

*BIRMINGHAM UNIVERSITY
FIELD ARCHAEOLOGY UNIT*

**LAND OFF THIRD DROVE, FENGATE,
PETERBOROUGH
AN ARCHAEOLOGICAL EVALUATION
1998**

FINAL REPORT

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Land off Third Drove, Fengate, Peterborough
An Archaeological Evaluation 1998
FINAL REPORT

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1.0: SUMMARY

1.1: Project

An archaeological evaluation of land off Third Drove, Fengate, Peterborough, Cambridgeshire was commissioned by John Samuels Archaeological Consultants, on behalf of The Commission for the New Towns. This report describes the results of trial-trenching on two adjacent sites, one to the southwest of Third Drove (Site O), the second to the northeast of Third Drove (Site Q). The evaluation was carried out by Birmingham University Field Archaeology Unit (BUFAU), following completion of an archaeological desk-top study by John Samuels Archaeological Consultants. Both sites are proposed for redevelopment by the Commission for New Towns.

1.2: Site O: location and results (Fig. 1A-B)

Site O comprises an area of approximately 6.47ha. (centring on NGR TL 21209825), located to the southwest of Third Drove, Fengate, Peterborough. It is one of the few remaining undeveloped areas of the industrial estate at Fengate. Bordering the site to the northwest is Storey's Bar Road, and to the northeast is Third Drove. Cat's Water drain defines the southeastern extent of Site O, with scrubland immediately to the southwest. Further to the south the area has been developed for industrial units. The site is bisected by the Parish Drain, a drainage ditch aligned roughly east-west. Land to the north of the Parish Drain (Area 1, Fig. 2) has recently been ploughed, although not cropped.

A previous evaluation of the southeastern part of Site O, to the south of the Parish Drain, had been undertaken through test pitting and the excavation of two trial trenches in 1995 (Evans and Pryor 1995). A total of five trial-trenches (1-5) was located within Site O by BUFAU in 1998. A scatter of pits, post-holes and related features of Neolithic-Bronze Age date was identified in Trenches 1-4. Of particular potential significance is the possible longevity of elements of this settlement, which could have extended from the later Neolithic to the Late Bronze Age. Bronze Age ditches and a bank were identified in Trenches 3 and 4 which may have formed a driveway within the larger Fengate Bronze Age field system. Trench 4 located a complex of Middle and Late Iron Age features which forms part of a larger settlement excavated to the southeast of the site in 1992. The evidence from Trench 4 indicates that four phases of Iron Age activity could be distinguished, and, perhaps more significantly, that this is a stratified Iron Age settlement, probably not disturbed by Romano-British activity.

1.3: Site Q: location and results (Fig. 1A-B)

Site Q comprises an area of approximately 8.21ha. (centring on NGR. TL 21629868), located to the northeast of Third Drove, Fengate, Peterborough. This site is bordered to the northwest by Storey's Bar Road, and to the northeast by open ground (the site of earlier open area excavations). Cat's Water drain defines the southeastern extent of Site Q. Land to the southwest, between Site Q and Third Drove, has been developed as industrial units. Site Q is bisected by the Parish Drain, aligned northeast-southwest. Land to the northwest of the Parish Drain (Area 3) is currently under plough, and the land to the southeast is used as a moto-cross track.

A total of seven trenches (6-12) was dug within the site by BUFAU in 1998. Trenches 10-12 provided evidence that ditches 1 and 2 of the Fengate system are aligned on the 'inlet' north of the Fenlake Business Centre. This 'inlet' could have been used as a staithe or landing stage, although this is not provable on the present evidence. The results from Trenches 10-12 also suggested that the Cat's Water Iron Age settlement did not extend far beyond the original open area excavations to the north. A possible Bronze Age field boundary was identified in Trench 7.

1.4: Deposit model

Following a discussion of the significance of the results from the evaluation excavations, a deposit model is provided which indicates by zoning the relative archaeological potential of the proposed development area. Zones of particular archaeological interest and potential are nos. 1, 2, 3, 4 and 6. However, Zones 5 and 7, which are the northeastern corner of the site and the vicinity of the Cat's Water drain, are considered to be of a lesser archaeological potential.

1.5: Impact

The impact upon the zones of identified archaeological interest will depend upon the nature of any development scheme. However, mitigation will be possible either through the scheme's design or by archaeological excavation, if necessary, when details of a development scheme are known.

