beyond that lies Moreton's Leam

(a Medieval canalisation of the River Nene which bounds the island to the north). The Leam marks the southern edge of the wetland area of Flag Fen, with the Island of Northey at its east and the high ground of Fengate and Peterborough at the west.

The underlying geology consists of March Gravels (with variable amounts of clay admixed) lying above blue Oxford Clay (the mineral resource).

Archaeological background

Mesolithic and Neolithic settlement patterns on the Whittlesey Islands are little understood, evidence is scant and mostly in the form of a few accidental finds made during quarrying. This is perhaps more an indication of the lack of obvious sites and features (or the lack of recognition of those that exist) rather than the actual absence of settlement. Three Palaeolithic hand axes were found east of the town *somewhere* in TL 28 98 (Baden-Powell 1950) and a few polished stone axes have been found around Eldernell (Hall 1987).

Later Prehistory is similarly under-represented with (again) evidence deriving from poorly recorded, or unrecorded, isolated finds, (e.g. a metal axe from Chapell Farm [Hall 1987]). However, four kilometres to the south lies the barrow group of the Suet Hills (sites 19 and 20 [*ibid.*]), with another smaller group at Eldernell on the north-east tip of the island of Coates and Eastrea (site 11). Two Bronze Age artefacts, an MBA rapier and an LBA sword, were found close to the area during quarrying in 1969 (Pryor 1978), and Iron Age finds have come from brick pits at TL 239 975 (Phillips 1970). More recently, a Bronze Age axe head was found in a garden along King's Dyke (Robinson *pers. comm.*).

In contrast, Roman activity is well documented and extensive. Much of the settlement could be related to the presence of the Fen Causeway Roman road which traverses the island from west to east. The Fen Causeway has been well documented elsewhere (Margary 1935), its alignment is roughly west-east, from the Roman settlement at Durobrivae (south-west of Peterborough) across north Cambridgeshire to Denver in Norfolk. However, only certain sections of its exact route have been conclusively identified. The road is seen as a cropmark, crossing from Flag Fen, Peterborough, to the north-west, on a gravel bank or agger, and reaches the island somewhere to (or at) the west of Area A. From the east of the smaller island of Eastrea, it heads across the fen to March. The position of the road on the western tip of Whittlesey Island (and where the road would have crossed the river to the north) is not as yet known and it is possible that it lay just to the south of the site in what is now the King's Dyke Pit. Recent (but unpublished) work has defined a (or the) road's edge in the region of TL 241 978 to the south of Area A (Whittlesey Society Newsletter No.1, 1984). The precise location of this road is not known but it may have lain slightly to the south of the trackway in an area which has

now been quarried. Previous excavation by the CAU in Stonald Field to the east of Area A (Mortimer 1995) has shown that the trackway at the south of the site, the 'Fen Causeway' (or at least that part of it excavated) dates to no earlier than the period of the Enclosures in the middle of the 19th century.

The Roman settlement site at the centre of Area A is well documented both from cropmark evidence (Figure 2) and from the recovery of large quantities of pottery during fieldwalking (Whittlesey 14 in Hall 1987). Probably an agricultural settlement of some kind, it lies just off the road on the higher ground above the fen edge. A similar cropmark site is recorded just to the north-west and settlement is also known to the east, at Eldernell. A small late Roman inhumation cemetery was excavated by Peterborough Museum Society's Archaeological Field Section in 1961 (Challands 1977) to the south at Funtham's Lane, and a 1st or 2nd century AD cremation just off the 'Fen Causeway' at TL 244 979 in 1958 (Phillips 1970). A 1st century AD Roman sword was found during quarrying at Funtham's Lane (TL 238 968) in 1965 (Howe 1978; VCH 1978).

Little is known of the Saxon settlement of the island, no sites or chance finds having been recorded. The Medieval Stonald Field (or Stoney Hale, first recorded in 1246) covered the whole area to the north-west of Whittlesey village, as one of four fields in the Medieval open field system. Some Medieval field boundaries may survive and there is aerial photographic evidence for ridge and furrow ploughing to the west and south of Area A. The Medieval period saw the canalisation of the River Nene in Moreton's Leam to the north of Whittlesey island, with a further, larger, cut to the north of the leam in the 19th century (Darby 1940).

The Enclosure of Stonald Field, in 1844, is well documented and cartographic evidence shows the layout of the new boundary/drainage ditches, much of which survives to the present day. The trackway to the north of the field, the Low Road, was constructed in the 1960's to replace the 'Fen Causeway' route when it was taken into the quarry land to the east of the site. The name, being the original local name for the Causeway route was simply switched to the modern (northern one).

Whittlesey Island, with its northern promontory of Northey, forms the eastern and southern boundaries of the former wetland embayment now known as Flag Fen. On the north-western side of this embayment lies Fengate, at the eastern edge of modern-day Peterborough. Excavations at Fengate and Flag Fen have revealed an extensive prehistoric landscape incorporating both settlement and ritual (or possibly defensive) features. The archaeological remains display two main elements: to the west, on the higher, dry ground of Fengate, lies an extensive 2nd Millennium BC landscape. This is based upon ditched rectilinear fields and droveways laid out along, and at right-angles to, the contemporary fen-edge (Pryor 1980). The landscape was first laid out in the later Neolithic period and remained in use for some 1500 years until the early 1st Millennium BC. A double

alignment, or avenue, of piled wooden posts has been traced extending at least 1km into the embayment from Fengate in the west towards the steeper dry land of Northey to the east. Towards the eastern end of the alignment, and as an integral part of it, lies a wooden platform covering approximately 1.4 ha. Dendrochronology and other evidence indicates that the platform and post alignment were in use for some 400 years (between about 1350 and 950 BC), with significant and highly complex activity associated with it (Pryor 1992a).

Little excavation has so far taken place at the eastern end of the alignment but the available evidence would suggest that the Northey landscape is probably as early and as long-lived as that at Fengate (Pryor 1992b). Given the scale and intensity of settlement and ritual activity around the western side of the embayment, it is probable that the eastern shores and the lower slopes of Whittlesey Island, may also have supported similar activity.

Aerial Photographic reconnaissance

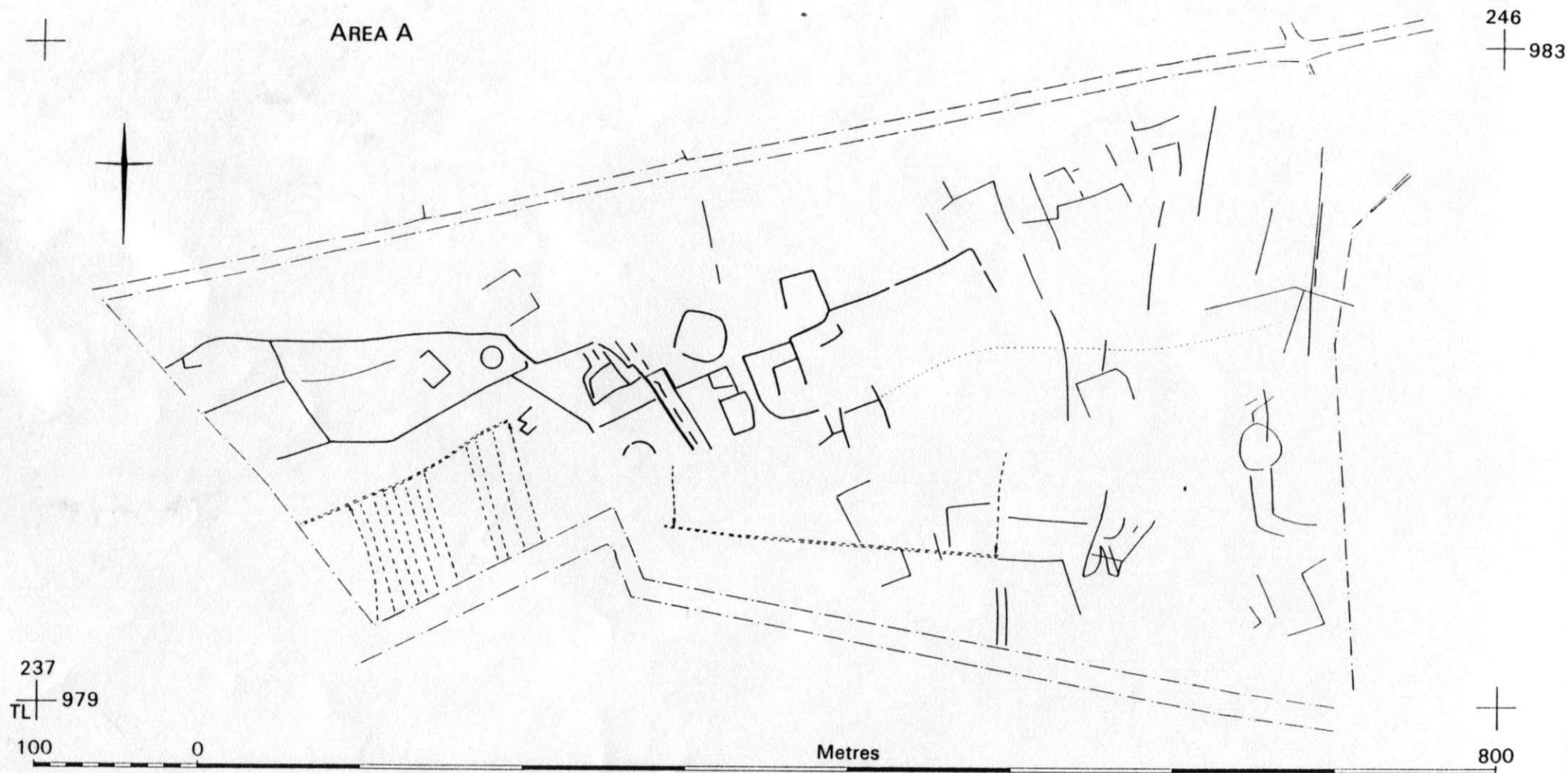
A study was undertaken by Air Photo Services of cropmarks from aerial photography on the three areas of assessment (Appendix 1), and rectified plans at a scale of 1:2500 were produced (Figure 2). In Area A it revealed an extensive and regular settlement area of ditches and enclosures at the west and centre of the field, with the features becoming more indistinct further east (perhaps masked by deeper alluvial soils or, conversely, truncated by ploughing). The existence of the settlement was known (see above) but not its full extent, nor the density of the features eastwards towards the previous excavations (in Stonald Field). Immediately to the west of the eastern boundary with Stonald Field was what appeared to be one side of a large ditched enclosure - it had not, however, been seen to extend into the previous excavations. The presence and orientation of remnant ridge and furrow agriculture of the Medieval open fields was also recorded.

Previous Work

The areas surrounding the Hanson Brick quarries were the subject of investigation by fieldwalking in the early 1980's, during the course of a fen-wide prospection survey (The Fenland Survey Project, commissioned by English Heritage), Area A having been part of the fieldwalking programme at that time. The Survey's results indicated the presence of the settlement site in Area A with a dense associated finds scatter of Romano-British date.

An evaluation and excavation to the east of Area A (in Stonald Field) undertaken by the CAU at the end of 1994, revealed evidence of extensive Romano-British gravel extraction, possibly linked to the construction or repair of the Fen Causeway Roman Road (Mortimer 1995). At the west of Stonald Field, and extending into Area A, were a number of ditches (also

Romano-British in date) forming a rectilinear system of paddocks or water meadows on east-west and north-south alignments (Figure 8). Evidence of pre-Roman activity was scant (a well, possibly dating to the later Bronze Age, and one pre- or early-Roman ditch); finds densities, of any period, were remarkably low.



— Archaeological ditch and pits

----- Headland

//// Ridge and furrow

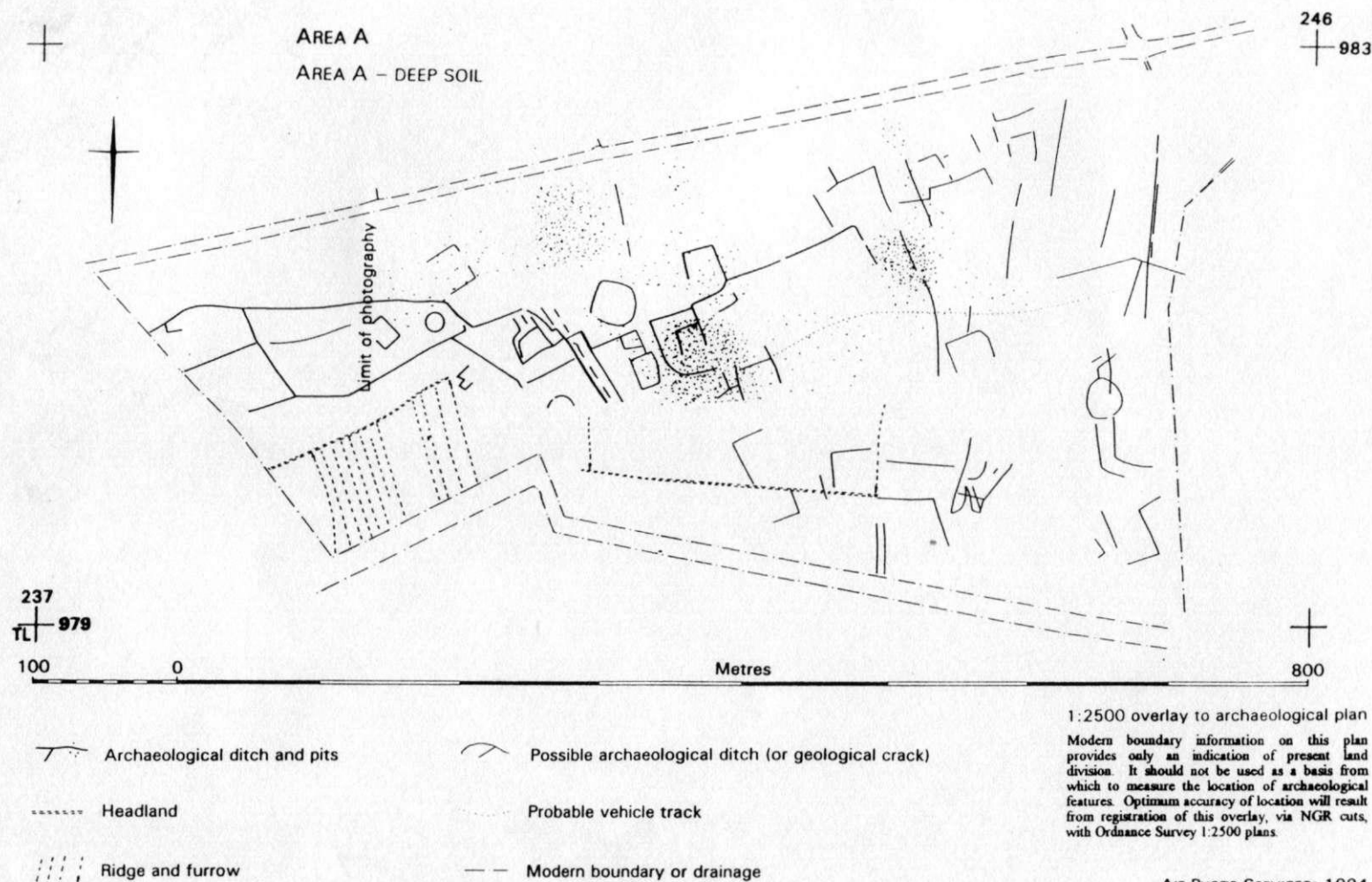
— Possible archaeological ditch (or geological crack)

----- Probable vehicle track

— Modern boundary or drainage

Modern boundary information on this plan provides only an indication of present land division. It should not be used as a basis from which to measure the location of archaeological features. Optimum accuracy of location will result from registration of this overlay, via NGR cuts, with Ordnance Survey 1:2500 plans.

Figure 2: Archaeological features plotted by aerial photography



Methods of investigation

Fieldwalking

As part of the 1994 evaluation a programme of fieldwalking was undertaken over and beyond the limits of the known Romano-British site in Area A. All ceramics and other cultural material were collected from some 32,000 square metres of the field surface. While Post-Medieval finds were few and evenly distributed over the southern half of the field (the result of field manuring), to the north the bulk of the pottery was almost exclusively Roman in date and notably concentrated in a relatively small area (approximately 60 square metres). The pottery assemblage consisted of 1210 sherds of which 732 were Roman in date (60%), 500 Post-Medieval and 5 Medieval - there were no prehistoric sherds.

As an adjunct to the previous fieldwalking survey further collections were taken from the ploughsoil and subsoils at each of the 20 'test stations' (5m x 5m excavated areas). At the south-west corners of the test stations, a two-bucket sample (equalling 30 litres of soil) was taken from the spoil heaps and hand sorted for artefact recovery. Very few finds were recovered by this method and the majority of these were post-Medieval pottery, along with brick, tile and iron nails.

A 100% collection was made of finds visible on the spoil heap surface along the trenches which traversed the Romano-British settlement area (Trenches II, IV and XIV; see below) - no attempt was made to sieve or sort through the spoil to increase the collection. Just over a third of the pottery assemblage (557 sherds) was recovered by this method.

Trench excavation and Test Stations

A grid of trenches and test stations (5m x 5m excavated areas) was set out across the field and excavated by machine, removing the ploughsoil and any remaining subsoils to reveal the underlying natural sub-stratum in which any archaeological features would be visible. All the Trenches were approximately two metres in width and placed primarily to investigate the cropmark archaeological features. The test stations were arranged on a regular grid 100m apart as a general landscape evaluation technique. Fourteen trenches totalling 920m in length (1840sq m) and twenty 5 x 5m test stations (500sq m) were excavated. The area opened totalled 2340sq m, approximately a 2.1% sample of the field surface (Figure 3).

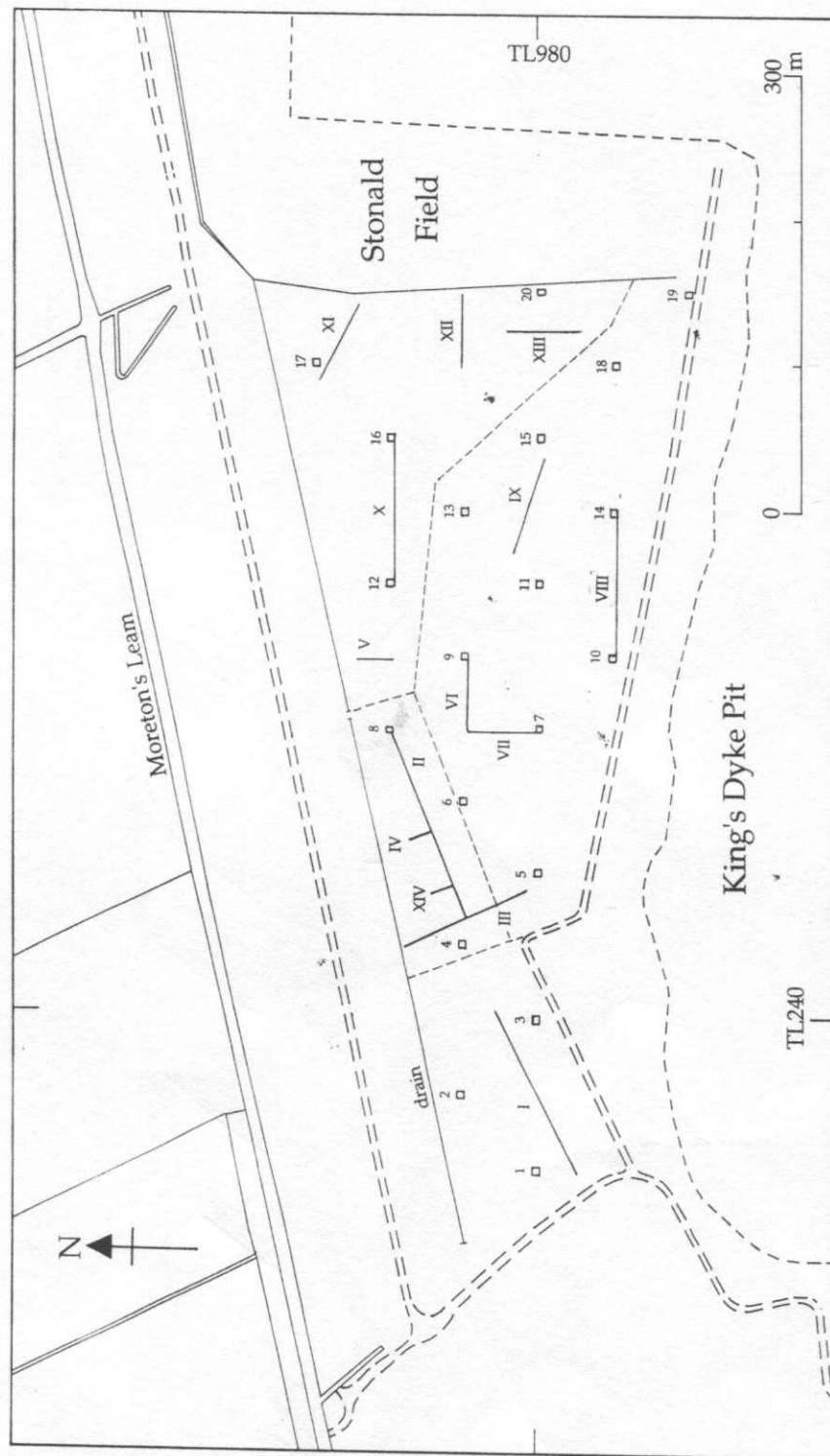


Figure 3: Location of Trenches and Test Stations

The trench alignments and lengths were as follows:

- Trench I: North-east/south-west, 120m.
- Trench II: East-northeast/west-southwest, 140m.
- Trench III: North-northwest/south-southeast, 90m.
- Trench IV: North-northwest/south-southeast, 18.50m.
- Trench V: North-south, 25m.
- Trench VI: East-west, 50m.
- Trench VII: North-south, 50m.
- Trench VIII: East-west, 100m.
- Trench IX: West-northwest/east-southeast, 68m.
- Trench X: East-west, 100m.
- Trench XI: West-northwest/east-southeast, 60m.
- Trench XII: East-west, 50m.
- Trench XIII: North-south, 50m.
- Trench XIV: North-northwest/south-southeast, 14.50m.

Excavation and recording

The trenches were base-planned at a scale of 1:50, individual excavated features at 1:20 or 1:10 and all sections drawn at 1:10. Where possible discrete features were half-sectioned and linear features sample excavated in one metre sections.

The Unit-modified version of the Museum of London recording system was used to describe the excavated features (Spence 1990). Discrete layers, fills and cuts were assigned individual context numbers, indicated in the text in square brackets (e.g. [001]). Feature numbers were also assigned (e.g. F.1) as a descriptive aid defining a pit, a ditch etc., and its component contexts.

Environmental Sampling

Soil samples were taken from appropriate contexts (e.g. waterlogged or charcoal-rich fills) across the site and subsequently analysed to determine the potential for providing environmental evidence (macro-botanical and fossil indicators) (Appendix 3). Soil profiles were examined to ascertain suitability for soil micromorphological analysis and pollen sub-samples taken to aid in the reconstruction of the local palaeoenvironment, vegetation and aspects of cultivation (Appendix 4). It is anticipated that *detailed* environmental and micromorphological sampling and analyses (plus other specialisms) will take place during further phases of investigation (if such are to occur) when a better grasp of the archaeological contexts will be available and a suitable sampling strategy can be developed in consultation with the various specialists.

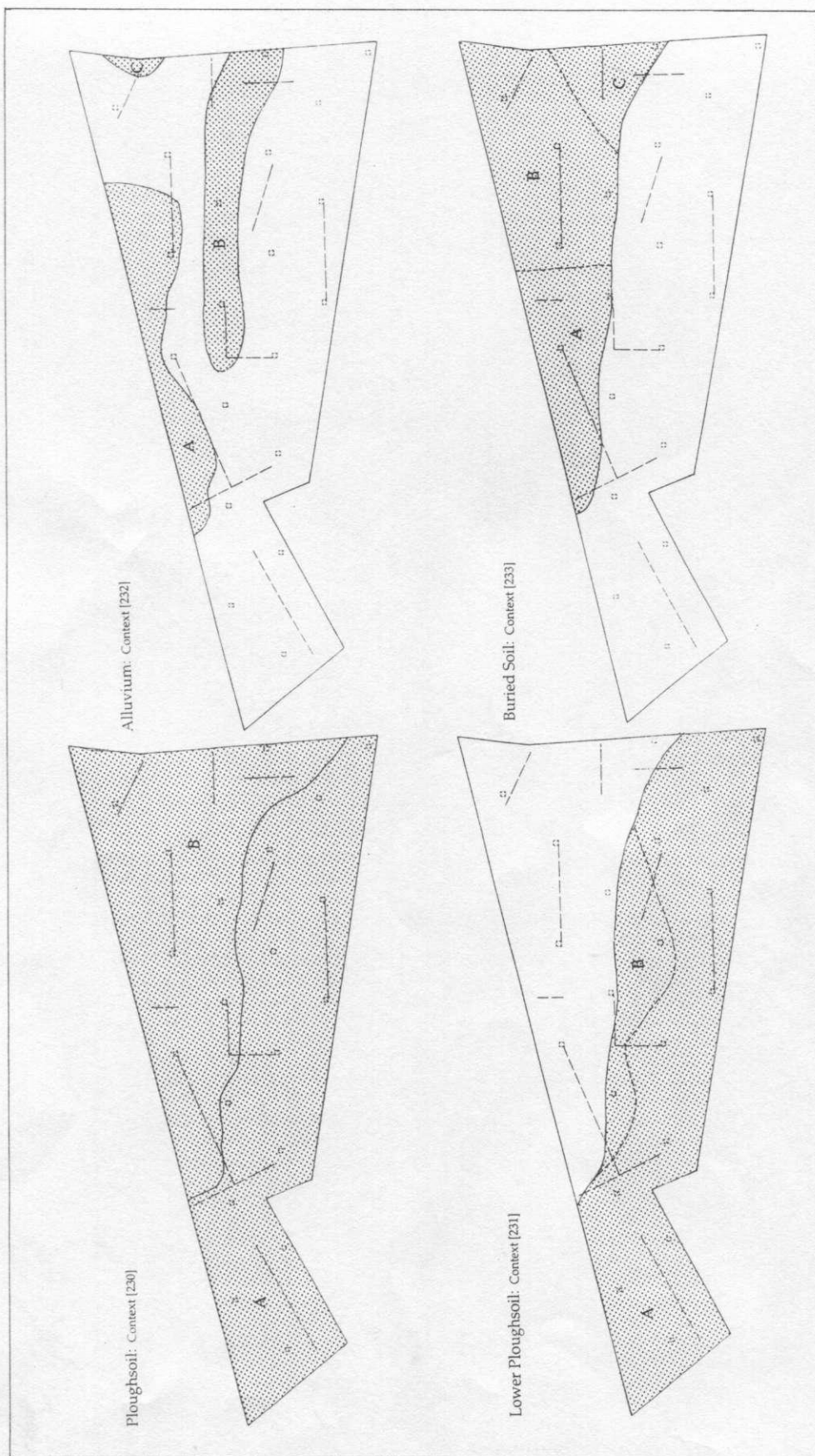


Figure 4: Soil Horizons

Excavation results

Soil Horizons

The soil horizons overlying the natural clay/gravel substratum reflect the distribution of surviving archaeological features beneath. The ploughsoil has a fairly even depth of 30 - 50cm, deeper along the northern and western edges of the site, shallower on the higher gravel at the south. In the central and north-eastern areas it contains a higher proportion of clay, ploughed in from the alluvial layers beneath (an alluviated ploughsoil), and at the south and west a higher proportion of similarly ploughed-in gravel. The alluvium, although partially incorporated into the ploughsoil, remains as distinct layers in two swathes across the north and east of the site to either side of a ridge of higher ground utilised in the Medieval period as a headland road. Its depth varies dependant upon the level/depth of the buried soil and natural subsoil beneath but in the upper levels of later Roman features it survives to depths of up to 40cm. Surprisingly absent from much of the north-eastern area it deepens at the eastern limit of the site, towards the area excavated in the 1994 trenches where again it infilled the tops of the Roman features.

Beneath the ploughsoil, and the alluvium where extant, a variety of relict soils remain. They are preserved in the lower central and north-eastern areas by the covering of heavy alluvial clay and in the higher areas to the west and south have been disturbed and to some extent incorporated into the modern ploughsoil. The buried soils to the north and east are 5 - 15cm in depth, those to the west and south (appearing more as a lower ploughsoil) are 5 - 30cm, with a greater depth, to 50cm, at the far western limit of the site above the fills of a broad palaeochannel. The overall depth of soils above the natural subsoil varies from 35cm at the south of the site to 1.00m at the west, with levels over the central area c. 50cm deep (Appendix 2).

See Figure 4.

Ploughsoil [230]

A A mid-dark brown friable silty clay loam with common to locally abundant small to medium gravel inclusions.

B A mid-dark brown silty clay, slightly plastic, with occasional to common gravel inclusions. Generally far more clay than [230A] particularly towards the base of the context where it forms a distinct band.

Lower Ploughsoil [231]

A A mid-dark yellow/grey-brown friable silty clay loam with occasional to locally abundant sand and gravel inclusions.

B As [231A] but browner with a higher clay content and fewer gravel inclusions.

Alluvium [232]

A A dense orange-grey alluvial silty clay, plastic, no inclusions.

B As [232A] but brown to grey-brown.

C As [232A] but orange-brown.

Buried Soil [233]

A A fine dirty pale grey sandy silt clay, plastic, gritty with occasional small gravel inclusions and occasional charcoal fragments.

B As [233A] but browner, more sand/silt and cleaner.

C As [233B] but orange-brown, mixed with more clay and similar to [231].

For the purposes of the discussion of the excavation results and to define areas in which further excavation may be necessary, the field has been divided into four areas as follows (Figure 3);

Western Area: Trench I; Test Stations 1, 2 and 3.

Central Area: Trenches II, III, IV and XIV; Test Stations 4 and 8.

North-eastern Area: Trenches V, X, XI, XII and XIII; Test Stations 12, 16, 17 and 20.

Southern Area: Trenches VI, VII, VIII and IX; Test Stations 5-7, 9-11, 13-15, 18 and 19.

When all the trenches had been cut the decision was taken on site to concentrate resources on the features revealed beyond the main Romano-British settlement area. The settlement-related features were dense and of obvious 'quality', with a high finds yield (and therefore relatively simple to date) and excellent preservation of feature-definition, soils and artefacts/ecofacts. Precise interpretation of the nature and function of each feature was not deemed necessary, it being by far preferable to excavate the area as a 'whole' at a later date. The narrow trench-based excavation of sometimes complex settlement features can lead to confusion and the loss of critical information. In contrast, the features recorded outside the settlement area, though of far less *obvious* worth, were more difficult to put into context (in many cases no definite date-span could be attributed to them without excavation and the possibility of recovering datable finds). Even after excavation the density of finds material beyond the settlement area was so low that a definitive dating of all the features cannot always be offered.

In total, 75 archaeological features were recorded, of which 45 (60%) were sample excavated. The pottery dates, given at the end of the feature descriptions, refer to the date-span of the sherd types recovered and do not necessarily denote a *terminus post quem* or a definitive deposition date. In total, 1653 sherds were recovered by excavation, surface cleaning and spoil-heap collection. The assemblage was almost exclusively dateable to the Romano-British period (1634 sherds). In addition, 11 sherds of prehistoric and 8 sherds of post-Roman pottery were recovered (the later pottery is predominantly post-Medieval though one sherd may date to the Saxon period). The bulk of the Roman material (96%) was identifiable as being manufactured in the Lower Nene Valley itself (Appendix 7).

The bone assemblage, despite good preservation, was relatively small, totalling 367 pieces of which 88 were identifiable to species. However, the large part of those recovered were from the sealed fills of features within the settlement area and only a small proportion of these were excavated. Of these, the majority were from cattle (53 pieces) with sheep, goat, pig, deer, bird, horse and a dog (or wolf) also represented (Appendix 5).

Western Area

A large channel-like feature of probable glacial origin at the western end of Trench I extended beyond the trench and may possibly continue to the western edge of the island itself, its orientation was approximately north-south. Worked flint and fragments of Romano-British and Iron Age pottery and fired clay were recovered from silt-filled depressions within the uppermost levels of the channel's fill, with occasional intrusive sherds deeper within it. No trace of the cropmark-plotted ridge and furrow could be discerned.

Trench I

F.58 Cut [240] Fills [241-6]

Large 'natural' cut, aligned approximately north/south, width 12m and extending beyond western limit of excavation, depth 0.60-0.90m (from base of buried soil or lower ploughsoil). The eastern limit was unclear due to natural wear and collapse of clay/gravel subsoil, at the base the natural clay shows sinuous and undercut wear patterns. The fills were mixed and variable, dirty grey-beige silts/orange gravels/fine sands/orange gravel + silt mix/compact Fe stained sandy gravel (at base above the natural clay). All the fills appeared water-washed/affected/lain. At the surface, below the subsoil, were amorphous circular and sub-circular pits or depressions, often with a clear edge to one side but merging with natural subsoil at the other. Their fills were pale- mid grey silty sand with very occasional charcoal flecks and frequent small - medium water-worn flints. These depressions produced the majority of the pottery sherds and worked flints though a few were recovered from within the main fill. Surface finds: Iron Age and mid 1st century AD; Excavated finds: [241], early 2nd-late 3rd century; [246], late 2nd century. Phasing: Glacial.

No archaeological features were recorded in Test Stations 1, 2 or 3.

Discussion

The palaeochannel at the west of the area, which cuts deep enough to affect the underlying Oxford clay, has to be seen as being of glacial or periglacial origin - its fills primarily the churned, sorted and re-deposited natural clays and gravels rather than the silts of a historic/prehistoric river channel. The artefacts within it, (from possibly neolithic worked flint to 2nd century Roman pottery) can only be explained as deriving from the

intrusive action of tree roots and possibly animal burrows reaching deep into its 'softer' fills.

The cropmarked ridge and furrow had been plotted from photographs taken in the 1940's and 50's when the field was still predominantly rough pasture land (Figure 2). Subsequent deep ploughing over the last 40 years has removed all trace of the Medieval system on what is one of the 'higher' areas of the site. The demarcation line between the heavily plough-affected land to the west and south and the lower-lying and still partly alluvium-sealed land surface to the north runs approximately east/west through the middle of the site at about 5.00 - 5.50m AOD (at the field surface). All features south of this line are liable to have been severely truncated.

Central Area

As indicated by the cropmark and fieldwalking evidence the central area, corresponding to the western part of the Romano-British crop-marked settlement, produced by far the highest density of both features and artefactual evidence. Four trenches were excavated to the level of the archaeological deposits, removing the ploughsoil along with areas of a buried soil and/or a dense alluvial clay. The settlement lies on a roughly south-west/north-east axis, comprising primarily field/enclosure ditches which in parts occur with such frequency as to indicate three or four distinct phases of activity. Pits, postholes and beam slots were recorded but, in the area of the densest archaeology, remained unexcavated. One excavated ditch had, above its eastern edge, a squared-off ridge with a flattened terrace cut beyond forming, perhaps, the foundation of a wall platform. The quantity of limestone fragments, brick, roof and floor tiles in the surrounding area may indicate the presence of buildings in the immediate vicinity.

Much of the area is overlain by a thick layer of rich black soil, F.179, high in organic content and with large quantities of building material and pottery, largely of 2nd-3rd century AD date. The layer would appear to be a deliberately dumped deposit, possibly of midden material, over an area of dense settlement-related features (ditches, pits and possibly structures) and may be related to a period of contraction or abandonment of the occupied area. The discovery of this deposit is significant in terms of the surface artefact distributions, already known to be concentrated over this central area of the cropmarks. This suggests that the artefact-rich deposit may be contained in some way; perhaps bounded by a perimeter fence or ditch. That the typical pattern of diffuse artefact spread was not evident in the surface distributions may indicate that usual manuring practices were not used in the fields surrounding the farmstead.

At the centre of the 'black earth' area, aligned north-west/south-east, was a metalled roadway (gravel compacted directly onto the natural subsoil). The road, approximately 4m wide, had ditches on both sides, with re-cuts on their inner edges thus possibly reducing its width from an original 5 - 6m (Figure 6).

A very loose phasing has been attempted for the features recorded in the trenches within the central area - it should be stressed, however, that precise dating and phasing cannot be known until further open-area excavation has taken place. All the features, with the exception of one post-Medieval ditch, would appear to be of Roman origin and are divided into broad date ranges as follows:

Early - *c.* AD 50 - 150.

Middle - *c.* AD 150 - 300.

Late - *c.* AD 300 - 400.

Unknown - AD 50 - 400.

The phasing is designated by excavated finds, surface finds and/or direct relationships with other features or the overlying stratigraphy and relates only to the infilling/abandonment of the feature. It appears at the end of the context descriptions.

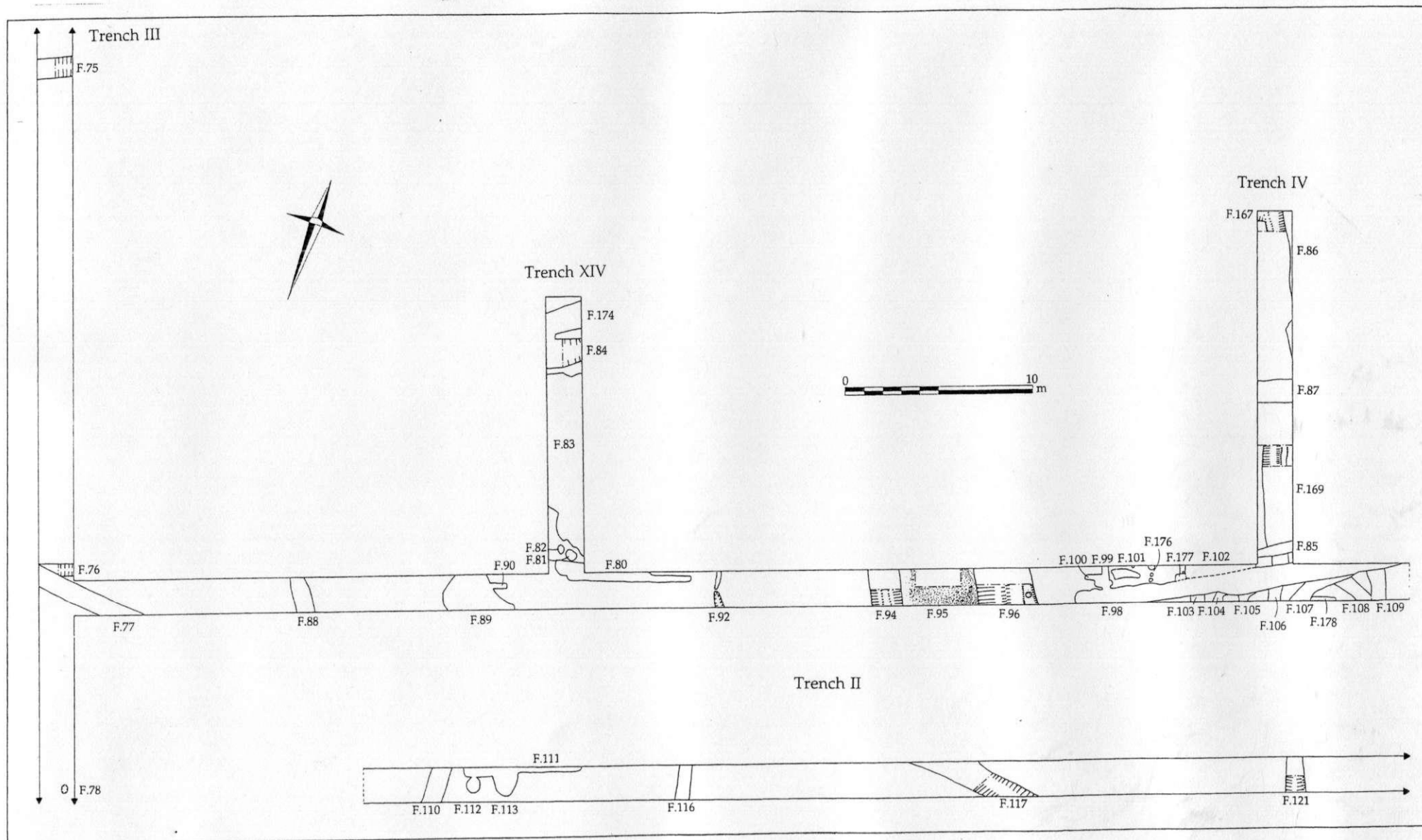


Figure 5: Central Area

Trench II

For ease of discussion, and as no clear indication of their phasing and relationships can as yet be ascertained, the features recorded in Trenches II, IV and XIV are (with occasional exceptions) described in numerical order; in Trench II corresponding approximately to their location from west to east. To attempt to discuss the features in even loosely defined phased groups is deemed inappropriate, if not impossible, at this stage.