2.0: INTRODUCTION

This report outlines the results of an archaeological evaluation of approximately 14.68 ha. of land located to the northeast and southwest of Third Drove, Fengate, Peterborough, Cambridgeshire (Fig. 1). The work was undertaken for The

Commission for New Towns by Birmingham University Field Archaeology Unit during February 1998.

In accordance with the guidelines laid down in Planning Policy Guidance Note 16 (November 1990), a recommendation for an archaeological evaluation was made by the County Archaeology Office of Cambridgeshire County Council in advance of a proposed development. The methodology of this evaluation conforms to a Design Brief prepared by the County Archaeology Office.

The purpose of the evaluation was to determine the location, extent, date, character, significance and quality of any archaeological remains which may be affected by the proposed development and to provide a basis for a series of recommendations to mitigate the impact of the development. This report provides a detailed description of the results of trial-trenching, and an assessment of the finds and environmental data.

For the purposes of this assessment the site was sub-divided into three areas (Fig.2):

Area 1 lay to the north of the Parish Drain (Site O only).

Area 2 lay to the south of the Parish Drain (Sites O and Q).

Area 3 lay to the north of the Parish Drain (Site Q only).

3.0: THE SITE AND ITS SETTING

The site lies on First Terrace Nene gravels, which are overlain by alluvial clays and peats. The assessment area is located across the western edge of the Fengate/Flag Fen system, a prehistoric landscape that has provided a substantial contribution to our understanding from the Neolithic through to the Late Iron Age.

A desk-based, historical assessment of the extensive body of information relevant to Sites O and Q has been summarised (Rosenberg 1997) and it is not the intention for this to be repeated in this report.

4.0: METHODOLOGY

In Trenches 1 to 4 (Figs. 1 and 3) the overburden was removed by a mechanical excavator, exposing the uppermost levels of the buried soil horizon. The machined surface was then hand-cleaned to define any archaeological features present. Archaeological features were then sampled by hand-excavation to provide information concerning the survival and complexity of the fills, and to recover artifactual and ecofactual samples for analysis. The buried soil horizon was then removed by mechanical excavator to the upper horizon of the natural subsoil. This was then hand-cleaned to define archaeological features which were again sampled by hand excavation.

Ditches along the northwestern and northeastern boundaries of Site O were re-cleaned by mechanical excavator and then hand-cleaned to locate any archaeological features present. Features were recorded in section only and were not excavated. The south-

facing section of the Parish Drain within Site O and the northernmost 100m of the drain within Site Q were similarly cleaned, and a photographic record was made of archaeological, or possible archaeological, features.

A comprehensive level survey was made of the height of the natural ground surface in the base of all trenches, along the Parish Drain and along the cleaned ditches bordering Site O to the northwest and the northeast. This information was collated with the results of an earlier evaluation within the southeastern part of Site O (Evans and Pryor 1995) and the results of the borehole and trial pit survey to produce a provisional deposit model (Fig. 9).

Recording was by means of pre-printed, pro-forma recording sheets for contexts and features, supplemented by scale drawings, plans, sections, and photographs, which are all held in the archive.

5.0: RESULTS

5.1: Area 1 (Trenches 1-4: Site O, Fig. 1)

5.1.1: Objectives

A total of four trenches was located in Area 1 (Trenches 1 to 4), north of the Parish Drain, in an area containing substantial cropmarks. These trenches were positioned in order to test the extent and character of the buried deposits, and were cut at right angles to intercept cropmarked ?ditches.

5.1.2: Trench 1 (Fig. 3)

Description

Trench 1 measured 65m in length and was orientated east-west. The natural subsoil, a red sand and gravel (1004) was exposed at a depth of 0.74m below the surface of the modern ploughsoil. Approximately 3m from the western end of Trench 1 was an ovoid possible pit (F107). Measuring 0.76m in width, 2.20m in length and 0.52m in depth, it was filled by a silty sand (1023), sealed by a grey-brown silty-clay (1013). Located to the east was a well-defined small pit (F102), circular in plan with steep sides and a flat base. Measuring 0.49m across and 0.24m in depth, it was filled by a single fill of grey-brown silty-clay (1007) which contained flecks of charcoal and worked flint. Further to the east was a small stakehole (F103), 0.19m across and 0.08m in depth, filled by a grey-brown sandy clay (1008).