In the collection from the surface of the machine spoil heaps 362 sherds of Romano-British pottery were recovered (along with one post-Medieval sherd), the majority being from the 'black earth' layer F.179. The date range of the material spanned the entire period from the late 1st to the 4th centuries AD.

Archaeological features:

The 'black soil' layer present in all three trenches within the settlement area has been assigned Feature No. **F.179**. It extended approximately 40m along the length of Trench II, from Trench XIV to beyond Trench IV, and for the entire lengths of the latter trenches. As a spread, within the ploughsoil beyond the trenches it could be seen to extend southwards for c. 15 - 20m. Much of the layer has long been incorporated into the ploughsoil but it remains *in situ* wherever the underling features form a slight hollow or the buried soil/natural subsoil is lying below plough-depth. Both pollen monolith and bulk samples for flotation were taken from within the layer (see Discussion).

F.179 = contexts [302] [326] [342] [348] and [372] (possibly [288] [294] and [329])

An extensive layer of rich black loam, well defined over a c. 25m² area, present both as fills in cut features as well as above and incorporated within the buried soils. Very high organic and artefactual content (pottery sherds - many large and unabraded, bone, brick/tile fragments, limestone building stone). Phasing: Late.

At the junction with Trench XIV, parallel to the trench, were two possibly intercutting trenches, **F.80**. Though unexcavated, the features had the appearance of foundation trenches or beam slots: straight edged and flat-ended they were approximately 5 and 6 metres in length and 0.40 - 0.80m wide. Any corresponding parallel trenches would either lie to the south, beyond the limit of excavation, or to the north beneath the spread of dark earth over or forming **F.83** (see below).

F.80

Linear feature or features aligned north-east/south-west, length 6.55m, width 0.30-1.00m. The surface fill was a dark grey-black clay silt with some charcoal and gravel inclusions. Surface finds: 2nd-4th century AD. Phasing: Late.

An unexcavated ditch length, **F.88**, ran approximately square to the principal west-southwest/east-northeast alignment of the cropmarked Roman settlement.

F.88

Ditch cut aligned north-northwest/south-southeast, width 0.90m. Surface finds: one sherd (undateable). Phasing: Unknown.

A large irregular feature, possibly a pit, **F.89**, extended beyond both limits of excavation; its size and form were unseen. Exiting at its eastern side was a short length of a straight-edged flat-ended feature, **F.89**, parallel to and near-identical to those in **F.80**. Though unexcavated, it again bore a resemblance to a short beam slot.

F.89

Large irregular feature, width 1.50m-2.50m, spanning the width of the trench. Upper fill a dark silty loam. Phasing: Unknown.

F.90

Narrow squared linear feature extending 0.75m north-east from **F.89**, width 0.30m. The fill was as for **F.89**. Phasing: Unknown.

On the same alignment as **F.88** to its west was a shallow and seemingly heavily truncated gully, **F.92**. Its fill, a part of the black earth layer **F.179**, while apparently contained within the gully's western edge was seen to spread out beyond the feature to the east. The possibility remains that the gully may have served, intentionally or otherwise, as some form of boundary to this layer, perhaps with a low bank at its western side or as a fence-line.

F.92 Cut [334] Fill [329]

Shallow gully, aligned north-west/south-east, width c. 0.65m at maximum, depth c. 0.10m. The fill was a dark black-brown silty loam with occasional gravel inclusions. The fill was contained within the cut at the west but appeared to spread out to the east and was similar to the black soil **F.179**. Excavated finds: [329], late 3rd-4th century AD. Phasing: Late.

The principal feature within the trench, and the most clearly defined, was the metalled roadway **F.95** with its flanking ditches **F.94/168** (at the west) and **F.96** (at the east) (Figure 6). All three features lay approximately square to the principal west-southwest/east-northeast alignment of the cropmarked Roman settlement. The metalling of the roadway was patchy, particularly at the west, and consisted of a single layer of gravel embedded in the natural subsoil. The road survived to a width of 4.10m and there was no visible camber; the surface being flat with a very gradual downward slope to the north.

The original western roadside ditch, **F.168**, had been re-cut with its base some 0.70m further to the east (**F.94**), both were a steep-sided U-shape. The first cut, perhaps open for longer and re-cut/cleaned out more often, was somewhat the broader of the two. Between the bases of the two ditches, and at a slightly higher level, was a weathering cone/earlier ditch cut. If a ditch cut the feature was flat-based (cut [309]) and filled with an ashy-looking grey-brown clay silt, [310]. The eastern ditch, **F.96**, had been re-cut

at least once, very wide, up to 3.40m, and (relatively) shallow. Little remained of the primary cut. The re-cut was stepped on its eastern edge with, on the almost level platform, an apparently contemporary vertical-sided circular posthole cut, F.173; its fill the same as that of the ditch above it. At the west the ditch edge was a gentle slope up to the road surface.

Both ditches had been re-cut on their inner (roadside) edges possibly reducing the road's width from an original 5.50 - 6.00m.

A bulk sample for flotation was taken from the primary fill of F.168 for subsequent environmental analysis (see Discussion).

F.168 Cut [298] Fills [300]

Ditch cut aligned north-west/south-east, width 0.85m (truncated at east), depth 0.60m, a steep sided and U-shaped. Earlier roadside ditch cut out by ditch re-cut F.96. The primary fill was a dark grey mottled orange compact sandy silt with common small pebbles and charcoal flecks, upper fill a fine friable grey-brown gritty clay silt with orange/green mottled staining towards top of context, inclusions as lower fill. Excavated finds: [300] late 1st-3rd century AD. Phasing: Middle.

F.94 Cut [297] Fills [299, 301-2]

Ditch cut aligned north-west/south-east, width 0.80-1.00m, depth 0.50m, a steep sided V-shape with a narrow flat base. The primary fill was a dark grey-brown silty clay loam with common small pebbles, occasional charcoal fragments, pottery and bone fragments, central fill a fine friable grey-brown gritty clay silt with orange/green mottled staining towards top of context, inclusions as lower fill. The upper fill [302], filling the ditch depression to a flat interface with the ploughsoil, was a black-brown friable silty clay loam with occasional small-large pebbles, limestone, pottery, bone and charcoal fragments and very occasional orange staining, part of the black soil layer F.179. The ditch cut truncated an earlier ditch, F.168, at its west, cutting into the roadway at the east. Surface finds: 2nd-4th century AD; Excavated finds: [299] [301] late 1st-3rd century AD; [302] late 2nd-late 4th century AD. Phasing: Late.

F.95 Surface [353] Layer [352]

A compact, if in parts patchy, metalled surface, rounded flint pebbles from 10 - 80mm in size. Aligned approximately north-west/south-east the surface was flat, with no visible camber, but sloped slightly down to the north. Its width as recorded was 4.10m with the surface truncated to the east and petering out to the west, however, both roadside ditches were re-cut on their inner edges, into the road surface, and the possible initial width could have been up to 5.70m. Layer [352] sealed the road, its depth from 0.05-0.10m, a dark grey-brown gritty silt with frequent gravel inclusions, occasional charcoal flecks and frequent pottery sherds lying flat within it and on the surface below. The layer merged with the upper fills of the ditches at either side. Surface finds: 2nd-4th century AD; Excavated finds: [352] late 2nd-4th century AD. Phasing: Late.

F.96 Cuts [344, 373] Fills [342-3, 351, 360]

Ditch cut aligned north-west/south-east, the primary cut [344] was c. 0.75m deep and of unknown width, the re-cut ditch [373] 0.80m deep and 3.40m wide, broad and relatively shallow with a stepped eastern edge and gentle slope at the east. The re-cut truncated the primary ditch on its inner, western side and cut through the road surface. The primary (truncated) fill of cut [344], [343], was a mid-dark grey-brown gravelly silt mottled with orange sandy clay natural (weathering), that of the re-cut, [360], a compact mid-dark brown/black silty loam with, predominantly at its western (roadside) edge, common gravel inclusions and patches of weathered natural clay. The

main fill [342], a dark brown/black organic silty loam with frequent pottery and bone fragments, was part of the black soil layer F.179. The upper fill [351], infilling the ditch depression and up to 0.40m deep, was part of the alluvial clay layer [232]. Surface finds: 3rd-4th century AD; Excavated finds: [342] early 3rd-4th century AD; [343] mid 1st-mid 3rd century AD; [360] 2nd-late 3rd century AD. Phasing: Late.

F.173 Cut [347] Fill [348]

A circular vertical-sided posthole cut, diameter 0.35m, depth 0.20m, cut into flat ledge at eastern side of ditch F.96. The fill was a dark brown/black organic silty loam, the same as [342] within the ditch and a part of the black soil layer F.179. Phasing: Late.

To the east of the roadway lay the 'busiest' area of archaeological activity. The latest feature, ditch **F.98**, cut north-east/south-west, on the main alignment of the Roman settlement, across a concentration of intercutting pits, postholes, slots and ditches. The ditch, which remained unexcavated, was c. 1.00m wide and either butt-ended or tuned south at the west. Certainly the latest feature in the area it was perhaps one of the latest in the settlement period - the surface collection of finds produced 1st - 4th century AD Roman pottery and one small sherd which may be of Saxon date.

F.98

Ditch aligned north-east/south-west, c. 16m in length, possibly butt-ending or turning south-east at the west, width 0.75-1.35m. The surface fill was a very black-brown clay silt, pottery-rich, the same as the black soil layer F.179. The ditch cut across the line of all earlier features. Surface finds: late 1st-4th century AD plus one possible ?Saxon sherd. Phasing: Late.

Two groups of features were visible beneath ditch F.98, all remained unexcavated:

To the north of the ditch (running from west to east); **F.99**, a narrow trench or slot, ran between the ditch and the limit of excavation - a second slot, **F.100**, entered it at right-angles to the west and at their junction was a small pit (no relationships between the features could be identified); **F.101**, an irregular pit with a similar fill to F.99; **F.176**, a line of three postholes parallel to F.99; **F.177**, two sides of a squared? feature with a possible stakehole at its northern edge; **F.102**, a large feature only just visible between the ditch and the limit of excavation.

F.99

Narrow linear feature aligned north-northwest/south-southwest, length 0.75m - 1.25m (extending beyond edge of trench at north and possibly cut out by F98 at south). The surface fill was a dark green-grey with charcoal flecks. Phasing: Unknown.

F.100

Irregular feature or features possibly aligned west-southwest/east-northeast, width(s) 0.30m, length(s) c. 1.00m. The fills at the surface were as for F.99. Phasing: Unknown.

F.101

Irregular feature, length 1.50m, width 0.25-0.55m. The surface fill was as for F.99. Surface finds: late 1st-4th century AD. Phasing: Unknown.

F.102

Large feature, length east-northeast/west-southwest 3.75m, possibly truncated at south by F.98. The surface fill was a dark brown-black mottled with orange clay and charcoal. Surface finds: early 2nd-early 4th century AD. Phasing: Unknown.

F.176

Three possible postholes aligned north-northwest/south-southeast, diameters 0.15-0.30m. The fills at the surface were a pale grey-brown silt. Phasing: Unknown.

F.177

Two sides of a square (?) feature, visible size 0.50m x 0.30m. The surface fill was a patchy dark grey with orange-grey natural beneath. Probably heavily truncated by machining and cut out to east by F.102 and to south by F.98. Phasing: Unknown.

Beyond the ditch's southern edge were a series of seven linear features, F.103 - 109, most, but perhaps not all, were probably narrow ditches, - their alignments varied from north/south round to east/west. By the colour and composition of their fills and finds and stratigraphic evidence, some of the ditches can be loosely phased and may span the settlement period from early through to late Roman. At the southern limit of excavation, between ditches F.107 and F.108, an unidentified linear or 'pit' feature, F.178, was just visible.

F.103

Ditch aligned north-west/south-east, width 0.75m. The surface fill was a light grey-brown silt with clay and limestone fragments. Cut by F.98 at north. Surface finds: 2nd-3rd century AD. Phasing: Middle.

F.104

Ditch aligned north-west/south-east possibly turning to north-east at the north, width c. 0.30m. The surface fill was a black silt with some clay. Cut by F.98 at north. Phasing: Unknown.

F.105

Ditch aligned north-west/south-east possibly turning to north-east at north, width c. 0.50m. The surface fill was a mid-light brown clay silt mottled with yellow-brown clay with some charcoal. Cut by F.98 at north. Surface finds: late 1st-3rd century AD. Phasing: Middle.

F.106

Ditch aligned north-west/south-east, width c. 0.70m. The surface fill was a dark brown silt. Cut by F.98 at north. Surface finds: 2nd-3rd century AD. Phasing: Middle.

F.107

Ditch aligned roughly north/south, width c. 0.75m. The surface fill was dark grey-black silts with clay, charcoal and gravel inclusions. Cut by F.98 at north. Surface finds: late 1st-4th century AD. Phasing: Late.

F.108

Ditch aligned east/west, width c. 0.80m. The surface fill was a mid-dark brown silty clay with charcoal fragments throughout and some small gravel. Cut by F.107 at north. Surface finds: early 2nd-mid 3rd century AD. Phasing: Middle.

F.109

Ditch aligned north-west/south-east, width 0.75m. The surface fill was a dark brown clay silt with charcoal fragments throughout and some small gravel. Cut by F.98 at north. Surface finds: late 1st century AD. Phasing: Early.

F.178

Feature at limit of trench, visible size 1.30m north-east/south-west, 0.15m wide. The surface fill was a mid brown clay silt mottled with orange clay and some charcoal. Possibly cut by F.107 at west. Phasing: Unknown.

Outside this main group the features became relatively sparse:

A ditch, **F.110**, on a north-northwest/south-southeast alignment; a linear or 'pit' feature at the northern limit of excavation, **F.111**; a large posthole/small pit, **F.112**; a pit either cutting or cut by **F.111**, **F.113**; a second ditch on the same alignment as **F.110**, **F.116**. None of these features were excavated but surface finds may place them in an Early - Middle Roman phase. All were filled by a fairly uniform dark silt.

F.110

Ditch aligned north-northwest/south-southeast, width 1.00m. The surface fill was a dark brown clay silt with charcoal fragments throughout and some small gravel. Surface finds: early-mid 2nd century AD. Phasing: Early.

F.111

Linear feature at northern edge of trench, aligned east-northeast/ west-southwest, length 6.25m, visible width to 0.50m. The surface fill was a dark silt . Phasing: Unknown.

F.112

Pit or posthole, 0.85m x 0.65m. The surface fill was a dark silt . Surface finds: late 1st-2nd century AD. Phasing: Early.

F.113

Pit or butt-end of ditch aligned north-northwest/south-southeast. The surface fill was a dark silt . Cut or was cut by **F.111**. Phasing: Unknown.

F.116

Ditch aligned roughly north/south, width 0.70m. The surface fill was a dark silt . Phasing: Unknown.

The last two features in the trench were sample excavated. **F.117**, a broad shallow ditch on an east/west alignment, had a flat base pitted with small near-circular depressions - the hoof prints of cattle. **F.121**, aligned north-west/south-east was V-shaped with a slight slot at the base. The ditch fills of **F.117** were sealed flat by the alluvial layer [232]; excavation of **F.121** produced pottery dated to the 1st century AD though the upper part of the ditch was infilled by the alluvium.

F.117 Cut [303] Fills [304, 314-7]

A broad shallow U-shaped ditch cut aligned approximately west/east, width to 1.30m, depth 0.40m, at its base were 25-30 small sub-circular depressions c. 0.15m diameter and

0.05-0.10m deep, forming no regular pattern and often merging with each other. The basal fill [304] a dark grey silt with clay and sand inclusions and some weathering at the sides, fill at centre a thick band of mid orange sand with some gravel inclusions. Above the sand a light grey silty fill similar to [304] with patches of dark humic soil at its top. The fills were sealed flat by a band of alluvial clay, part of layer [232]. Excavated finds: [304] mid-late 2nd century AD. Phasing: Middle.

F.121 Cut [282] Fill [283]

Ditch cut aligned north-west/south-east, width 1.15m, depth 0.60m, a steep V-shape with a slight slot at the base. The fill was a mid-dark grey slightly sandy silt with moderate gravel inclusions, slot at base a browner grey with some weathered natural sand/clay. The ditch depression was infilled by alluvial clay [232]. Excavated finds: [283] 1st century AD. Phasing: Early.

Trench III

Beyond the western extent of the settlement proper Trench III revealed only three features of Roman or probable Roman origin and one post-Medieval field ditch.

Archaeological features:

A broad deep re-cut ditch, **F.75**, at the northern limit of the trench was on the main north-east/south-west alignment of the cropmark settlement. While excavation and surface collection produced exclusively early pottery (1st - early 2nd century AD) the upper third of the ditch was infilled by the alluvial clay [232] (Figure 6).

F.75 Cut [285] Fills [284, 265-7]

Ditch cut aligned north-east/south-west, width 1.85m, depth to 0.75m, steep-sided to a rounded flat base. The ditch was a re-cut of an original visible at the southern side of the base. The primary fill of the initial cut was a loose creamy grey sandy clay silt with rusty mottling, moderate gravel and rare charcoal inclusions. The primary fill of the re-cut was a mid grey sandy clay silt with occasional small gravel inclusions, main fill a dark grey-brown, mottled rust, compact silty clay with rare gravel inclusions. The ditch depression was infilled by alluvial clay [232]. Excavated finds: [267] 1st century AD; [284] late 1st-early 2nd century AD. Phasing: Early.

Parallel to **F.75**, just north of the junction with Trench II, was a shallow ditch or gully, **F.76**. Excavated and surface finds were datable to the 2nd - 3rd century and a slight depression at the top of the ditch was infilled by the alluvial clay [232].

F.76 Cut [295] Fills [296, 307]

Ditch cut aligned north-east/south-west, width to 0.95m, depth 0.25m, a wide steep sided V-shape with narrow flat base. The fill was a mid grey sandy clay silt with occasional gravel and charcoal inclusions. A slight depression at the top of the ditch was infilled by alluvial clay [232]. Surface finds and [296], 2nd-3rd century AD. Phasing: Early/Middle.

An east/west field ditch, **F.77**, was the sole post-Medieval feature (the sole non-Roman feature) recorded within the settlement area. It was also recorded in Test Station 4 to the west.

F.77 Cut [249] Fill [250]

Ditch cut aligned east/west, width 1.40m, depth 0.60m, a steep V-shape with narrow curved base. The fill was a mid grey-brown silty clay loam with lenses of iron staining, moderate gravel inclusions and frequent decayed roots, particularly along the southern edge. Surface finds: early 2nd century AD-modern. Phasing: Post-Medieval.

South of the junction with Trench II only one archaeological feature was recorded, an oval posthole. No finds were recovered.

F.78 Cut [262] Fill [263]

An oval posthole cut, 0.45m x 0.36m, near-vertical sides to a flat base. The fill was a mid grey-brown loam with occasional gravel and charcoal fragments. Phasing: Unknown.