Approximately 15m from the western end of Trench 1 was an area of grey-brown silty-clay (1092: unexcavated), measuring 2.0m in length and 0.7m in width, interpreted as a tree bole. To the east was a small circular post-hole (F104), measuring 0.30m across and 0.15m in depth, filled by a brown silty-sand (1009). Approximately 9m to the east was a well-defined pit (Feature F100, Plate 1), circular in plan, with steep sides and a rounded base. Measuring 0.84m across and 0.52m in

depth, it was filled by a grey silty clay (1005). To the east of F100 was a second, shallow, ovoid pit (F101) with gradually sloping sides and a rounded base. Feature F101 measured 0.80m in length and 0.19m in depth and was filled by a blue-grey silty clay (1006).

Located respectively approximately 42m and 47m from the western end of Trench 1 were two circular patches of silt (1116 and 1117, not excavated), each approximately 0.6m in diameter, which may be small pits. To the east of these was a linear band of silt (1118, not excavated) orientated north-south, approximately 1.1m in width, possibly a natural feature. In the east of the trench were three small circular pits (F113, F110 and F115). Features F113 and F110 measured approximately 0.9m in width and were cut with steep sides and a rounded base to a depth of 0.25m. Feature F113 was filled by a dark brown sandy-silt (1024). Feature F110 had a primary fill of compact, light grey clay (1025), sealed by a red-brown lens of redeposited burnt clay (1021) and a grey sandy-clay with charcoal flecking (1022), overlain by a dark grey charcoal rich silty-clay (1017). Feature F115 measured 1.0m in width and 0.10m in depth. Filled by a grey silty gravel (1026) Feature F115 contained no finds. Located between Features F113 and F110 were two small patches of grey silt (1119 and 1120: not excavated, each approximately 0.3m across), possibly two post-holes or one pit. Two further areas of grey silt were also evident at the eastern end of Trench 1 (1121 and 1122: not excavated), which may be natural in origin.

All features in Trench 1 were sealed by a layer of grey-brown sandy-silt (1002), which measured 0.25m in depth. No anthropogenic features were identified within, or cutting, this layer, which was sealed by a homogenous layer of grey-brown clay, (1001), varying in depth from 0.22m to 0.28m. A mixed interface between layers 1001 and 1002 was noted, having a depth of approximately 0.10m. Above was the topsoil (1000), measuring approximately 0.24m in depth.

Finds

A flint scaper was found in feature F110 (1025), and a flint core was recovered from layer 1003. Flint flakes were found in features F100 (1005) and F102 (1007). A group of plain sherds of Late Bronze Age/Early Iron Age pottery was found in features F100 (1005), F110 (1017) and F113 (1024).

Interpretation

Settlement features including pits and post-holes were recorded along the length of Trench 1. All of the features sampled by excavation were cut from the upper horizon of the natural subsoil, and were sealed by the buried soil. It seems likely that post-holes F102, F103 and F104 relate to different structures, suggesting that there may be several phases of activity. Although pit F100 was deeper than other pits in the trench (F101, F113, F110 and F115), all these features may have been associated. Pits F100, F110 and F113 contained pottery dated to the Late Bronze Age/Early Iron Age. Only one pit (F113) from this group contained significant charred plant remains, typical of waste material found on Bronze Age sites. Two areas of silt (1116 and 1117) may be part of this pit complex. A band of grey silt (1118) may relate to a northwest-

southeast aligned enclosure ditch excavated to the north (Storey's Bar Road excavation, Pryor 1978), although it seems more likely that this ditch is located slightly to the east of the trench.

The absence of later features cutting the buried soils may be an indication of a change in land use after the Late Bronze Age/Early Iron Age, from settlement to agriculture, although features of later date may be encountered elsewhere.

5.1.3: Trench 2 (Fig. 3)

Description

Trench 2 measured 60m in length and was orientated east-west. The natural subsoil, a red sand and gravel (1004), was exposed at a depth of 0.74m below the modern surface. Located approximately 2m from the western end of Trench 2 was an ovoid pit (F140), measuring 1.42m in length, 0.38m in width and 0.13m in depth. Feature F140 was filled by a pale grey sandy clay (1056). To the east was a shallow ovoid post-hole (F131), having a rounded profile and measuring 0.42m in diameter and 0.10m in depth. Feature F131 was filled by a light brown-grey sandy clay (1043). Further to the east were two features filled with grey silt (feature F132 (1044) and context 1123). Only the former was excavated: it measured 2.4m in length, 0.8m in width and 0.16m in depth, and was irregularly-shaped in profile. Both may be natural in origin.