Trench IV

Much of the covering layer of 'black earth' F.179 was left *in situ*, making clear identification of the features in the trench difficult. Only two features were sample excavated and are thus clearly defined.

In the collection from the surface of the machine spoil heaps 144 sherds of Romano-British pottery were recovered, the majority from the black earth layer, the date range of the material spanned the entire Roman period from the late 1st to the 4th centuries AD. The machine spoil from the lower levels of the trench also produced a small corroded coin (though there was no evident circulation wear). The coin, a Constantinian commemorative issue, was minted between AD 330 - 335, and provides a tight 'earliest date' for its deposition. The lack of circulation wear would seem to put this no later than the middle of the 4th century (Appendix 6).

Archaeological features:

At the south of the trench, at the junction with Trench II, the narrow ditch F.106 was seen to continue into the centre of the trench before being truncated at right-angles by a small ditch or gully F.85 parallel to the late ditch F.98. The gully was not seen to extend westwards into Trench II and must either butt or turn within the next 3 - 4m.

F.85

Narrow ditch or gully aligned north-east/south-west, width 0.55m. The surface fill was a dark grey-black clay silt with some gravel and charcoal inclusions. Surface finds: 3rd century AD. Phasing: Late.

Beyond F.85 and seemingly continuous with F.106 (though the sudden marked change in size would make this unlikely) a broad ditch F.169 ran parallel and to (and beyond) the east side of the trench. A section cut across the ditch revealed a wide V-shaped profile with a pointed base and at the eastern side a step up to a narrow platform or upstand of natural subsoil. Beyond the upstand a flat 'terrace' cut c. 0.15m deep extended beyond the limit of excavation. The primary fills of the ditch had a peaty

consistency and had a high organic content. Between the lower fills and the main upper fill were several fragments of limestone building stone and a thick lens of redeposited natural clay and gravel (Figure 6).

A bulk sample for flotation was taken from the primary fill of F.169 for subsequent environmental analysis (see Discussion).

F.169 Cuts [323, 324] Fills [325-8, 339]

Ditch cut aligned north-west/south-east [324], width 1.10m, depth 0.50m, steep sided to a narrow rounded base. At the east a near-vertical cut at the top forms the western edge of an upstand of natural clay c. 0.30m wide and 0.15m high. The eastern edge of the upstand was formed by a flat-based terrace cut [324], 0.15m deep and 0.30m wide, extending beyond the limit of excavation (fill [327]). The primary fill of the ditch [328] was a dense friable black organic, almost peaty, silt, over fine grey silts with frequent small gravel inclusions. The upper fill [326] was a mottled black/brown/orange/green fine sandy silt with occasional small gravel, bone and charcoal fragments and frequent pottery sherds. Towards the south of the excavated section the fill contained a thick lens of redeposited natural clay/gravel and there were occasional limestone fragments along the eastern edge. The fill of the terrace cut was the same as fill [326]. At the trench edge fill [326] was seen to be sealed flat by the black soil layer filling the top of ditch F.87, a part of F.179. Surface finds: 1st-4th century AD; Excavated finds: [325], [326], [328] and [339] late 1st-late 3rd century AD; [327] 2nd century AD. Phasing: Middle.

To the north of the excavated section the line of F.169 was lost beneath a covering of black soil for the length of the trench. However, at the centre of the trench a shallow dip infilled with alluvial clay betrayed the presence of F.87, a ditch cutting at right-angles across its line. The upper part of F.87 was excavated where it cut through the continuation of the upstand at the east of F.169.

F.87 Cut [337] Fill [338]

Unexcavated ditch cut aligned north-east/south-west, width 1.25m, depth unknown, cut across F.169 at right-angles. The upper fill was similar to and probably a part of the black soil layer F.169. Surface finds: mid 2nd-mid 4th century AD. Excavated finds: [338] early 2nd-mid 3rd century AD. Phasing: Late.

At the far northern end a second section was excavated across the width of the trench. The main ditch thus revealed, F.86, while continuing the line of F.106/F.169 was both of a different form, with a wide flat slotted base, and different fill, a far less organic sandy silt. At the western side of F.86, and continuous with it, ditch F.167 entered at right-angles, only its southern edge fell within the trench (Figure 6). Its fills were continuous with those of F.86. The upper fill of the ditches was covered by a thin band of the black earth F.179 and the central depression was infilled by the alluvial clay [232]. Pollen monolith samples were taken through the section exposed to the north and a bulk sample for flotation was taken from the primary fill of F.86 for subsequent environmental analysis (see Discussion).

F.86 Cut [291] Fills [288-90, 308, 311]

Ditch cut aligned north-west/south-east, width 0.90m, depth 0.55m, steep sided (particularly at west) to an uneven flat base with a broad slot at the west c. 0.10m deep. The ditch was continuous with F.167 which entered on its western edge. The primary and main fill [289] was a friable grey-brown sandy silt, mottled with orange Fe-stained sand and grey-black from charcoal fragments, slightly greyer and siltier towards the base. The upper fill [288] was a grey black fine sandy silt with common charcoal flecks and two bands of washed sandy silt, was similar to and possibly a part of the black soil layer F.179. The ditch depression was infilled by [308], a band of alluvial clay up to 0.25m deep and part of layer [232]. Surface finds: late 1st-2nd century AD. Excavated finds: [288], [289] and [290] late 1st-late 3rd century AD. Phasing: Middle/Late.

F.167 Cut [292] Fills [288-9, 308]

Ditch cut aligned approximately west/east, continuous with F.86 at its east, width unknown, maximum depth excavated 0.45m. The fills were exactly as, and continuous with, those of F.86. Phasing: Middle/Late.

Trench XIV

An additional trench was excavated perpendicular to Trench II at the point where the possible beam slots/foundation trenches F.80 (see above) were seen tight up against its northern edge.

In the collection from the surface of the machine spoil heaps 51 sherds of Romano-British pottery were recovered, the majority from the 'black earth' layer F.179, the date range of the material spanned the entire Roman period from the late 1st to the 4th centuries AD.

Archaeological features:

Beyond the northern edge of F.80 were two sub-circular pits or postholes, F.81 and F.82, (possibly regular patches of fire-affected subsoil), neither was excavated.

F.81

Sub-circular pit or posthole, diameter c. 0.60m. The surface fill was an ashy grey-black silt with charcoal inclusions. Phasing: Unknown.

F.82

Sub-circular pit or posthole, diameter c. 0.40m. The surface fill was an ashy grey-black silt with charcoal inclusions. Phasing: Unknown.

The whole of the central part of the trench was occupied by a spread of material similar to (and probably the same as) the black earth F.179. A depression at its western edge infilled with alluvial clay was partially excavated for a bulk sample of the black soil and while no clear feature emerged the area has been assigned Feature No. F.83.

F.83 Fill [372]

A large irregular area sealed by [372], a layer of black organic soil similar to and probably a part of F.179. Surface finds: mid 2nd-4th century AD. Phasing: Late.

To the north of F.83 an east/west feature **F.84** was sample excavated based on the (false) assumption that it was another ditch - the covering of black earth and the seeming homogeneity of its surface fill compounding the assumption. However, on excavation the feature was shallow with irregular edges and the fills to the north and east subtly different. The unexcavated portion to the west, when cleaned of its dark covering showed perhaps two or three separate fills and the whole is likely to represent as many separate individual shallow features.

F.84 Cut [293] Fill [294]

A broad feature, or possibly two intercutting features, pits or shallow ditches, c. 1.35m north/south and c. 0.35m deep. The fill was a friable grey-brown sandy silt with occasional charcoal flecks and small-medium gravel, covered by a thin layer of black/brown loam similar to F.179. Surface finds: late 1st-3rd century AD; Excavated finds: [294] 3rd-4th century AD. Phasing: Late.

Beyond F.84, and bearing a direct but unknown relationship to it at the west, was a further feature, **F.174**, its surface fill similar to that of F.84. Its edges were well defined and while possibly akin to F.84 it had more of the appearance of a ditch.

F.174

Ditch aligned north-north-east/south-southwest, width 1.30m. The surface fill was as for F.84. Phasing: Unknown.

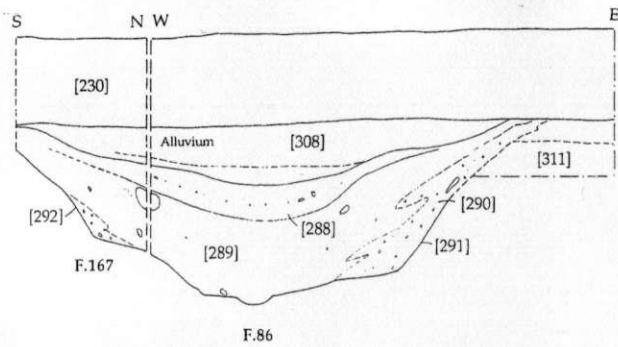
Test Station 4

F.77

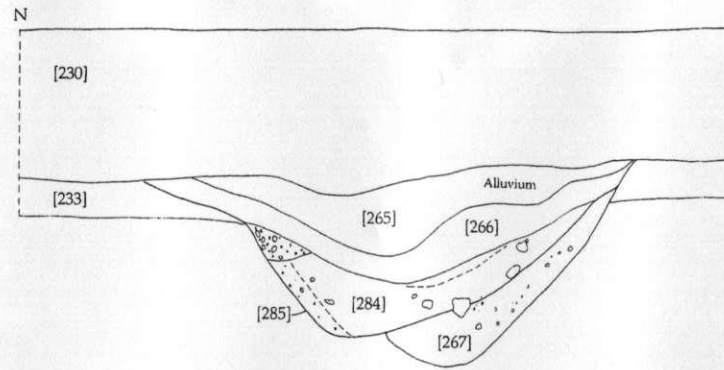
See Trench III.

No archaeological features were recorded in Test Station 8.

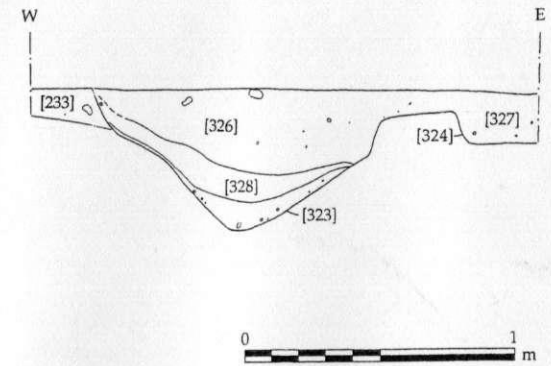
F.86/167



F.75



F.169



F.96, F.95, F.94/168

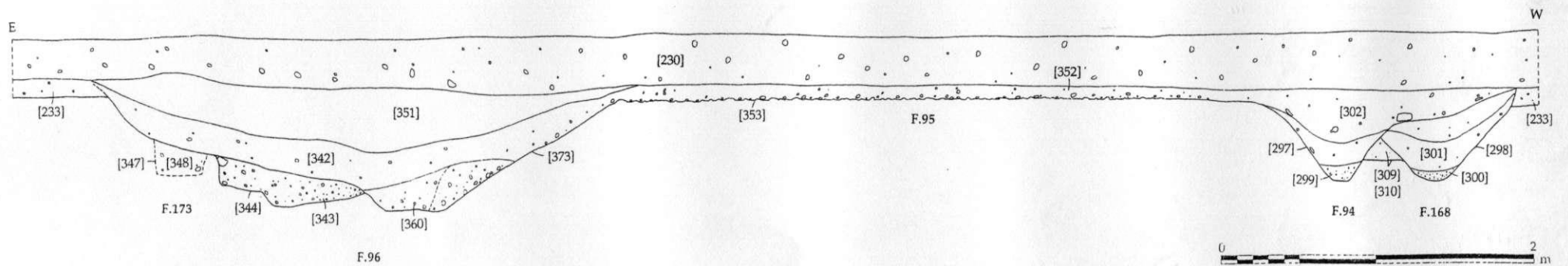


Figure 6: Central Area Sections

Discussion

For general discussion of Trenches II, III, IV and XIV the loose phasing periods assigned to the features will be used in an attempt to present an overall picture of the possible development and abandonment of the settlement area. However, it must be re-stated that until further excavation all phasing has to be seen as purely provisional. Two particular problems should also be taken into account: a feature assigned to a later phase by its final infilling/abandonment may have originally been dug/constructed during an earlier one, the principal example being the roadway through the settlement which probably spans the entire period of the occupation; some features are assigned phasing purely on finds recovered upon surface cleaning which may well be either residual or intrusive - particularly the latter, due to the coverage of the artefact-rich soil layer F.179.

The main area of settlement-related activity lay on the eastern side of the roadway, to the west the area of denser activity may extend no more than 15 - 20m - by Trench III the settlement features have apparently given way to enclosed fields.

Early Period

The road that passed through the settlement area, whether it is in fact the Fen Causeway or just a minor road specifically for access into the settlement, has to be assigned initially to the early period of the site's occupation. The Fen Causeway is thought to have been constructed in the latter part of the first century AD and the quantity of early pottery recovered from the site, both from surface finds and from within excavated features, indicates that the initial stages of the settlement must have been laid out at, or soon after, this time. The extensive quarrying recorded just to the east of Area A (Mortimer 1995) must have been providing gravel either for the foundation of the Fen Causeway as it crossed the fen from Peterborough to Whittlesey Island or for subsequent major repairs to its surface - at least 2000 -2500m² (1200 - 1500m³) of gravel had been extracted (Figure 8). The, admittedly few, finds recovered from excavation of the quarries pointed to a first century AD date.

With the road would have come settlement, if only initially by the military. The northern tip of Whittlesey Island would have been the 'first and last' of a chain of settlements across the interior of the Fens from Peterborough to the higher ground to the east at Denver in Norfolk. At March, the next island-landing of the Fen Causeway, the settlement of Grandford (like the settlement at Whittlesey, situated at the north-western tip of the island) may have grown up around the site of a Roman fort. The Fen Causeway makes a right-angled turn around the fort which, though unexcavated, is visible on aerial photographs (Potter 1981).

Of the features recorded within the test trenches a few are possibly attributable to this early phase. The features are primarily ditches, two running roughly parallel to the road to its east and two at 90° to it to the west (F.109, F.121; F.75, F.76). The ditches may mark divisions within broader enclosures set out to either side of the road, and could have been either settlement- or agriculture-related. Two further, unexcavated, features, F.110, a ditch at an oblique angle east of F.109, and a posthole beside it, F.112, may also be of an early date.

Middle Period

The outer of the two ditches which line the western side of the road, F.168, would appear to have infilled - and not been re-cut/cleaned again - at some stage during the middle Roman period, the finds recovered from within its fills date up to the third century but not beyond. The ditch had been re-dug about a metre to the east (F.94), cutting into the road surface and thereby narrowing it. The same has occurred at the eastern side of the road with the wide re-cutting of ditch F.96, here only the very lower part of the earlier ditch survives.

Middle period activity centres on Trench IV to the east of the road. Four of the small ditches at the south of ditch F.98 (F.103, F.105, F.106 and F.108) had surface finds dating to no later than the third century AD. No interpretation can be given as yet for these features. Two features take up the length and breadth of Trench IV (from south), F.169 and F.86, though their forms and lower fills differ there is nothing in the finds evidence to separate the two ditches. Their line and the fact that both were sealed by the black soil layer F.179 could suggest that F.169 becomes or feeds into F.86 at a point somewhere beyond the later ditch F.87 which cuts across the centre of the trench. F.86 (with the east/west feeding ditch F.167) has nothing to differentiate it from a standard field/drainage ditch.

F.169, with its raised platform of natural subsoil cut away to the east into a flat terrace and the limestone building fragments along the ditch side, deserves closer attention. The combination of ditch, platform and terrace could represent one side of a structure with a platform for a stone wall foundation and adjacent drainage ditch. Examples of such a building technique are perhaps more common in the Medieval and post-Medieval period than in the Roman and if the platform does represent a stone-based wall then it is possible that it was of military rather than domestic construction. However, two other excavated settlement sites along the Fen Causeway (Grandford & Flaggrass; Potter 1981) show a move away from timber frame to stone-based buildings in the early 4th century. The limestone had been transported, along the Fen Causeway, from the east Midlands.

Flotation of environmental samples taken from the bases of the two ditches produced very good results with preservation of the plant remains generally very high. Charred plant remains, particularly the spiklets,

grains and glume bases of emmer and/or spelt wheat, oats and hulled barley, were found to be abundant in the sample taken from the base of F.169. The cereal remains probably represent processing waste and could point to one possible function for any structure which stood above the ditch. The sample also contained some wetland species (e.g. sedge) but otherwise contained a fairly typical (wild) arable flora. F.86, of approximately the same period and possibly even the same ditch, contained all the same cereal species but in far lower quantities along with more typical grassland plants. The counts for wetland flora were higher, with four species present.

The results from the pollen analysis of the ditch fill (F.86) and the black earth above it support those of the flotation, illustrating an open environment with very few trees growing in the local area. The site, at this period, appears to have been a rather wet habitat supporting grass and sedge vegetation though with some evidence of cereal cultivation and pastoral activity.

A broad and fairly shallow ditch to the east, F.117, running at an oblique angle to the other features, almost directly east/west, had been heavily disturbed at its base by the passage of cattle, the hoof prints still clear in the sandy clay natural subsoil.

Late Period

The roadway with its broader re-cut ditches continued to function throughout the late period. The thin layer covering its surface was similar to the surrounding black soil, F.179, but more compact and grittier, it contained, as did the surface itself, pottery dating up to the fourth century AD. Within the broad eastern roadside ditch, on the outer sloping shelf, was a circular and vertical sided posthole F.173, its fill contemporary with the latest, pre-alluvial, fill of the ditch. Only a one metre wide slot was excavated through the ditch and it is not known whether the posthole is a single feature or one of an extended line of posts. If part of a line of posts they could be spaced from 0.40m apart upwards and their function can only be guessed at. If closely spaced they may have formed a fenceline or revetment along the ditch edge, perhaps as a boundary to the main area of the midden. A suggestion has been made (D. Hall *pers. comm.*) that if well-spaced, the posts may have marked the line road in times of flood when silts and water masked its course - similar to the posts which mark out roads liable to heavy snows.

The primary fill of the re-cutting of ditch F.96, produced, along with pottery dating to the 2nd - late 3rd century, a small Roman coin, a sesterius. The coin was corroded and worn. Sestertii commonly circulated in Britain during the mid 1st and 2nd centuries AD, their circulation rapidly decreased after the end of the 2nd century and production completely ceased around AD 260.

The main features to the east of the road were three roughly parallel ditches at right-angles to it. The two larger, F.87 and F.98, were c. 8.50m apart, a small ditch/gully, F.85, ran to the north of F.98. Running approximately with the contours of the land these ditches cannot be seen simply as drainage but may have been part of a remodelling of the settlement and, if F.169 - which they cut across - represents some form of structure, then a fairly major one. Another possibly later ditch, F.107, was itself truncated by F.98.

To the west of the road the later features are less clear but potentially of greater interest. The shallow gully F.92 *may* have served as some form of boundary to the midden deposit F.179, though the dark soil has subsequently spread beyond it to the north. In section the soil can be seen to infill the gully from the east but does not extend beyond it. West of the gully are two intercutting trenches, F.80, straight and narrow and possibly representing beam slots or foundation trenches. To the north the bulk of Trench XIV was left with its covering of midden material, masking the presence of further features (F.83), however, at the end of the trench the shallow excavated feature, or features, F.84, again contained late pottery.

The later period would, from the limited area so far investigated, seem to have culminated in the deposition of the extensive midden deposit F.179 - no features have been seen to cut through this layer. The zone of midden material is well defined over a c 25m² area, and is present both as fills in cut features as well as on and incorporated within the buried soil. It stands out as a rich, black loam, full of comminuted organic matter and charcoal, and is notably artefact-rich. The large quantity of pottery within it is responsible for the extensive surface finds scatter which initially indicated the presence of the settlement and it includes large quantities of well-preserved bone as well as brick/tile fragments and limestone building stone. Middens associated with Roman rural sites are not an every day occurrence in the archaeological record. Perhaps the only similar site in the county is the area of blackened, artefact-rich ploughsoil associated with the Romano-British farmstead site of Haddon Lodge Farm (French 1994, see fig 36). However, the midden area at Whittlesey is better preserved and far less affected by recent agricultural disturbance.