Located 15m from the western end of Trench 2 was an irregular ovoid feature (F135). Having a stepped profile, feature F135 measured 2.60m in length and 1.59m in width, and was filled by a grey-brown silt (1050) to a depth of 0.20m. It may be natural in origin. Further to the east were two small circular deposits of grey silt (1124 and 1125: not excavated), measuring 0.40m in diameter, which may be interpreted as post-holes. Towards the centre of the trench were three short linear deposits, two aligned north-south (feature F138 and context 1127: unexcavated), the third aligned east-west (context 1126: unexcavated). The easternmost (feature F138), only partly recorded within the trench, measured 0.85m in width and 0.25m in depth, and was filled by a grey sandy clay (1053). It may be interpreted as a ditch terminal.

Approximately 35m from the westernmost end of Trench 2 were three well-defined post-holes (features F133, F136 and F137: Plate 2). Circular in plan, these post-holes measured between 0.6m and 0.8m in diameter, each cut with steep sides and a flat base to a depth of 0.20m. The westernmost (F137) was filled by a grey silty-clay (1052); feature F136 was filled by a charcoal-rich, dark grey silty-clay (1051); and feature F133 was filled by a grey sandy-clay (1045). This feature group may have been associated. Post-holes F133, F136 and F137 were sealed by a layer of grey silty-clay (1054), measuring 0.12m in depth. Differential drying of deposit 1054 suggested that the removal of layer 1054 may reveal more features. Several patches of grey clay (to the east of feature F133) were tested at the eastern end of Trench 2, all of which proved to be natural in origin.

The cropmark plot shows the presence of a double ditched enclosure at the eastern end of Trench 2. Whilst no evidence for this enclosure was recorded, the cropmark plot shows an interruption in the two ditches, possibly denoting an entrance to the enclosure, across which the trench may have been unfortuitously located.

All features in Trench 2 were sealed by a layer of grey-brown sandy-silt (1002), measuring an average of 0.24m in depth. No anthropogenic features were identified within, or cutting, this layer. Layer 1002 was sealed by a homogenous layer of grey-brown clay (1001), 0.22m in depth. As in Trench 1, a mixed/disturbed interface between layers 1001 and 1002 was noted. Above was a dark brown topsoil (1000), approximately 0.22m in depth.

Finds

Flint flakes were found in features F136 (1051) and F137 (1052). Plain wall sherds of Late Neolithic/Early Bronze Age pottery were found in feature F136 (1051).

Interpretation

All features within Trench 2 were cut from the level of the natural subsoil horizon and would appear to represent settlement activity from several phases. The earliest features may be a group of post-holes (F133, F136 and F137, Plate 2), possibly part of one structure which was sealed by a layer of silt (1054). The environmental samples produced significant amounts of charcoal from post-hole F136.

A pit (F140) and one post-hole (F131) were identified at the western end of Trench 2. Neither produced any finds, but both were sealed by the buried soil, suggesting these both pre-date the Late Bronze Age. Of the remaining features excavated, only one (F138), the terminal of a north-south aligned ditch, appeared to be anthropogenic in origin. Two further possible post-holes (1124 and 1125: unexcavated) were recorded in Trench 2.

The cropmark plot (Fig. 1) suggests the presence of a bi-vallate enclosure ditch at the eastern end of Trench 2. Two sondages were cut through possible disturbances within this area, but the cropmarked ditches were not located. However, the cropmark plot suggests a break in the line of the ditches at the point where Trench 2 intercepts the enclosure. It may be that the trench has been located unfortuitously across this possible enclosure entrance.

As in Trench 1 no features were recorded cutting the buried soils in Trench 2.