The whole area has been sealed by the, potentially quite rapid, deposition of alluvial clay. The clay is a riverine deposit, laid down by the seasonal floodwaters of one of the palaeochannels of the Nene and has provided a high degree of protection for the old land surface from later agricultural activities. The alluvium survives intact to depths of up to 0.40m within the dips and hollows created by the partial infilling of the later and deeper features. One of the main aims of any future work in the area must be to establish cause and effect with regards to the abandonment of the settlement and the onset of alluviation - and with that as precise a dating as possible for the two. Was the settlement's abandonment caused by the inability to manage the rising waters, or did the alluviation only

commence after abandonment due to purely natural causes, perhaps exacerbated by the deterioration of the settlements drainage system.

Features of unknown date

A further fifteen recorded features, including pits, ditches, postholes and possible beam slots, cannot as yet be placed in any tentative phased group. The beam slots/foundation trenches occur to both sides of the road, at the west beyond F.80 (F.90) and at the east just beyond the road ditch (F.99/100) and at the edge of the main feature complex (F.111). There are postholes which may be associated with the slots to the north of F.80 (F.81/82) and the east of F.99/100 (F.176) with possibly large pits to one side of each group (F.89 and F.102).

North-eastern Area

Cropmark evidence shows the settlement complex and its surrounding field system continuing to the north and east, much of it above the area currently under evaluation. At the north of the area, in Trench XI, two ditches follow the settlement's alignment and perhaps mark its southern boundary. At the east four ditches on north/south and east/west alignments echo those excavated in Stonald Field and probably form part of the same system of low-lying paddocks.

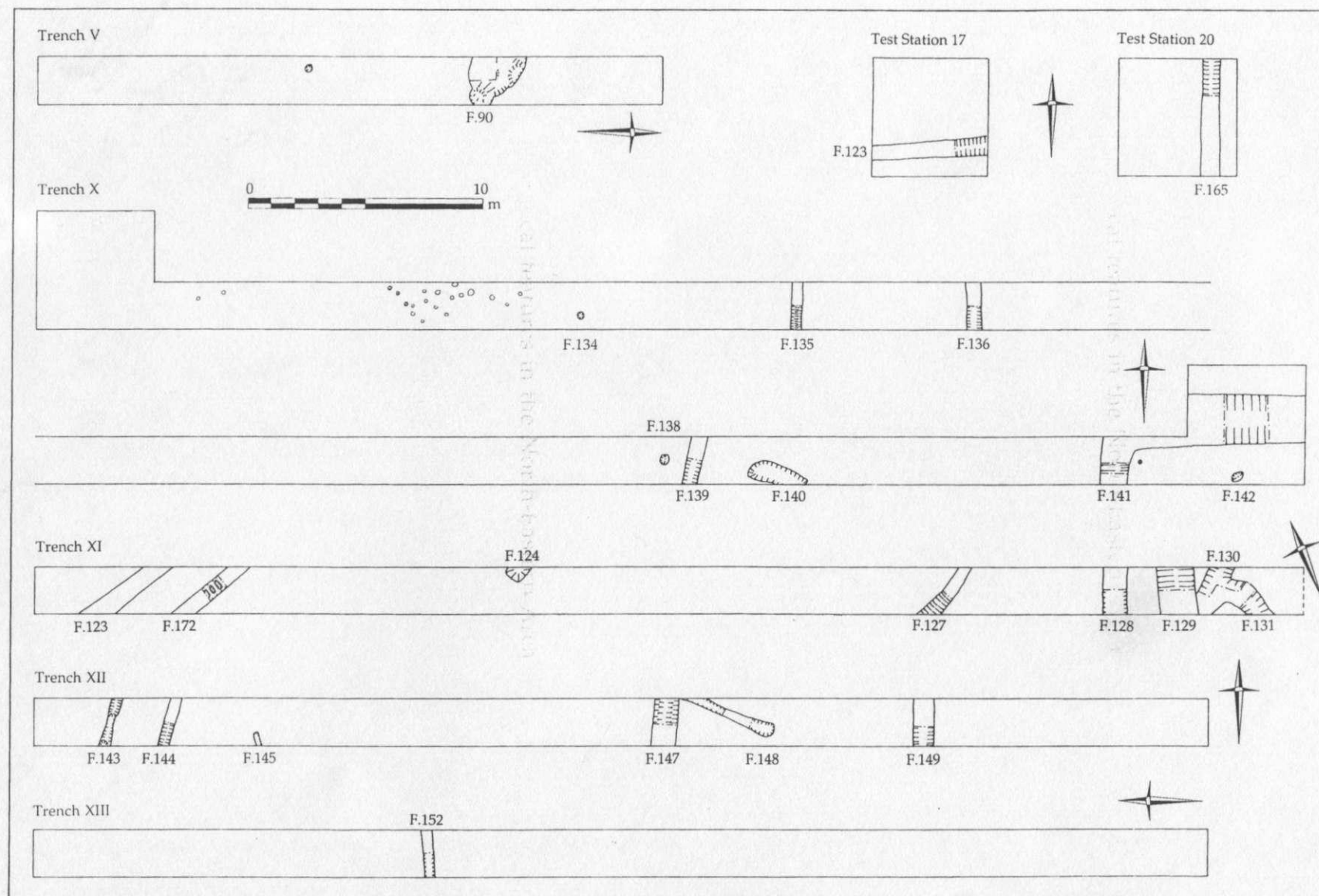
A further ten ditches in Trenches X, XI and XII lie on different and seemingly random alignments and while some probably delineate earlier phases of activity within the Roman period, others may represent the remnants of prehistoric field systems. The density of finds in this eastern strip was exceedingly low and further excavation would be required before any accurate dating could be assigned. Of particular note were two parallel ditches at the west of Trench XII, aligned north-east/south-west and 2m apart, the eastern ditch may have been cut, or re-cut, as a post trench. Just to their east lay a single beam or fence slot, at an angle indicating that if there was a second it lay beyond the trench to the south.

Iron Age pottery was recovered from the buried soils in Trench X and three postholes (forming a possible east/west alignment) and an elongated shallow pit would all appear to belong to a pre-Roman period. A further posthole to the west in Trench V lay to the south of a group of shallow pits (or one large irregular pit) containing pottery dating to the late Iron Age. From within the subsoil of the same trench a (probable) Bronze Age cylindrical loom-weight was recovered.

The dearth of finds material recovered from the features in this area makes any precise dating of them impossible. From the few pottery sherds collected, the features' fill types and their relationships to the underlying buried soils and occasionally overlying/infilling alluvium very broad dating can be offered in most cases, often only as 'prehistoric' or 'Roman'. Their probable dating appears at the end of the context descriptions.

See Figures 7 & 8

Figure 7: Archaeological features in the North-Eastern Area



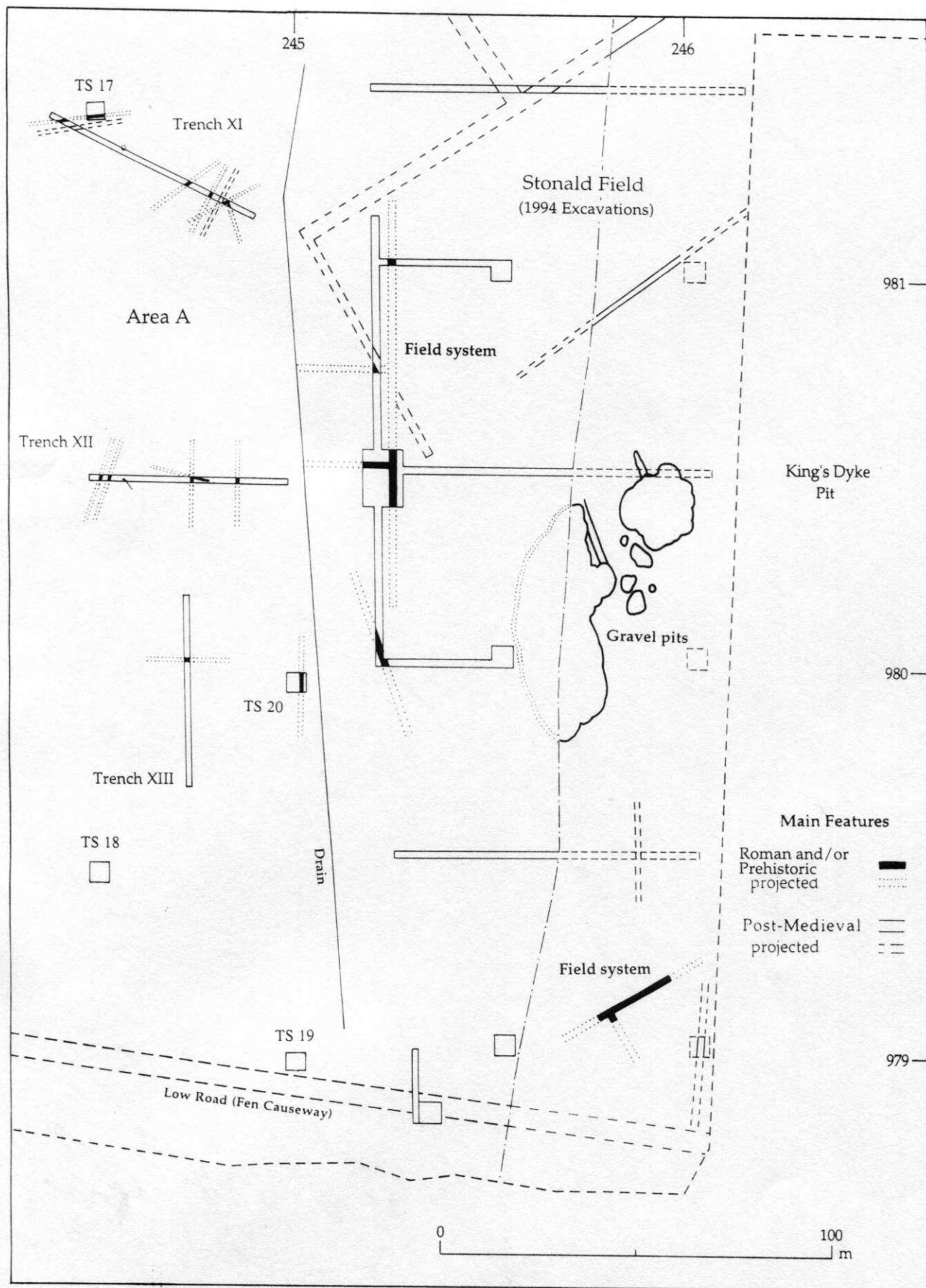


Figure 8: Features in the North-Eastern area and Stonald Field (1994)

Trench V

Only two features were recorded in Trench V, **F.91** at the north of the trench was a shallow irregular pit or group of intercutting pits (no cuts were visible either during excavation or in section). Roughly ovoid in form with a flat but irregular base the charcoal-rich fill produced pottery from the late Iron Age. Seven metres to its south was a shallow owl-shaped depression, of either archaeological or natural formation. Collection from the sub-soil spoil-heap produced further Iron Age sherds, two worked flints and a large cylindrical loom-weight of fired clay which may date to the Bronze Age.

Archaeological features:

F.91 Cut [247] Fill [248]

A broad, shallow uneven cut or series of cuts approximately ovoid in plan, 2.00m north/south and extending beyond trench edges at west and east, depth variable 0.10-30m. The fill was a dark grey-black sandy silt mottled with orange sand and charcoal flecks and fragments. Surface finds: early-middle Iron Age; Excavated finds: [248] up to early 1st century AD. Phasing: Late Iron Age?.

F.170 Cut [349] Fill [350]

Shallow circular posthole or natural depression, diameter 0.45m, depth 0.10m, bowl-shaped with a flattish base. The fill was a mid grey sandy clay with charcoal flecks throughout. Phasing: Prehistoric or Roman.

Trench X

The features recorded in Trench X range from prehistoric through to post-Medieval, they are described in location order from west to east.

Towards the western end of the trench, and covering an area of perhaps 15m, the natural subsoil was pock-marked by small circular pits or depressions with dark grey silty fills, possibly forming very rough 'lines' aligned north-west/south-east. While probably of natural formation, tree roots or solution hollows, the possibility remains that they were the product of some agricultural process such as drilling. They have not been assigned a Feature number.

Archaeological features:

A posthole lay to the eastern end of this area, **F.134**, circular and steep sided, no finds were recovered from its fill.

F.134 Cut [365] Fill [366]

Circular posthole, diameter 0.25m, depth 0.20m, near-vertical sides to a flat base. The fill was a dark brown-grey sandy silty clay, mottled rust. Phasing: Prehistoric or Roman.

Two parallel ditches aligned north/south and 7m apart ran at right-angles to the trench, **F.135** and **F.136**, the former narrow and V-shaped, the latter

broad, deeper and with a flat base. No dateable finds were recovered from either fill but their form and fill type suggest a Roman origin.

F.135 Cut [363] Fill [364]

Ditch cut aligned north/south, width 0.45m, depth 0.25m, steep sided to a V-shaped base. Cut through buried soil layer. The fill was a creamy grey silty sandy clay with rust mottling and occasional gravel and charcoal inclusions. Excavated finds: [364] fired clay. Phasing: Roman.

F.136 Cut [361] Fill [362]

Ditch cut aligned north/south, width 0.90m, depth 0.40m, fairly steep sided to a flat base. The fill was a mid grey sandy silty clay with rust mottling rare gravel and occasional charcoal fragments. Phasing: Roman.

F.138, a second posthole of near-identical form to F.134 (though its fill contained frequent charcoal inclusions) lay to the western side of a third, probably Roman, ditch, **F.139**. The ditch was shallow with a flat base and was not parallel to F.135-6 but aligned to the north-northeast.

F.138 Cut [332] Fill [333]

Circular posthole cut, diameter 0.40m, depth 0.28m, steep-sided to a flattish base. The fill was a dark grey-brown sandy silty clay with frequent charcoal inclusions. Excavated finds: [333] fired clay. Phasing: Prehistoric or Roman.

F.139 Cut [335] Fill [336]

Ditch cut aligned south-southwest/north-northeast, maximum width 0.70m, depth 0.25m, steep-sided to a flattish base. The fill was a mid brown-grey sandy clay with very frequent charcoal inclusions and small gravel towards the base. Cut buried soil layer [233]. Phasing: Prehistoric or Roman.

The charcoal-rich fill of a shallow sub-rectangular pit, **F.140**, though producing no dateable finds (only undiagnostic fired clay fragments) had the appearance of a pre-Roman feature.

F.140 Cut [330] Fills [331, 367]

Sub-rectangular pit, (or butt-ending ditch turning to the south), width 0.80m, depth 0.20m. shallow with a flat base. The fill was a brown-grey sandy clay with large gravel inclusions and frequent charcoal inclusions, at the base of the pit was a lens of sandy silt with very high charcoal content. Excavated finds: [331] fired clay. Phasing: Prehistoric?.

A wide east/west drainage/boundary ditch, **F.141**, turned south at its western end or formed a T junction with a north/south ditch. Within its dark loamy fill were decayed tree roots and a modern glass bottle was recovered from the machine-excavated fill. The ditch was post-Medieval and possibly infilled during the 20th century.

F.141 Cut [312] Fill [313]

A broad ditch cut aligned east/west turning at the west to south, and becoming narrower. Widths 2.00m and 1.10m, depth where excavated in north/south arm 0.30m. The fill was a mid brown-grey silty clay with rust mottling, moderate gravel content and occasional lengths of decaying wood. A brown glass bottle observed on the spoil-heap probably came from its fill. Phasing: Post-Medieval.

In the crook of ditch F.141 was a large ovoid posthole, **F.142**. One sherd of dateable pottery (1st - 2nd century AD) was recovered from its fill.

F.142 Cut [305] Fill [306]

Oval posthole cut, 0.52m x 0.40m, very steep sided to a flat base. West side had a gentler angle at the top (and correspondingly east side appeared undercut at base), perhaps indicating post pulled out and over that way. The fill was a mid brown-grey silty clay with rust mottling, moderate gravel and charcoal flecks. Excavated finds: [306] late 1st-2nd century AD. Phasing: Roman.

Trench XI

Eight features were recorded in Trench XI ranging in date from the prehistoric or Roman through to the post-Medieval - all were sample excavated but no dateable finds were recovered. The features are introduced for discussion from west to east.

Archaeological features:

A Roman ditch aligned east/west, **F.123**. The feature was excavated to the east in Test Station 17 (see below).

F.123

Ditch aligned east/west, width 0.80m. Continued into Test Station 17 where excavated. See below for context descriptions. Phasing: Roman.

Parallel to F.123, and c. 1.50m to the east, was one of the site's more unusual features, **F.172**. At the machined surface of the trench it appeared as a broad shallow linear bowl-shape, c. 1.50m wide, filled with layered lenses of fine yellow sand and orange-brown silts. At the base of the feature, beneath the sand/silt, were a row of evenly spaced sub-rectangular pits or postholes with, at their centre, narrow post pipes which were just visible in the covering sand. The feature was seen to cut through the buried soil above the natural gravels and the depression above the sand was infilled by ploughsoil. Probably Medieval or post-Medieval in origin it may represent a fenceline, the infilling of sand and silt perhaps the wash from a sand/gravel trackway to one side. No other explanation for the fine layered fill can be offered.

F.172 Cut [371] Fill [372]

A linear depression or broad shallow cut, aligned east/west, width c. 1.50m, depth c. 0.15m maximum. Within depression the fill was banded lenses of yellow sand and orange-brown silts, very fine and clean, possibly spreading out flat on northern side of depression where truncated. Sands 20-40mm deep, rest of depression filled by Ploughsoil. Beneath sand/silt and perpendicular to the alignment of the depression are regularly spaced (c. 0.05-0.10m apart) sub-rectangular cuts c. 0.45m long, 0.15m wide and 0.10m deep filled with a slightly orange-brown silt and with (on the one cut half-sectioned) a central cylindrical core of grey-brown clay 50mm in diameter. Cut buried soil layer [233]. Phasing: Probably post-Medieval.

A shallow pit, **F.124**, or possibly the butt end of a ditch heading to the north-east.

F.124 Cut [319] Fill [318]

Small pit or butt end of ditch aligned west-southwest/east-northeast, width c. 1.00m, depth at butt end 0.20m. The fill was a dark grey soft friable silt with frequent charcoal and small gravel. The fill was similar to the buried soil [233] the feature cuts. Phasing: Prehistoric or Roman.

A ditch aligned approximately west-east, **F.127**, possibly curving round slightly to the north.

F.127

Ditch cut aligned east/west, width 0.70m. Phasing: Prehistoric or Roman.

A Roman ditch, **F.128**, aligned south-southwest/north-northeast, wide and shallow. The upper part of the ditch was infilled by the alluvial clay [232].

F.128 Cut [321] Fill [320]

Ditch cut aligned south-southwest/north-northeast, width 0.96m, depth 0.27m, fairly steep sided to a flattish base. The fill was a mid grey/olive brown clay, plastic with few gravel inclusions concentrated at base. Top of ditch was infilled by alluvial clay [232]. Phasing: Roman.

Parallel to **F.128** was a broad and deep V-shaped ditch, **F.129**. Its form and fills were noticeably different to those of any other feature on the site. The fills were a compact silty gravel, similar to the surrounding natural subsoil and the ditch was difficult to see in the narrow trench width, only the narrow silty infill of its surface depression being initially visible. At its east it truncated the western part of ditch **F.130** which in turn cut the northern end of a ditch at right-angles to it, **F.131**. **F.130** and **F.131** had shallow flat-based and steep V-shaped profiles respectively and both had compact clay fills.

F.129 Cut [322] Fills [354-7]

Ditch cut aligned south-southwest/north-northeast, width 1.80m, depth 0.75m, a broad V-shape steep sided to a narrow pointed base. Base fills dirty orange loose gravels below a compact pale yellow-grey silt with common gravel and charcoal flecks. Upper fills, dirty orange-brown sandy silt with 50% gravel and occasional charcoal fragments below a compact dark grey silty clay with frequent gravel and charcoal fragments. Cut **F.130**. Excavated finds: [356] one sherd undateable. Phasing: Roman or post-Medieval.

F.130 Cut [369] Fill [368]

Ditch cut aligned east-northeast/west-southwest, width 0.85m, depth 0.30m, steep sided to a flat base. The fill was a moderately compact and slightly plastic bright grey silty clay with occasional charcoal fragments and rare gravel inclusions. Cut by **F.129**, cut **F.131**. Phasing: Prehistoric or Roman.

F.131 Cut [359] Fill [358]

Ditch cut aligned c. north/south, width 1.10m, depth 0.50m, a steep V-shape. The fill was a compact and friable mottled grey-brown very silty clay with occasional charcoal flecks and moderate gravel towards base. Cut by **F.130** at north-west. Phasing: Prehistoric or Roman.

Trench XII

Despite containing possible settlement-related features Trench XII, like all others in the east of the site, failed to produce any dateable finds material. From the six features recorded only one piece of degraded bone was recovered. The features are described from west to east.

Archaeological features:

Two parallel ditches, **F.143** and **F.144**, were 2.00m apart and aligned north-northeast/south-southwest. Both ditches contained similar silty clay fills which were sealed flat by the remnants of the (ploughed-out) alluvial clay [232]. They would appear to have been broadly contemporary, at least in their filling/abandonment. The 'outer' ditch, **F.143**, was uneven both in width and depth with, in the 2.00m length excavated, a narrow shallow central part (38:20cm) and broader deeper sections at the trench edges (55:50cm). Both deeper parts had the appearance of being 'cut-in' along the line of an original shallow trench and at the southern section a re-cut or 'post pipe' was visible within the broader cut. The 'inner' ditch, **F.144**, was straight and clean, a steep sided V-shape with a narrow pointed base.

F.143 Cut [260] Fill [261]

Ditch cut aligned north-northeast/south-southwest, narrow, steep-sided but very uneven with deeper cuts or re-cuts at the north and south of the excavated section. Width at section 0.55m, at centre 0.38m, depth at section 0.50m, at centre 0.20m. The fill was a light grey-brown plastic silty clay with some sand and very occasional charcoal flecks and small flint pebbles, greyer and cleaner towards base. Greyer silt at base forms fill of posthole or re-cut at eastern side of section. Sealed by ploughed-out alluvium [232]. Phasing: Prehistoric or Roman.

F.144 Cut [258] Fill [259]

Ditch cut aligned north-northeast/south-southwest, width 0.55m, depth 0.50m, a steep-sided V-shape with a narrow pointed base. The fill was a light grey-brown plastic silty clay with some sand and very occasional charcoal flecks and small flint pebbles, greyer and cleaner towards base. Sealed by ploughed-out alluvium [232]. Phasing: Prehistoric or Roman.

Within the double ditch line, 4.00m to the east, was the one possibly settlement-related feature, **F.145**. Extending 0.60m from the southern trench edge it had a square profile, narrow, near-vertical sided and flat-based. The northern butt end was square and steep and all its edges were clean and unweathered. Like the two ditches its fill was sealed flat by the alluvial clay [232].

F.145 Cut [272] Fill [273]

Beam slot or very narrow clean-cut butt-ending ditch aligned north-northwest/south-southeast, straight narrow and near-vertical sided with a flat base, square in section, extends 0.60m from trench edge. Width 0.30m, at base 0.13m, depth 0.28m. The fill was a pale grey-brown clay, plastic and clean with very occasional charcoal flecks and small pebbles. Patch at top of orange natural clay. Sealed by ploughed-out alluvium [232]. Phasing: Prehistoric or Roman.

A Roman ditch aligned north/south, with a broad shallow U-shaped profile, F.147, cut, at or just beyond the northern trench edge, a narrow butt-ending ditch aligned north-west/south-east, F.148. The fill of ditch F.148 was a very pale grey clay silt, almost white and unlike that of any other feature in the area. Its butt end was broader than its main length, very steep sided with a flat base.

F.147 Cut [276] Fill [277]

Ditch cut aligned north/south, width 0.65m, depth 0.35m, a broad U-shape, sloping sides to rounded base. The fill was a grey-brown sandy clay-silt with occasional small-medium gravel and very occasional charcoal flecks. Phasing: Roman.

F.148 Cut [278] Fill [279]

Ditch cut aligned north-west/south-east, steep butt end at east, shallow, vertical sided to flat base, narrows westward, width at butt 0.60m, at west 0.35m, depth c. 0.20m. The fill was a dense very pale grey-beige sandy clay silt, plastic, with occasional small-medium gravel and very occasional charcoal flecks. Phasing: Prehistoric or Roman?.

A second Roman ditch on a north/south alignment, F.149, had a broader deeper V-shaped profile.

F.149 Cut [280] Fill [281]

Ditch cut aligned north/south, width 0.65m, depth 0.50m, V-shaped, very steep sided to narrow pointed base. Base fill a fine grey clay silt with some fine sand and occasional charcoal fragments, redeposited natural orange/grey gritty clay at east within main orange-grey clay silt fill blending with subsoils above. Phasing: Roman.

Trench XIII

Only one feature was recorded in the length of Trench XIII, an east/west Roman ditch, F.152, with a V-shaped profile and narrow flat base. Its upper part was infilled by the alluvial clay layer [232].

F.152 Cut [269] Fill [268]

Ditch cut aligned east/west, flat-bottomed V-shape, width 0.60m, depth 0.35m. The fill was a moderately compact dirty brown clay silt mottled grey/orange, rare charcoal and occasional small gravel. Top infilled by alluvial clay layer [232]. Phasing: Roman.

Test Station 17

To the eastern side of Trench XI, within Test Station 17, was the continuation of ditch F.123. Similar in form and fills to other Roman ditches on the site it continued the approximate east/west alignment of the settlement area to the west..

F.123 Cut [287] Fill [286]

Ditch cut aligned east/west, width 0.80m, depth 0.55m, fairly steep sided to a flattish base. The fill was a friable mid grey silty clay with some Fe staining and very occasional charcoal flecks. Continuous ditch from Trench XII. Phasing: Probably Roman.

Test Station 20

To the east of Trench XIII and just to the south of the east/west ditch F.152, was a north/south ditch F.165, its form and fill were similar to those of F.152.

F.165 Cut [271] Fill [270]

Ditch cut aligned north/south, width 0.80m, depth 0.50m, fairly steep sided to a flattish base. The fill was a compact dirty brown clay silt with grey/orange mottling, rare charcoal and occasional gravel inclusions towards base. Top of ditch infilled by alluvial layer [232]. Phasing: Roman.

No archaeological features were recorded in Test Stations 12 or 16.

Discussion

The only attested prehistoric feature in the north-eastern area was the pit group F.91 in Trench V - and that can only be dated to the late Iron Age, perhaps as late as the middle of the first century AD. The only other pre-Roman finds in the area were not feature-related; Iron Age pottery from the buried soil in Trench X and the possibly Bronze Age loom-weight from the subsoil of Trench V. The loom-weight, if indeed from the Bronze Age, must either have been a curated piece within the Iron Age pit F.91 (it was located - admittedly in the machine bucket - c. 2.50m further south) or relate to an earlier feature in the immediate vicinity not picked up in the assessment trench.

However, of the remaining features across the area, half - 12 features - can only at present be assigned a very loose date as either Roman *or* prehistoric. It would be remarkable if none of these proved to be of prehistoric origin. In some respects scattered occupation activity; pit F.140; postholes F.134 and F.170; the possible beam slot F.145; are more likely to be prehistoric than they are Roman - separated as they are from the main focus of the Romano-British settlement and out in its 'fields'. The beam slot lies just to one side of the double ditch line of F.143/144 and all three features were sealed flat by the late- or post-Roman alluviation, indicating that they had infilled and were no longer visible in the landscape by that time. At just two metres wide (a little less when machine-truncation is taken into account) the double ditch would seem an unlikely track or droveway, and the outer, western ditch has either been extraordinarily crudely dug or, more likely, represents some form of palisade trench or fence line. While perhaps not directly related the butt-ending ditch to the east, F.148, by its pale leached fill and position in relation to the Roman field system, is almost certainly of prehistoric origin.

The features definitively attributed to the Romano-British period (predominantly ditches) have been done so by their alignments, profiles and fill types or by their relationship to the late or post-Roman alluvial

layer (where extant). Only one feature, posthole F.142, produced any dateable material. As is to be expected, outside the settlement area the principal Roman features are field ditches, their main alignments are either directly north/south or east/west, with two at the northern limit of the site following the east-northeast axis of the settlement features. Excavations directly to the east of the site in 1994 (Mortimer 1995) identified the eastern boundary of the settlement's immediate field system, with the unenclosed rough ground beyond it largely given over to gravel extraction (Figure 8). The system of small ditched fields west of the boundary ditch undoubtedly continues into the area of the current site, represented by the north/south and east/west ditches recorded in trenches XII and XIII and Test Station 20. All are of similar character and are partially infilled by alluvial clay. That system, or one similar to it, may possibly be seen as continuing as far west as Trench X with ditches F.135, F.136 and F.139. Ditches F.128 -131 at the east of Trench XI, if of Roman date, do not follow either of the main alignments - F.128 and F.129 are aligned with the double ditch F.143/144 to the south-southwest.

The postholes (from west) F.170, F.134, F.138 and F.142 form a rough alignment west/east over a distance of 150m. They become progressively deeper, from 0.10 - 0.40m. While probably representing isolated events across a wide timescale the possibility that they formed or marked some kind of boundary cannot at present be discounted - they follow (approximately) the contours of the field at about 4.80m AOD. (at the field surface).

The post-Medieval ditch F.141 bears a close correlation to proposed ditches/field boundaries shown on the Enclosure map of 1844, however, ditch F.129 at the eastern end of Trench XI cuts at 45° to any ditches shown on this map and could be either earlier - Medieval or Roman - or later in the post-Medieval - Modern period. Unfortunately no clearer date can as yet be given.

Southern Area

No archaeological features were recorded in either Trenches VI, VII, VIII and IX or Test Stations 5 - 7, 9 - 11, 13 - 15, 18 and 19.

Discussion

At the south and extreme south-east of the site no archaeological features were recorded despite the existence of faint cropmarks on aerial photographs. The area occupies the highest ground and all but the deeper archaeological features could well have been truncated by Medieval and post-Medieval ploughing. The ploughsoil [230]B and lower ploughsoil [231]A both have a high density of gravel incorporated within them suggesting heavy truncation of the natural subsoil. By contrast the soils which overlie the northern part of the site are characterised by the heavy alluvial clays which have sealed and protected the old land surface. This being said, both the dearth of archaeological features of any form, and the lack of finds material (other than that of the post-Medieval period) collected during fieldwalking, would suggest that very little visible activity had ever taken place across this southern area.

At the far east of the area, in Test Station 19, the surface of the natural gravel subsoil had been disturbed and the ploughsoil contained a high proportion of brick and iron rubble, perhaps evidence for the 'Travellers' encampment reportedly situated in the area in recent times.

Conclusions

The Western and Central Areas

The Romano-British settlement area has produced two features of significant archaeological importance even without which its complexity and longevity would merit considerable attention. The midden-like and artefact-rich 'black earth' deposit overlying the cropmarked features produced the distinctive and dense surface scatter which led to the initial recognition of the site. On evaluation, it effectively blankets the features below, masking the structural detail of possible building remains and those features which do not reveal themselves as surface depressions. It lies within the tops of the larger features which were open at the abandonment of the area and infills the ditch at the west of the roadway.

Present within the settlement area and its immediate vicinity there is an excellent combination of buried soil, midden material and complex Roman occupation largely protected by alluvial deposits. The state of preservation of the faunal and environmental material from the site is good and a detailed study following large scale excavation should reveal a great deal about the vegetation, arable crops and animal husbandry during the Roman period.

The amount of Roman pottery recovered thus far, from fieldwalking, spoil-heap collection and very limited excavation, totals nearly 2400 sherds. Any future excavation of the site would produce a significant pottery assemblage, the study of which would illuminate our knowledge of patterns of ceramic supply (and by implication broader aspects of economic activity) in the Roman period. Although some previous excavations at Whittlesey have produced significant pottery assemblages none of the pottery from these exercises has been published.

The precise dating of the Fen Causeway's construction is still uncertain. However, a late 1st century AD date is fairly secure and it is tempting to see the road as a response to the Boudiccan revolt of AD 60, linking the Icenic territories with the Roman military bases in the east Midlands. There are attested 1st century settlement sites all along the road, for instance at Eldernell, Flaggrass and Grandford - at the latter, the earliest levels of occupation date to c. AD 65 - 75 (Potter 1981).

The strong possibility remains that the roadway uncovered may describe the route of the Fen Causeway Roman Road and lead to the identification of both its fen-to-island landing and to the line of its eastward progress. The Roman Road would then lie within or just to one side of the settlement rather than further west towards the edge of the island as current theory has it. Whether the road represents an internal trackway within the settlement, the access road to the settlement from the Fen Causeway or the original route of the Causeway itself, cannot be definitively ascertained without further investigation.

Two further pieces of information lend weight to the possibility of the excavated road being the Fen Causeway itself; the last *known* location of the Fen Causeway to the north is as a cropmark at Masons Farm, Northey beyond the River Nene; a sighting of what may have been the truncated gravel agger of the Causeway was photographed on the bed of the Nene at the bend of the river near the Northey gravel works (Astbury 1970, Plate 57). The position of the excavated road in trench II, taken in conjunction with these two sightings, would form an almost straight line - the most direct route the road could have taken between Northey and the 'island' of Whittlesey.

That the Causeway where excavated to the west at Flag Fen was constructed on a gravel agger up to a metre deep may appear to be in stark contrast with the evidence for the road at Whittlesey - a single layer of gravel metalling laid directly onto the natural subsoil. However, in the deep fen the agger would be necessary to raise the road above the level of the waterlogged peat. On the (relatively) far higher ground of the island (c. 4 - 7m AOD) no such bank would be required and a simple level metalled road would suffice. One example of such a slight construction for a relatively major road is the principal Roman Road westwards through Devon and Cornwall. Where excavated at Sourton Down it was of a similar construction (a thin layer of gravel bedded into the natural subsoil). The road was not banked and had discontinuous roadside ditches, its width, where excavated, did not exceed six metres (M Knight *pers. comm.*). At Flaggrass, on the northern tip of the Island of March, a section of the Fen Causeway was excavated in 1960 (Potter 1981). Here, at a significantly lower level (2.00 - 2.50m AOD), the road only had a depth of 30 - 40cm (of compacted coarse gravels) and again there was evidence of a narrowing of the road width by the cutting of secondary, internal, ditches.

The East and South

The one attested Bronze Age artefact, the cylindrical loom-weight, may either have been curated during the later Iron Age or ploughed out from within an earlier, Bronze Age, feature in the immediate vicinity. Either way the find attests to the Bronze Age occupation of the area. Excavations at Fengate and Flag Fen to the north have revealed an extensive prehistoric landscape incorporating both settlement and ritual/defensive features, the landscape was first laid out in the later Neolithic period and remained in use for some 1500 years until the early 1st Millennium BC. Situated as it is on the southern edge of the Flag Fen embayment it would be surprising if there were no earlier prehistoric occupation on the Whittlesey site.

Future Research Directives

The Central Area

Suitably extensive excavation and recording of the settlement area and its immediate surrounds will be necessary in advance of its destruction. The settlement's longevity and seeming complexity alone would merit thorough investigation. However, the site's greatest potential lies in the combination of stratigraphic, environmental and artefactual evidence. The excellent preservation of both environmental and faunal remains will aid the establishment of economic/land-use patterns for Fen-edge settlements throughout the Romano-British period. Similarly, an extensive pottery assemblage, from excavated and therefore phaseable and dateable features (as opposed to the spoil-heap and surface collections gathered thus far), would be of considerable value in illustrating patterns of ceramic supply and as a corollary, the wider economic and trading activities represented.

The identification of the cross-Island route of the Fen Causeway has to be considered one of the principal objectives of any further excavations. A more secure dating of both the road's (and by implication the settlement's) initial construction (and perhaps more significantly its abandonment) could also be expected and has ramifications for the Roman occupation and abandonment of the entire Fenland area.

The North-eastern Area

Further limited excavation on this part of the site ahead of quarrying would be required to facilitate a greater understanding of prehistoric activity in the area. While attested to by both features and artefacts the pattern of occupation still remains ambiguous - with neither relative dating nor outline form as yet attributed to the features to define their function and extent.

The possible existence of Bronze Age or Iron Age field systems (and within them a limited amount of settlement activity), should not be dismissed as many of the ditches recorded to the north and east have as yet no secure provenance. The one attested Iron Age feature is perhaps unlikely to stand alone on such an extensive and desirable habitat and further excavation would be required to assess its immediate vicinity.

The Western and Southern Areas

Beyond ascertaining the route of the road recorded in the settlement area it is not thought that much further excavation would be necessary across the western and southern parts of the site. If its interpretation as the Fen Causeway is correct, the road's ditches, whether continuous or interrupted, should survive across the southern area. Its surface, however, would undoubtedly have been plough-truncated.

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APPENDICES

1) Aerial Photographic Assessment R Palmer

INTRODUCTION

Photographic interpretation was undertaken and mapping produced at 1:2500 to cover three separate areas of future quarrying. Area A (TL243980) included the Roman scatter, Whittlesey 14, located during walking for the Fenland Survey (Hall 1987, figure 40) that coincided with a small spread of 'cropmarks' indicated on the county Sites and Monuments Record. Area A is bounded on its south side by the course of the Fen Causeway Roman road. Area B (TL255979) is cut by the Fen Causeway but had no known archaeological content. Area B was not covered by field walking for the Fenland Survey (*Ibid*, figure 37). Most of Area C (TL247968) was walked but was archaeologically blank. However it may offer potential interest due to the possible inclusion of the palaeochannel of the river Nene crossing through it (*Ibid*, figure 38). Hall's work showed that all three areas lay on, or close to, the Roman fen edge (*Ibid*, figure 40) and therefore all offered the potential of waterlogged archaeological deposits.

The 1:2500 plans that accompany this report show, where possible, natural features as well as those of archaeological origin.

PHOTO INTERPRETATION AND MAPPING

Photographs examined for this assessment came from the Cambridge University Collection of Aerial Photographs and the vertical collection of the National Library of Aerial Photographs (NLAP). The cover search acquired from NLAP included a listing of oblique photographs but none of the given six-figure NGRs matched those of the assessment areas and so these were not examined. All photographs examined are listed in the Appendix to this report.

I overflew and specifically examined the three areas on 26 April 1994 as part of a reconnaissance flight over the Fenland. Nothing of archaeological potential was visible in any of the areas and no photographs were taken.

Interpretation and mapping was carried out following procedures described by Palmer and Cox (1993) and all rectification was carried out using AERIAL 4.2 software (Haigh 1993). Vertical prints were examined stereoscopically at 1.5x magnification. Problems were encountered in the establishment of satisfactory control points due to the date differences between the maps available and the most informative photographs. These were overcome by using primary control combined from 1:2500 and 1:10560 maps and creating secondary control points as appropriate (Area A only).

The 1:2500 plan of Area A is combined from three photographs. Most of the detail came from stereoscopic interpretation of 1951 verticals which held a good record of the features as earthwork ditches. Mean control point match error for the verticals was just below $\pm 2.0\text{m}$ while that for the oblique print approached $\pm 3.0\text{m}$. Additions from the oblique were minor and could be

fitted to the framework established from verticals. Information for Area B comes from one photograph only and has been rectified with mean control point match error of less than $\pm 2.0\text{m}$. Area C combines possible archaeological information with environmental features. The latter were apparent on several prints (albeit in slightly varying positions – perhaps to be expected over a thirty-year period) with the most informative being those taken by the Ordnance Survey in 1967 which showed excellent stereoscopic resolution. The mean error of control point matching for Area C was less than $\pm 2.0\text{m}$.