5.1.4: Trench 3 (Fig. 4)

Description

Trench 3 measured 60m in length and was orientated east-west. The natural subsoil, a red sand and gravel (1004), was exposed at a depth of 0.70m below the surface of the modern ploughsoil. At the western end of Trench 3 were three (unexcavated) areas of

grey silty-clay (1128, 1129 and 1130), which are probably anthropogenic. The latter was amorphous in shape. To the east were two gullies (F118 and F119). Both had V-shaped profiles, and were aligned northeast-southwest. The westernmost (F119) measured 0.75m in width and 0.20m in depth. Feature F118 measured 0.39m in width and was excavated to a depth of 0.12m. Both features were filled by a light blue-grey silty-clay (1029 and 1030, respectively).

Further to the east was a cluster of five small circular pits or post-holes (F116, F117, F120, F121 and F122), which may relate to more than one structure or phase. Features F116 and F122 both measured approximately 0.50m in diameter and 0.25m in depth. The easternmost feature (F116) was filled by a dark grey, charcoal rich silt (1027). Feature F122 was filled by a dark brown sandy silt (1033). Feature F117 was broader and deeper than the remainder of the feature group, and was filled by a charcoal rich silt (1028). Feature F120 (Plate 3) was cut with vertical sides and a flat base to a depth of 0.40m. It contained a single fill of dark brown sandy silt (1031). Feature F121 measured 0.08m in depth, with a stepped profile and a single fill of light brown silty-clay (1032). An adjoining natural feature (1131) was also excavated.

Located 16m from the western end of Trench 3 was a shallow pit (F152, Plate 4), sub-circular in plan, 0.65m in diameter and mostly filled by a large stone. The stone was rounded, apart from one indented surface, and may be interpreted as a padstone. Immediately to the west was a small circular feature (F166), 0.22m in diameter and 0.20m in depth, with a single fill of grey silt (1093). To the east of Feature F152 were seven patches of silt (1132). Two of the easternmost of these patches were excavated and found to be natural in origin; the remainder could possibly be post-holes.

Aligned northwest-southeast, located between 30m and 60m from the western end of Trench 3, were three ditches (F123, F124 and F125). The westernmost (F123) measured 0.90m in width, but was not fully excavated. Its earliest excavated fill was a deposit of orange-brown silty-clay (1034), which was sealed by a light grey-brown gravel (1094). The middle ditch (F124) was V-shaped in profile, and measured 0.75m in width and 0.40m in depth. The primary fill consisted of an orange-brown silty-sand (1038), which was sealed by a grey-brown sandy-silt (1037). The northern butt-end of ditch F124 was recorded within the trench, and it may have originally been constructed with a gravel bank along its northwestern edge. The easternmost ditch (F125: Plate 5) was cut to a V-shaped profile, and measured 0.90m in width and 0.39m in depth. Its primary fill of grey-brown silty-clay (1036) was sealed by a deposit of orange-brown silty-sand and gravel (1035). These ditches may have formed part of a droveway which may terminate towards the Bronze Age fen edge. Their fills suggest gradual infilling by natural erosion and weathering, with no evidence of freshwater flooding.

Located between ditches F124 and F125 were several patches of light grey-brown sandy silt (features F129, F130 and F127). The former two were confirmed to be natural in origin by excavation. The third (F127), measuring approximately 0.8m in width and 0.42m in depth, was filled by a light brown sandy-silt, may be interpreted as a post-hole. A further post-hole (F128), of irregular profile, and measuring 0.82m in diameter, was recorded to the north of the former, and may also be interpreted as a

post-hole. Feature F128 was filled with grey silt (1047), and sealed by a light grey sand (1040).

All the features in Trench 3 were sealed by a buried soil consisting of grey-brown sandy-silt (1002), with an average depth of 0.22m. No features were identified within, or cutting the buried soil (1002). Layer 1002 was sealed by a homogenous grey-brown alluvial clay (1001), 0.22m in depth. As in Trenches 1-2, a mixed/disturbed interface between layers 1001 and 1002 was noted. Above was a dark brown topsoil (1000), approximately 0.22m in depth.

Finds

A flint blade was found in feature F166 (1027), and flint flakes were found in features F117 (1028) and F122 (1033). Feature F120 (1031) contained sherds from an Early Bronze Age Collared Urn. Feature F129 (1041) produced one rim fragment and two wall sherds from a single Beaker vessel decorated with comb-impressed geometric designs.

Interpretation

An increased density of features was recorded at the western end of the trench. These included two gullies (F118 and F119), and a group of pits and post-holes (F116, F117, F120, F121 and F122). Both features F117 and F122 also produced significant amounts of charcoal, and these may be contemporary. Pit F120 (Plate 3) produced a large unabraded rim sherd from an Early Bronze Age Collared Urn, fired clay daub and a fired clay cylindrical weight with a narrow central perforation. This was found in association with a large stone weight. Bulk samples from pit F120 also produced evidence of Culm Nodes, indicating the presence of burnt straw.

Interpretation (Trenches 3 and 4)

Three ditches (F123, F124 and F125, Plate 5), evident within Trenches 3 and 4 are all of a similar alignment, and may represent a Bronze Age droveway. The droveway is aligned northwest-southeast, on a similar alignment to another droveway to the north (Pryor 1980, 1984). The three ditches may not be of the same phase since the central ditch (F124) appears to terminate within Trench 3, and may have been associated with a bank located to the northeast. No finds were recovered from these features and the preservation of charred plant remains was poor. It may be possible that these ditches continue to the edge of the former Bronze Age fen where possible waterlogged conditions may be favourable to the preservation of organic material. These ditches typically turn outwards at the former fen edge. Should further excavation prove these ditches to be a droveway leading to the former Bronze Age fen edge, consideration might be given to the possibility of waterlogged posts continuing the line of the droveway into the area of the former fen.

Several pits and post-holes (F127 and F129, Trench 3 and F144, F147, F148 and F149, Trench 4) were located within the droveway. The pits yielded little in the way of charred plant remains. Excavation and the pottery assessment have suggested that

these pits are likely to be the result of at least two phases of activity dating to the Neolithic and Early Bronze Age. Their chronological relationship to the droveway, however, is interesting because the two would not have been in contemporary use. Further excavation may show that the pits pre-date the droveway.

5.1.5: Trench 4

For simplicity, the features within this trench are described by phase (1-4), and from south to north.

Description

Phase 1 (Figs. 4 and 5: Level 1)

Trench 4 measured 100m in length and was orientated north-south. The natural subsoil, a red sand and gravel (1004), was exposed at a depth of between 0.70m (north end of trench) and 0.94m (south end of trench).

Cut into the natural subsoil (1004) at the southern end of Trench 4 were three distinct areas of grey-brown silt, measuring between 0.20m and 1.0m in diameter (1096, 1097 and 1098, not illustrated), which may be interpreted as pits. Evident at the base of the hand-excavated slot along the eastern baulk of Trench 4 were three circular features (F156, F157 and F158), each approximately 0.5m in width and cut to depths of between 0.10 and 0.15m. Filled by a grey-brown sandy-silt (1080, 1081 and 1082), these features were all cut with rounded profiles, and may have been associated.

Further to the north were eight circular features (1099-1106: not excavated), varying between 0.20m and 0.40m in diameter, probably pits or post-holes. The fills of these varied from light grey to a distinctive, charcoal-rich dark grey silt, recorded in plan. Located between 23m and 30m from the southern end of Trench 4 were four areas of grey-brown silt (1107 to 1110).

Located between 35m and 65m from the southern end of Trench 4 were three ditches (F123, F124, and F125), aligned northeast-southwest (excavated within Trench 3: Fig. 4). Between ditches F123 and F124 a large circular disturbance (context 1111: unexcavated), of possible natural origin, was recorded.

Between Features F124 and F125 were three large circular pits (F144, F147 and F148), measuring between 0.80m and 1.2m in diameter and cut to a depth of approximately 0.20m. Feature F144 was cut with steeply-sloping sides and a flat base, and had a single fill of dark grey-brown sandy-clay (1061). Feature F148 cut feature F149, only part of which was recorded within the trench. Cut with a rounded profile, feature F148 was filled by a very dark, grey-brown sandy-clay (1068). The fill of feature F148 (1068) had been truncated by the cutting of a later feature (F147) to the west, filled by a dark grey-brown silty-clay (1067).

Located to the south of feature F125 was a small, well-defined, circular possible post-hole, approximately 0.3m in diameter (1095: unexcavated). Approximately 3m to the

northeast of ditch F125 were two small possible post-holes, measuring an average of 0.25m in diameter (1113 and 1114: unexcavated). Other areas of disturbance were noted, adjoining ditch F125 (1112), and approximately 61m from the southern end of Trench 4 (1115: not illustrated); neither was excavated.