COMMENTARY

Area A (TL243980)

Features in this area were recorded as earthworks between 1946 and 1960. By 1967 they had been ploughed and showed as light-edged soil-marked features, possibly still retaining a slight degree of height. Since 1960 the area has undergone several alterations to its field layout – the earlier arrangement has been used to illustrate the land use (below) – culminating in the recent cutting of an east-west drain and, to its north and parallel, an embanked track. The drain marks the northern limit of the area to be quarried but the aerial photographic assessment shows the archaeological features to Moreton's Leam.

The Roman scatter located during the Fenland Survey at TL24129805 (Whittlesey 14) covered an area of some 0.8ha (ie approximately 100m diameter) and was partly buried by alluvium. [No evidence of regular alluvial spread is apparent on the photographs examined although there are irregular patches of 'deep soil' on the obliques, one of which would corroborate the field evidence. For reasons of clarity this has been drawn on a separate overlay.] The area of the Roman scatter includes several features mapped from aerial photographs which, on the basis of their size and form, would be suggested as likely 'domestic' enclosures. Others lie beyond the extent of the scatter and potential for locating other nodes of occupation would appear to be high.

The features mapped reflect those of other Fen edge settlements, being a spread of mixed domestic enclosures usually within slightly larger ditched areas (?paddocks), with small fields, linear boundaries and droves all tending to be aligned as the local topography dictated. All features mapped represent ditches as no discernible banks could be identified through stereoscopic examination of the prints. The 1:2500 plan is largely a record of earthworks identified on vertical aerial photographs. It is probable that slight features (hut gullies, for example) would not be detected in this form and considerably more detail may be expected during field examination. The eastern part of Area A was less clear on the photographs. Slight earthworks have been interpreted, many following the alignments of the more definite features and an extension of the site would seem probable. Features mapped in the south-east part of the area are, however, considerably more suspect as archaeological. These may be masked by the overlying ridge and furrow. Whatever the reason, the photographs were much less clear in this area and the mapped 'features' should be approached with caution.

Immediately north of Area A, at TL23929822, is a small rectangular enclosure with a linear ditch continuing to its north. This enclosure is the eastern known limit of a regular axial field block (Fenland Survey: Whittlesey 1) which extends for at least 600m to the west. The western part

remains as earthworks. [These features were mapped at 1:2500 for the Fenland Evaluation Project but do not appear in the published survey report (Hall 1987). Figure 2 in this report is a copy of the 1:2500 plan prepared for the Fenland Evaluation Project: included here with permission.] Visually there is little similarity of form or alignment between the features in Area A and those mapped to the north and a difference in their dates would seem likely. The finds from Whittlesey 14 were Roman (2nd to 4th century) although these do not necessarily date all of the mapped features, the earthworks of Whittlesey 1 are *suggested* to be of Roman date (Hall 1987, Gazetteer).

Area A

- 1 Recorded under pasture up to, and including, 1960, ploughed subsequently with considerable loss to the clarity of definition of archaeological features. Major features will have been recorded in earthwork condition but the fine definition which is sometimes visible in crop-marked form has never been photographed. Crop marks of some ditches were recorded on oblique photographs in 1971 but at a time when the field was under beet, or a similar less sensitive crop. However, even this coarsely responsive crop added some detail to the record made of earthworks. Some masking by ridge and furrow may be expected in the western parts of this field. The boundaries between fields 1, 2 and 3 have now been removed but an east-west drain and raised track now lie parallel to, and south of, Moreton's Leam.
- 2 Recorded under arable conditions in nine years and twice under ?pasture but never showing well defined features. Those features mapped at 1:2500 show continuity from the earthworks and hint at the archaeological potential in that field.
- 3 Recorded under arable conditions in six years and twice under pasture, this field has never shown clearly. The 1:2500 plan shows possible but dubious archaeological features. Ridge and furrow may also contribute to the masking of earlier features in this field.

2) Soil assessment CAI French

Observations

Examination of the open assessment trenches of the second evaluation area in advance of clay extraction at Whittlesey brick pits revealed an extensive area of much better preservation of soils and sediments.

There is alluvial cover over about half of the site. The dark brown, silty clay alluvium is situated in the northern half of the evaluation area beneath about the 5.00m OD contour. Ostensibly, the alluvium acts as the present day ploughsoil and varies in thickness from about 30-50cm. In addition, undisturbed alluvium consisting of a mid-brown silty clay with a well developed blocky ped structure is found 'captured' within the archaeological features, mainly as tertiary fills of ditches of the Roman period.

A well preserved buried soil defines beneath the alluvial ploughsoil in the majority of the trenches, except in the highest southern and western parts of the evaluation area. Typically, it is visible as a single horizon of yellowish to greyish brown sandy/silt loam, with an occasional to common gravel component, varying in thickness from about 15-35cm. It exhibits greater and lesser degrees of oxidation and reduction mottling, which is a common feature of soils developed on gravel subsoils which are subject to variable ground- and soil-water conditions. For example, it is very well preserved in Trenches II, III and IV. It was sampled in two locations (context 233/Profile 2; and context 231D/Profile 3) for micromorphological analysis.

Of particular importance is the presence of an area of probable midden material associated with evidence of occupation during the Roman period in Trenches II and IV. This zone of midden material is well defined over a c 25 sq m area, and is present both as fills in cut features as well as on and incorporated within the buried soil. It stands out as a 'rich', black 'loam', full of comminuted organic matter and charcoal, as well as artefacts. It was sampled for micromorphological analysis in one location (context 338/Profile 1), as well as within the associated buried soil profile (context 233/Profile 2).

Potential

The extensive preservation of a buried soil within the evaluation area is remarkable in comparison to the first assessment and excavation area examined in 1994 as part of the same programme of archaeological investigation. The process of seasonal alluviation had begun to bury the Roman and earlier, prehistoric landscape not long after the Roman features on the site ceased to be maintained, thereby providing a degree of protection for the old land surface from later agricultural activities.

In addition, middens associated with Roman rural sites are not an every day occurrence in the archaeological record. In fact, the only somewhat similar site that I am aware of in the county is the area of blackened, artefact-rich ploughsoil associated with the Romano-British farmstead site of Haddon Lodge Farm (French 1994, see fig 36). But, the midden area in Trenches II and IV at Whittlesey is much better preserved and much less affected by recent agricultural disturbance.

Thus, present within Trenches II and IV and the immediate vicinity there is an excellent combination of buried soil, midden and Roman occupation site protected by alluvial deposits. Therefore, this site complex deserves thorough recording in advance of destruction for its combination of stratigraphic, artefactual, economic and land-use evidence.

3) The Plant Remains C Stevens

A total of four samples from the excavation were floated and assessed for plant macros. Three of these came from ditches F.86 [289d], F.168 [300], F.169 [328], whilst the third was a rich loamy soil, which was possibly derived from midden material F.179 [372]. The samples were all Roman in date.

Methodology

The samples were floated using a 1 mm mesh to collect the residue and a 5 mm mesh size to collect the flot. The flots were then dried and sorted using a stereo-binocular microscope at x 10 magnification. The seeds from three of the contexts were counted and identified where possible, the fourth from a ditch to the east? of the site, F.169 [328], owing to the amount of material was scanned for various components which were given the following scales of abundance. The results are tabulated in Table 1.

- +++ Highly Abundant
- ++ Moderately Abundant
- + Fairly Abundant

Results

Charred plant remains were fairly abundant in most of the samples, especially the sample from F.169 [328], a ditch fill over-lain with alluvium, where the total number of plant remains extracted probably exceeded 2000 items. Preservation was generally very high due to the favourable soil conditions.

The range of species extracted was highly diverse. Seeds of free-threshing wheats, *Triticum aestivo-compactum*, glume wheats, possibly both spelt and emmer, *T. spelta* and *T. diccicum*, hulled barley, *Hordeum sp.* rye, *Secale cereale*, Celtic bean, *Vicia faba*, and Field Pea, *Pisium sativum* were all recovered from the samples. In addition it may be possible to identify if the seeds of oats, *Avena sp.*, are wild or cultivated if fragments of floret bases are present in sample F.169 [328], although none were spotted during the assessment. Seeds of Turnip, *Brassica rapa*., from the same sample may similarly come from cultivated plants, but could equally have been growing as weeds within the arable fields. Fragments of parenchyma (charred roots and tubers) were also frequent within the samples, especially sample F.179 [372], where several larger pieces (0.5 to 1 cm²) were recovered.

In addition seeds of several wild species were also recovered from the samples. In the case of many such as corncockle, *Agrostemma githago*, cleavers, *Galium aparine*, scentless mayweed, *Tripleurospermum*

inodorum, curled dock, *Rumex crispus*, sheep's sorrel, *Rumex acetosella*, chickweed, *Stellaria media*, red bartisia, *Odontites verna*, oats, *Avena* sp., brome grass, *Bromus* sp., knot grass, *Polygonum aviculare*, oranche, *Atriplex* sp., fat hen, *Chenopodium album*, bindweed, *Fallopia convolvulus*, white charlock, *Raphanus raphanistrum*, turnip, *Brassica rapa*, and vetch *Vicia/Lathyrus* sp. are likely to have come in as weeds of the crop. Others may also have come in as crop weeds, but are also common in grasslands such as meadow grass, *Poa* sp., clover, *Trifolium* sp., Meddick/Lucerne, *Medicago* sp., dock, *Rumex* sp., plantain, *Plantago lanceolata*. Whilst others such as spikeweed, *Eleocharis* sp., sedge, *Carex* sp., and greater sedge, *Cladium maritimus*. are common seeds of wetlands, but at least in the case of the former two are also possible weeds of past arable fields.

Interpretation

The samples probably all represent processing waste, although the sample from F.169 could be derived from whole unprocessed semi-cleaned spikelets and would require further quantification to establish.

The samples from F.86, F.168 and F.179, were highly similar in that all contained several wetland and grassland species. The sample from F.169 also contained some wetland species, *Carex* sp., but otherwise contained a fairly typical arable flora, with some indications of acidity indicated by the presence of the seed capsule of white charlock. The sample came from a ditch fill adjacent to a possible platform and structure. Given the high density of cereal remains in the deposit, it is possible that the area was used for grain processing.

Samples from F.86 and F.179 are later than the sample from F.169. Given its similarity to the former samples F.168 is quite possibly of a similar date. The higher proportion of wetland species within the later samples are in keeping with the increasing wetness seen on the site and surrounding area cumulating in the alluviation which completely seals the fill [328] in F.169. The higher proportions of grassland species seen within these deposits, combined with the presence of plantain, a species of more calcareous soils, suggests that some shifting of fields onto pasture land may have occurred, possibly in an attempt to counter increased flooding. Some of these samples also contain seeds of greater sedge, a wetland species commonly used for thatch in the medieval period. It is also possible that the species encroached into the crops and so was collected with the harvest.

The latest sample from the site comes from a soil possibly derived from midden material. The fairly high amounts of wood charcoal, food and crop processing waste within this soil would support this, and it is possible that the dumping of domestic waste upon this area may have served to combat the increasing wetness. The sample also contains both seeds of plantain and white charlock, two species unlikely to have been growing in

the same fields, indicating an exploitation of a wide range of soils during the formation of the deposit.

Table 1. Quantified results

Soil sample	24	25	26	29
Context	289d	300	328	327
Feature	F.86	F.168	F.169	F.179
Volume (litres)	12	12	12	18
Species				
Chenopodium album		1		2
Atriplex sp.		5	++	2
Agrostemma githago		1		
Stellaria media				1
Polygonum sp.	2	2		
Polygonum aviculare	1	1	+	
Fallopia convolvulus		5		1
Rumex acetosella		1		
Rumex cf. crispus	2	3	++	
Rumex cf. cong/obtus/sang				2
Malva sp.	1	1		
Brassica rapa			+	
Raphanus raphanistrum			1	1
Vicia/Lathyrus sp.	6	14	++	3
Vicia faba		1		
Pisium sativum		2		

continued

Soil sample	24	25	26	29
Context	289d	300	328	327
Feature	F.86	F.168	F.169	F.179
Volume (litres)	12	12	12	18
Species				
Medicago sp.		2		1
Trifolium (small <1.5 mm)	2	5		2
Trifolium (large <1.5 mm)		1		1
Mercurialis annua				1
Plantago lanceolata	1	2		1
Odontites verna		1		1
Odontites/Euphrasia sp.	1			
Galium aparine			++	
Galium sp. (small)		1		1
Asteraceae (undiff.)				1
Tripleurospermum inodorum		3		5
Cladium maritimus	3	2		
Eleocharis palustris		3		7
Carex trig		1	+	1
Carex flat.		2		
cf. Poa sp.	1			
Avena sp.	2	8	+++	
Avena sp./Bromus sp.		4		
Bromus sp.	1	1		
Seed indet (<2.5mm)	4	5		3
Seed indet (>2.5mm)		4		
Cereals				
Hordeum sp. (hulled)		2	+	
Hordeum sp. (rachis fragments)			1	
Secale cereale (grains)			1	
Triticum undiff. (grains)		21		3
T. diccocus/spelta (spiklet forks)	1	1	++	
T. diccocus/spelta (grains)		8	+++	4
T. diccocus/spelta (glume bases)	24	67	+++	
cf. T. diccocus (glume bases)	1			2
T. spelta (glume bases)	1	22	+	
T. aestivo-compactum		1		1
Cereals undiff. (grains)	2	3		2
Cereal (undiff.) basal rachis		1		
Cereals undiff. (basal culm nodes)		1		
Cereals undiff. (culm nodes)		3	++	1
Culm internode				3
Parenchyma		2		10
bud (indet.)	1			

4) Pollen Analysis R Scaife

Introduction

Pollen sub-samples have been taken and analysed from the palaeosol (context [289]) and overlying midden material ([288]). It was considered that these features had the potential for pollen preservation and thus, reconstruction of the local palaeoenvironment, vegetation and possible aspects of cultivation. Data from such analysis could contribute the studies undertaken on the plant macrofossils by P. Murphy. These aspects are itemised as follows:

- a) To ascertain if pollen and spores are present and if so, their state of preservation.
- b) To provide preliminary information on the pollen taxonomic content.
- c) If present, what pollen indications of human activity could be seen in these spot samples.
- d) What is the potential of the site for reconstructing the local and regional vegetation and environmental history.
- e) Does the site offer potential for more detailed and valid work in the future.

Consequently, monolith sections were taken from the exposed archaeological section No. 108 embracing the buried soil profile [289] and overlying the midden sequence [288]. A total of four sub samples from these monoliths have been examined for sub-fossil pollen and spores and the data accruing from this work is presented in this assessment report.

Methodology

Extraction procedures followed those outlined in Moore *et al.* 1991. Because the sediments were largely inorganic, micro-mesh sieving (10 μ) for removal of the clay fraction was undertaken. Samples were deflocculated with 8% KOH. Coarse debris was removed through sieving at 150 μ and clay by micromesh (10 μ). Remaining silica was digested with 40% hydrofluoric acid. Erdtmans acetolysis was carried out for removal of cellulose. The concentrated pollen and spores were stained with safranin and mounted in glycerol jelly. Pollen was identified and counted with an Olympus biological research microscope with phase contrast facility at magnifications of x400 and x1000. These extraction techniques were successful and a preliminary pollen diagram (see figure) has been constructed using Tilia and Tilia Graph in the Quaternary Environmental Change Research Centre of the Dept. of Geography, University of

Southampton. Pollen is calculated as a percentage of total pollen and spores as a percentage of total pollen plus spores. Taxonomy follows that of Stace (1991) and Moore *et al.* (1991).

Results of analysis.

The four pollen spot samples span the palaeosol sub-soil and upper horizon and the midden deposits which effectively seal the buried soil. The two stratigraphical divisions are characterised and discussed:

The Buried soil

Absolute numbers of pollen grains in the lower levels of the buried soil (sub-soil) are lower than in subsequent levels and are also accompanied by larger numbers of degraded pollen grains. Lactucoideae (Asteraceae) and fern spores are typical of differential preservation of pollen taxa which have thicker and more robust exines (pollen walls). These are frequently found to be more abundant in the lower levels of such soils and are strong indications that the pollen spectra are skewed in favour of these types (Dimbleby 1985). This is the case here, and the basal level is dominated by Lactucoideae (dandelion types) to 58% of total pollen thus indicating that such differential preservation is likely to have occurred. Also present are Poaceae with small numbers of *Quercus* (oak), *Corylus avellana* type (daisy family) and Cyperaceae (sedges). At the top of the buried soil (the old land surface?) Lactucoideae and Poaceae are less abundant (30% and 10% respectively). Conversely, Cyperaceae values increase markedly to 50% of total pollen. Spores of ferns including monolete *Dryopteris* type and *Pteridium aquilinum* (bracken) are similarly more abundant in the lowest level because of their better preservation in poor conditions.

Pollen preservation at the top of the soil is better than the sub-soil and there is, therefore, a better representation of the flora which was present immediately prior to burial by midden accumulation. Pollen grains with thinner exines such as Cyperaceae are preserved. From the pollen spectra, it appears that there were few trees in the immediate local area. Small numbers of pollen of *Pinus* (pine), *Quercus* (oak) and *Corylus avellana* type are likely to be from regional growth. The preponderance of Cyperaceae is from the on-site dominance sedges and it is suggested that the local habitat was a wet hollow. Sporadic *Sphagnum* (bog moss) spores similarly attest to this although the location of this site on the edges of the Fens also suggests that at least some of the wetland pollen taxa may derive from mire communities farther afield. Non-wetland plants include small numbers of cereal pollen and associated weeds, e.g. *Polygonum aviculare*.

The midden deposits.

The two levels of the midden are dominated by Cyperaceae (sedges) with higher values than in the underling soil profile (36 - 70% of total pollen). However, the uppermost level shows a marked expansion of Poaceae and small increases in other herb types (cereals, *Plantago lanceolata*, Apiaceae and spores of ferns. With the limited number of samples and preliminary pollen counts made, it is not possible to ascertain with any certainty if the 'midden' deposit was a rapid dump or accrued through a longer time span. Furthermore, there is no clear evidence from the pollen that we are dealing with a true midden deposit of domestic refuse. The higher percentage values of Cyperaceae suggest that the sample site remained wet and that perhaps there was a greater build-up of organic material under more anaerobic conditions. As with the underlying palaeosol, the absence of local trees and shrubs is noted but with some evidence of cereals and possibly pasture present. It is possible that midden material was disposed of in a more marshy, lower-lying zone.

Conclusions and suggestions for additional analysis

Pollen has been successfully extracted from these two archaeological contexts. Both the buried soil profile and the overlying midden illustrate an open environment with few trees growing in the local area during the period of occupation/archaeological activity. The site sampled appears to have been a rather wet habitat supporting grass and sedge vegetation. There is, however, some evidence for local cereal cultivation and possibly pastoral activity. However, the pollen catchment from such a soil profile represents to a large extent only the very local flora and as such these suggestions must remain tentative without more detailed analysis.

From the above discussion it is apparent that pollen preservation is poor in the lower levels of the soil profile but becomes better upwards to the old land surface. This is normal and in such situations, closer sampling (e.g. 2cm contiguous intervals) in the upper level of such a buried soil can produce valuable information on the local vegetation/habitats prior to burial. Consequently, it is suggested that if further work is carried out on this sequence, contiguous sampling of the upper soil profile but broader sampling (e.g. 4 or 8cm) at lower levels be carried out.

The midden sequence has also yielded sub-fossil pollen. Further information on this feature would be forthcoming if additional pollen samples were examined from throughout the profile and if standard and statistically significant rather than assessment counts were made. This might be done at a sampling interval of 4 or 8cm.