Approximately 70m from the southern end of Trench 4 was a large pit (F134: Fig. 5, Plate 6), measuring 1.30m in width and 0.70m in depth. Cut with steep sides and a rounded base, its primary fill was a light grey-brown silty-sand (1058), sealed by a light grey-brown silty-sand (1055), in turn overlain by a deposit of light grey-brown silty clay (1049). Approximately 6m to the north was another circular pit (F141).

A buried soil developed on the natural ground surface in Trench 4. This buried soil is a weathering, developing complex over time. At the southern extent of Trench 4 no distinction could be observed between each layer of buried soil, consequently 0.05m spits were removed by machine. Features were visible at different horizons within the buried soil because of post-depositional processes. These features were recorded before proceeding to remove the next layer of buried soil.

Phase 2 (Fig. 5: Level 2, Plate 7)

At the south end of Trench 4 (to the south of feature F155) a buried soil (1091) developed over the natural ground surface. Located approximately 5m from the southern end of Trench 4 was a circular disturbance (1133), measuring 0.60m in diameter. To the north was a sub-circular pit (F150) which measured 0.70m in diameter and 0.23m in depth. Cut with steep sides and a rounded base, pit F150 was clay lined. Its primary fill was a brown silty-clay (1073), sealed by an orange-brown silty-clay (1072). A further clay-lined pit (F151) was recorded to the north. Measuring 0.65m in width and 0.25m in depth, feature F151 was cut with steep sides and a flat base. Feature F151 was also clay lined, and was filled by a dark brown, charcoal-rich silty-clay (1074).

Phase 3 (Fig. 5)

The lowest level of buried soil (1091) was sealed by other homogenous buried soils (1015, 1016 and 1092). Located approximately 3m from the southern end of Trench 4, and cut into context 1091, was a small circular pit (F145, Plate 9). Measuring approximately 1.0m in diameter and 0.52m in depth, feature F145 was cut with steep sides and a flat base. It was filled with a grey, charcoal rich silty-clay (1069), sealed by a dark brown silty-sand (1065).

To the north were two circular pits (F143 and F146). The southernmost pit (F146) measured approximately 1.0m in diameter and 0.15m in depth. Its fill was an orange-brown silty-sand (1066). Pit F143 (Plate 10) measured 0.65m in diameter and 0.3m in depth. Its base was lined with grey clay (1063), which was sealed by a brown-red, charcoal rich clay-silt (1062), overlain by a further lining of light grey and mixed red clay (1060). The upper fill of feature F143 was an orange-brown silty-sand (1046).

Approximately 15m from the southern end of Trench 4 was a large ditch (F155), aligned east-west. Measuring approximately 1.10m in width and with a depth of 2.40m, it was cut with a V-shaped profile. It was filled with an orange-brown sand and gravel (1134), sealed by a grey-brown sandy clay (1084), in turn overlain by a deposit of orange-brown silty-sand and gravel (1083). The ditch appears to have been re-cut (F154) to a similar width and profile, but the re-cut measured only 0.60m in depth. The primary fill of the re-cut was a grey sandy-clay with charcoal (1079) overlain by a dark grey silt (1089), in turn sealed by an orange-brown silty-sand (1078).

To the south of ditch F155 was a post-hole (F163: not illustrated), 0.20m in diameter and 0.22m in depth. Filled by a grey-brown sandy-silt (1077), this post-hole was truncated by a small gully (F153), aligned east-west, located to the south of the large ditch (F155). Measuring 1.0m in width and 0.4m in depth, gully F153 was filled by a single deposit of mottled sand, gravel and grey silt (1076).

To the south of the east-west aligned ditch (F155), the buried soils (1091, 1019) reached a maximum depth of 0.50m, and were sealed by a layer of sand and gravel (1020) which formed a bank (F112) to the south of the ditch (F155), which sealed re-cut ditch F154.

Phase 4 (Fig. 5, Plate 11)

Located approximately 20m from the southern end of Trench 4 was a large shallow depression (F106), only partly recorded within the trench. It was filled by a blue-grey alluvial clay (1011). To the north was a shallow scoop (F114), possibly natural in origin, again only partly recorded within the trench. It was also filled with a blue grey alluvial clay (1072). Located to the east of features F106 and F114 was a north-south aligned ditch (F105), measuring approximately 1.0m in width. It was filled by an orange-brown silty-sand and gravel (1135, not fully excavated), similar to the matrix of the natural subsoils, and sealed by a blue-grey alluvial clay (1010). To the northeast of ditch F105 was a shallow scoop filled by blue-grey alluvial clay, possibly natural in origin.