5) Faunal Remains M Levine

The sample of animal bones and teeth obtained from King's Dyke Pit, Whittlesey, is very small. In total 367 anatomical elements were recovered, of which 95 (or 25.9%) were identifiable to species. Most of the material came from Roman contexts (343 elements, of which 88, or 25.7%, were species identifiable). Details relevant to this assessment are included in the enclosed tables.

The preservation state of the material from this site is very good. On the one hand, a relatively high proportion of the bone is identifiable. On the other, the condition of the bone surfaces is generally very good. This means that analyses of population structure, palaeopathology and butchery could be carried out and that a relatively high proportion of the material will be measurable. A rather small number of bones have fresh breaks.

Taxa recovered include, cattle (*Bos taurus*), sheep/goat (*Ovis aries* and *Ovis/Capra*), pig (*Sus scrofa*), horse (*Equus caballus*), dog (or possibly wolf) (*Canis familiaris* or *Canis lupus*), red deer antler (worked) (*Cervus elaphus*), roe deer antler (*Capreolus capreolus*), and bird. Over 50% of the elements are from cattle.

Because of the good preservation state of the material from King's Dyke Pit, a detailed study of the fauna should reveal a great deal about animal husbandry carried out at this site during the Roman period. As regards the fauna, a large scale excavation of this site would be valuable and is highly recommended.

Assessment of Fauna from King's Dyke Pit, Whittlesey: Roman Features

Cat. No.	Location	No.	Taxon	Material	No. ident. fragments	Notes
761	Tr. XIV F.80	1	Unidentifiable	Bone	0	
762	Tr.XIV F.83	6	<i>Bos taurus</i>	Bone	3	Horncore
			Unidentifiable	Bone	0	
763	Tr. IV F.85	9	<i>Ovis/Capra</i>	Tooth	1	
			Unidentifiable	Bone	0	2 burned
764	Tr. Iv F.86	3	<i>Ovis/Capra</i>	Bone	1	
			Unidentifiable	Bone	0	
765	Tr.IV F.87	5	<i>Bos taurus</i>	Bone	3	1 positive id.
			Unidentifiable	Bone	0	
766	Tr. II F.94 & F.95	2	Bird	Bone	1	
			Unidentifiable	Bone	0	
767	Tr. II F.98	7	<i>Ovis/Capra</i>	Bone	1	
			<i>Sus scrofa</i>	Tooth	1	
			Unidentifiable	Bone	0	1 with fresh break

Continued

768	F.98 E. of Tr. IV	4	Unidentifiable	Bone	0	
769	Tr. II F.98 & F.102	2	Bos taurus	Bone	1	
			Unidentifiable	Bone	0	
770	Tr. II F.102	1	Unidentifiable	Bone	0	
771	F.107	1	Unidentifiable	Bone	0	Burned
772	Tr. II F.109	3	Unidentifiable	Bone	0	
773	Tr. II F.110	4	Unidentifiable	Bone	0	
774	Tr. II F.109	5	Sus scrofa	Bone	1	
			Unidentifiable	Bone	0	
777	Tr. III F.75	3	Bos taurus	Tooth	2	Fresh break (one tooth broken in two)
			Unidentifiable	Bone	0	Blackened
778	Tr. III F.75	2	Bos taurus	Tooth	1	
			Unidentifiable	Bone	0	
779	F.121	55	Bos taurus	Tooth	3	
			Bos taurus	Bone	2	
			Ovis/Capra	Tooth	1	
			Unidentifiable	Bone	0	
780	F.86	4	Ovis/Capra	Bone	2	
			Unidentifiable	Bone	0	
781	Tr. III F.75	1	Unidentifiable	Bone	0	
782	F.86	2	Bos taurus	Bone	1	Horncore
			Unidentifiable	Bone	0	
783	F.86	12	Sus scrofa	Tooth	4	Probably all same jaw
			Unidentifiable	Bone	0	
784	F.84	8	Bos taurus	Tooth	1	
			Unidentifiable	Bone	0	5 with fresh breaks
785	F.94	4	Unidentifiable	Bone	0	
786	F.94/168	71	Bird	Bone	4	
			Bos taurus	Bone	7	
			Bos taurus	Tooth	7	
			Capreolus capreolus	Antler	1	
			Ovis aries	Bone	1	
			Unidentifiable	Bone	0	Probably much of this comes from the Bos jaw
787	F.168	1	Unidentifiable	Bone	0	
790	F.94	2	Unidentifiable	Bone	0	Both with fresh breaks
791	F.117	12	Unidentifiable	Bone	0	
792	F.86	25	Bos taurus	Bone	1	
			Ovis/Capra	Bone	1	
			Unidentifiable	Bone	0	
793	F. 86	9	Ovis/Capra	Bone	3	
			Unidentifiable	Bone	0	
794		3	Ovis/Capra	Bone	1	

Continued

			Ovis/Capra	Tooth	1	
			Unidentifiable	Bone	0	
795	F.86	3	Ovis/Capra	Bone	1	
			Unidentifiable	Bone?	0	
			Unidentifiable	Bone	0	
796	F.92	3	Unidentifiable	Bone	0	
798	F.87	3	Bos taurus	Bone	1	
			Ovis/Capra	Bone	1	
			Unidentifiable	Bone	0	
799	Tr. X F.136	1	Bos taurus	Tooth	1	
800	Tr. II F.96	37	Bos taurus	Bone	10	7 with fresh breaks
			Bos taurus	Tooth	2	
			Ovis/Capra	Tooth	1	
			Unidentifiable	Bone	0	
801	F.96	4	Equus caballus	Bone	1	Tibia shaft and distal end
			Unidentifiable	Bone	0	
802	F.171	8	Ovis aries	Bone	2	One bone freshly broken
			Unidentifiable	Bone	0	
804	Tr. II F.96	16	Bos taurus	Bone	7	Including scapula with fresh breaks
			Cervus elaphus	Antler	4	Worked antler - with fresh breaks
			Unidentifiable	Bone	0	
Total		343			88	
%					25.7%	

Assessment of Fauna from King's Dyke Pit, Whittlesey:
Taxa List for Roman Features

Taxon	Teeth or Bone	Identifiable fragments	Taxon Percentage
Bird	Bone	5	5.7%
Bos taurus	Bone	51	58.0%
Bos taurus (probably)	Bone	2	2.3%
Capreolus capreolus	Antler	1	1.1%
Cervus elaphus	Antler	4	4.5%
Equus caballus	Bone	1	1.1%
Ovis aries	Bone	3	3.4%
Ovis/Capra	Tooth	15	17.0%
Sus scrofa	Tooth	6	6.8%
Unidentifiable	Bone	0	0.0%
Taxon Total		88	

Assessment of Fauna from King's Dyke Pit, Whittlesey: All Features

Catalogue Number	Location	No.	Taxon	Material	No. of ident. fragments	Notes
761	Tr. XIV F.80	1	Unidentifiable	Bone	0	
762	Tr.XIV F.83	6	Bos taurus	Bone	3	Horncore
			Unidentifiable	Bone	0	
763	Tr. IV F.85	9	Ovis/Capra	Tooth	1	
			Unidentifiable	Bone	0	2 burned
764	Tr. Iv F.86	3	Ovis/Capra	Bone	1	
			Unidentifiable	Bone	0	
765	Tr.IV F.87	5	Bos taurus	Bone	3	1 positive id.
			Unidentifiable	Bone	0	
766	Tr. II F.94 & F.95	2	Bird	Bone	1	
			Unidentifiable	Bone	0	
767	Tr. II F.98	7	Ovis/Capra	Bone	1	
			Sus scrofa	Tooth	1	
			Unidentifiable	Bone	0	1 with fresh break
768	F.98 E. of Tr. IV	4	Unidentifiable	Bone	0	
769	Tr. II F.98 & F.102	2	Bos taurus	Bone	1	
			Unidentifiable	Bone	0	
770	Tr. II F.102	1	Unidentifiable	Bone	0	
771	F.107	1	Unidentifiable	Bone	0	Burned
772	Tr. II F.109	3	Unidentifiable	Bone	0	
773	Tr. II F.110	4	Unidentifiable	Bone	0	
774	Tr. II F.109	5	Sus scrofa	Bone	1	
			Unidentifiable	Bone	0	
775	F.58	3	Equus caballus	Tooth	1	
			Unidentifiable	Bone	0	
776	Tr. VIII F.162	1	Canis familiaris or lupus	Bone	1	
777	Tr. III F.75	3	Bos taurus	Tooth	2	Fresh break
			Unidentifiable	Bone	0	Blackened
778	Tr. III F.75	2	Bos taurus	Tooth	1	
			Unidentifiable	Bone	0	

Continued

779	F.121	55	Bos taurus	Tooth	3	
			Bos taurus	Bone	2	Petrous bones.
			Ovis/Capra	Tooth	1	
			Unidentifiable	Bone	0	
780	F.86	4	Ovis/Capra	Bone	2	
			Unidentifiable	Bone	0	
781	Tr. III F.75	1	Unidentifiable	Bone	0	
782	F.86	2	Bos taurus	Bone	1	Horncore
			Unidentifiable	Bone	0	
783	F.86	12	Sus scrofa	Tooth	4	Probably all from same jaw
			Unidentifiable	Bone	0	
784	F.84	8	Bos taurus	Tooth	1	
			Unidentifiable	Bone	0	5 with fresh breaks
785	F.94	4	Unidentifiable	Bone	0	
786	F.94/168	71	Bird	Bone	4	
			Bos taurus	Tooth	7	
			Bos taurus	Bone	7	
			Capreolus capreolus	Antler	1	
			Ovis aries	Bone	1	
			Unidentifiable	Bone	0	Much of this comes from the Bos jaw
787	F.168	1	Unidentifiable	Bone	0	
788		3	Bos taurus	Bone	1	
			Unidentifiable	Bone	0	
789		4	Bos taurus	Bone	1	
			Unidentifiable	Bone	0	
790	F.94	2	Unidentifiable	Bone	0	Both with fresh breaks
791	F.117	12	Unidentifiable	Bone	0	
792	F.86	25	Bos taurus	Bone	1	
			Ovis/Capra	Bone	1	
			Unidentifiable	Bone	0	
793	F.86	9	Ovis/Capra	Bone	3	
			Unidentifiable	Bone	0	
794		3	Ovis/Capra	Tooth	1	
			Ovis/Capra	Bone	1	
			Unidentifiable	Bone	0	

Continued

795	F.86	3	Ovis/Capra	Bone	1	
			Unidentifiable	Bone?	0	
			Unidentifiable	Bone	0	
796	F.92	3	Unidentifiable	Bone	0	
797	Tr. X F.138	2	Unidentifiable	Bone	0	1 burned
798	F.87	3	Bos taurus	Bone	1	
			Ovis/Capra	Bone	1	
			Unidentifiable	Bone	0	
799	Tr. X F.136	1	Bos taurus	Tooth	1	
800	Tr. II F.96	37	Bos taurus	Tooth	2	
			Bos taurus	Bone	10	7 with fresh breaks
			Ovis/Capra	Tooth	1	
			Unidentifiable	Bone	0	
801	F.96	4	Equus caballus	Bone	1	Tibia shaft and distal end
			Unidentifiable	Bone	0	
802	F.171	8	Ovis aries	Bone	2	One bone, fresh 1 break
			Unidentifiable	Bone	0	
803	Tr. XI F.129	11	Bos taurus	Bone	2	
			Unidentifiable	Bone	0	3 with new breaks
804	Tr. II F.96	16	Bos taurus	Bone	7	Including scapula with fresh breaks
			Cervus elaphus	Antler	4	Worked antler - with fresh breaks
			Unidentifiable	Bone	0	
805	Tr. XII F.140	1	Bos taurus	Bone	1	
Totals:		367			95	
Percentage					25.9%	

6) Roman Coins A Challands

Small Find No. 6: Trench II; Feature 96; Context [360].

Æ Sestertius

Whilst this coin is corroded, very worn and illegible, sestertii commonly circulated in Britain during the mid 1st and 2nd centuries AD. Generally the circulation rapidly decreased after the end of the 2nd century. Production of sestertii completely ceased around AD 260.

Condition - The wear on this coin is excessive and it would have been in circulation for a considerable time - as such it is of little use for precise dating.

Small find No. 7: Trench II; Machine spoil.

Æ 3 18mm diameter Constantinian Commemorative Issue.

Obverse - C [ONSTAN] TINOPOLIS
Helmeted and cuirassed bust holding sceptre, looking left.

Reverse - No Legend
Constantinopolis standing left on prow, holding transverse spear with left hand resting on shield.

Mint Mark - [TR] .S
Minted between AD 330 - 335

Condition - No circulation wear, but corroded.

No. 66 in L.R.B.C. Part 1 (Carson *et al.* 1965)

7) Roman Pottery L Rollo

The pottery from the evaluation exercise undertaken during the autumn of 1985 has been catalogued to the minimum level (the 'ceramic archive') recommended by the Study Group for Roman Pottery in its Guidelines Advisory Document 1, 1994. The database was compiled using Dbase IV, and copies both as a print-out and on diskette are attached herewith. This report was generated using Word Perfect.

1653 sherds of pottery, weighing a total of 29,936 gms have been classified using a form and fabric type series created by amplifying the codes for imported, provincially- and regionally-traded wares, currently used at the City of Lincoln Archaeological Unit, to include the local products of the Lower Nene Valley, based on the types identified in *Roman Pottery from the Nene Valley: A Guide*.

The Fabrics

The pottery was generally in a good state of preservation with, however, some indication of post-depositional staining and accretions which suggest that some of the contexts may have been waterlogged periodically. The one fabric type which displays these characteristics most markedly is the shell-gritted pottery. Sherds of this material have generally lost their surface shell content through water-leaching and are noticeably softer and more friable than normal; surface colouration has also been affected. For this reason fine typological and chronological categorisation has been compromised: it has been possible to distinguish merely that material which is probably Roman (SHEL-R), that which is unidentifiable (SHEL), and only pottery exhibiting unambiguous pre-Roman technological and decorative characteristics has been identified as prehistoric (IASHC). The lack of recognisably prehistoric material in the catalogue may, therefore, be more apparent than real. However, the prevalence of scored wares on Middle and Late Iron Age sites generally in the East Midlands suggests that its scarcity here is a valid indicator of low activity at WBP in the pre-Roman period.

From Table 1, an analysis of the material by fabric, it is immediately apparent that the overwhelming preponderance of the pottery is Roman: there is little evidence from the collection for any contexts which suggest anything but random activity on site before or after that date. (Such groups as do exist have been identified in the attached catalogue.)

Table 1: Analysis of the Pottery from WBP 95 by Fabric

Fabric Code	Count	Weight
LNene Valley Colour-coats (inc. micadusted)	326	5059
LNene Valley Grey Wares	543	7029
LNene Valley Cream Wares	37	222
Shell-gritted undiag.	66	659
Shell-gritted-Roman	389	6950
Imported Fine Wares	1	2
Early ?local Grey Wares	168	1572
Late Non-local Grey Wares		546
Early ?Non-local Cream Wares	10	169
Early Grog-tempered Wares	20	226
Mortaria	27	1066
Samian	29	283
TOTAL ROMAN	1634	23783
Shell-gritted - Preh	11	77
Saxon, Medieval & Post Medieval	3	47
Modern	5	29
SITE TOTAL	1653	23936

The pattern of supply in ceramics to the site is unremarkable for the area: over 96% by count (94% by weight) of the pottery was manufactured in the Lower Nene Valley itself. A small proportion of material (37 sherds, weighing 954 gms) was identified by characteristics either of form or fabric as being the products of the Stanground kiln group (Dannell *et al* 1993), and more is probably present which was not recognised during the rapid scanning used whilst cataloguing. These kilns form the easternmost outlier of the well-documented industry operating in the Roman period, which exported a selection of its products over the whole province. Stanground should, logically, have been supplying sites in its eastern hinterland, but little is known at present of Roman settlement activity on the Whittlesey island and the supposition remains untested. Further excavations at WBP would provide an ideal opportunity to test this theory, and any research design for future work should certainly include this objective in its strategy for the Roman ceramics as a perfectly feasible and cost-effective component: following full publication of form (*op cit*) and fabric types (Cooper 1989) enough idiosyncrasies have been identified to permit reasonable levels of certainty in the recognition of Stanground products from the hand-held specimen.

Spatial Patterning Of Material

Table 2 provides a crude index of the spatial patterning of the material retrieved from the site and shows very plainly the concentration of Roman ceramics in and around Trenches II, III, IV and XIV and the very sharp fall off in quantities away from that focus of activity. In particular, the southern- and eastern-most trenches, XII, XI, XIII, VIII and IX produced a total of 2 sherds (one - medieval, one - undiagnostic shell-gritted) which would argue for little or no domestic activity in those areas. The other outlying trench, I, contained no pottery which was not definitely prehistoric (ie probably pre Late Iron Age).

Table 2: Quantities of Pottery Recovered, by Trench

Trench	Count	Weight
I	10	41
II	775	11364
III	22	492
IV	387	5133
V	18	117
VI	0	0
VII	0	0
VIII	0	0
IX	1	2
X	19	36
XI	1	3
XII	0	0
XIII	0	0
XIV	66	1057

Broad Dating For Site Assemblage

Three dates are assigned to each catalogue group: a total date span for the material present; a TPQ, being the earliest possible date for the latest material; and a date for the deposition of the group. No attempt has been made to offer a date of the last type to material which is obviously unstratified, such as machine spoil. Where one has been given, it must be remembered that the date is for the collection of pottery and does not necessarily apply to the context; the factor of possible residuality must always be considered and the high levels of brokenness (individual sherds from different vessels) suggests that much of the pottery has been subject to several episodes in the site formation process. An assessment of the general dates for activity on site has attempted to allow for these considerations and also takes into account absence of expected types and wares as well as reviewing such fabrics and forms as are present. Dates awarded individual types specifically target periods of currency in manufacture and do not account for survivals in use.

Table 3 provides a rough breakdown chronologically of the pottery from the site by imposing a broad scheme of periodisation for the contexts,

identified by catalogue numbers. The dating for "early"- and "middle"-period contexts overlaps considerably (see key to Table 3) so it is inadvisable to draw any but the most basic conclusions. The levels of activity on site certainly seem to rise after the early Roman period (ie Mc1-Lc2). Such early material as exists does not contain very much that has to date pre Mc2. The over-all scarcity of recognisably Ec2 pottery (no London-type wares, and low quantities of typologically early forms amongst the ?non-local early grey wares) support this hypothesis. Activity continued on site until sometime in the c4 although not necessarily into the latter half: the quantity of LNVCC recovered from late contexts is only slightly greater than that of LNVGW (150/2815 gms LNVCC: 126/1746 gms LNVGW) suggesting that occupation had ceased before the Mc4, after which time LNVGW appears in the archaeological record only in residual amounts.

Table 3: Rough Chronological Breakdown of Groups, by Cat No

Period	Count	Weight	%(C)	%(W)
"Early" Mc1-c2	139	2142	13	13
"Middle" c2-c3	419	6367	40	37
"Late" Lc3-c4	457	8110	44	48
"PREH"	16	146	1.5	1
"POST ROM"	18	157	1.5	1
TOTAL DIAG	1049	16922		
NO COMMENT	604	7014		
SITE TOTAL	1653	23936		

General Conclusions

1. The pottery from Hanson Brick Kings Dyke Quarry forms a meaningful assemblage which reflects domestic settlement activity in the Roman period from Mc2-Mc4.
2. Any future excavation of the site would be bound to produce a pottery assemblage, the study of which would illuminate our knowledge of patterns of ceramic supply (and by implication broader aspects of economic activity) in the Roman period in an area of the Whittlesey Island which must have been of some importance, lying as it did close to the ingress point of the Fen Causeway off the Fen. Although previous excavations have uncovered evidence for Roman activity in the vicinity of Funthams Lane, none of the pottery from these exercises has been published. Thus, further work in Area A will materially extend present levels of knowledge of Roman pottery use in this part of the Fen Edge. In particular, future investigations would offer an opportunity to characterise the site's role as a market for Stanground pottery.

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