Finds (Phases 1-4)

A flint blade was found in layer 1015, and retouched flint flakes were found in features F143 (1046) and F134 (1055). Flint flakes were found in features F134 (1049), F146 (1066), F148 (1068) and F155 (1083). Phase 1 pit F148 (1068) contained thin-walled sherds in a hard vesicular fabric of Neolithic date. Feature F134 (1049 and 1055) produced plain sherds of Early Bronze Age pottery. Phase 2 yielded a total of 115 sherds of Middle Iron Age pottery. Most of this material derived from features F150 (1072) and F151 (1074). The pottery suggests a date around 350 BC for the Phase 2/3 transition.

Interpretation

Trench 4 identified the presence of a ditch (F155), recorded as a cropmark, aligned east-west. The deposition of ditch upcast to its south may have sealed and protected earlier features and deposits from disturbance. The trench was excavated by means of several machine-dug spits, following sampling by hand-excavation. Finally a hand-dug sondage was excavated at the southern end of Trench 4. Features and deposits were recorded at each machine-cleared level, indicating that the buried soils here are not the result of a single event, but rather of a gradual accumulation of deposits.

Phase 1

The results from the southern end of Trench 4 demonstrated the preservation of more complex stratigraphy than was evidenced elsewhere within Area 1. All features sealed by the lowest horizon of buried soil have been identified as Phase 1 activity. However, further pottery analysis (outside the scope of this evaluation) may indicate that this phase may be sub-divided. The droveway ditches (F123, F124 and F125) and pits (F127 and F129, Trench 3 and F144, F147, F148 and F149, Trench 4), discussed previously, have already highlighted at least three different periods of activity, these being possibly Neolithic and Early Bronze Age pits and a later droveway.

A sondage excavated at the southern end of Trench 4 revealed three post-holes (F156, F157 and F158) and two possible post-holes (1096 and 1097: unexcavated) Although not datable artifactually, since they were well sealed by the lowest horizon of the buried soils it is possible to suggest a date in the Neolithic or Bronze Age. A further group of post-holes (1099-1106: unexcavated) and pits (1107-1110: unexcavated) sealed by the lowest horizons of the buried soils, almost certainly represent Neolithic or Bronze Age activity. The density of features suggests several structures or phases may be represented here.

Pitting (F134 and F141, Plate 6) to the north of the droveway (features F123, F124 and F125) produced little from the bulk samples. The majority of the area examined within Trench 4 revealed evidence of Phase 1 activity. The datable pottery from Phase 1 features was of Neolithic/Early Bronze date.

Phase 2 (Plate 7)

Phase 2 is represented by pitting (F150, Plate 8, and F151, and 1133: unexcavated) at the southern end of Trench 4 only. Feature F150 may have been originally dug to retain water, being clay lined and containing large fragments of a single pot. Pit F151 to the north contained a large quantity of burnt stones, which may have been used as pot boilers (that is, heated in a fire and then placed into water in order to heat the water). Bulk samples from F150 produced environmental fragments (caryopses). The datable pottery from Phase 2 features is Middle Iron Age in date.

Phase 3

The large east-west aligned ditch (F155, Fig. 5) is almost certainly the cropmarked ditch identified in the desk-based assessment (Rosenberg 1997a), to the north of the Parish Drain. This ditch was sealed by bank (F112) deposits to the south, which consisted of a redeposited buried soil and a capping of sand and gravel (1020), some of which has eroded into, and sealed, the latest re-cut of the ditch (F154). It would appear that the redeposited buried soil and the gravel capping forming the bank significantly reduced the rate of erosion to the buried soil beneath the bank. Deposits from ditch F155 also appear to have formed the upper fills of pits F146 and F143 to the south. A post-hole truncated by an east-west aligned gully (F153) may belong to this or an earlier phase

No features were found to be cut from above the level of the buried soil horizon to the north of ditch F155. To the south of this ditch this phase was represented by three pits (F143, F145 and F146, Plates 9 and 10). Two pits within the area of the bank both had been clay lined, again suggesting that they had at one time held water. Pit F145 produced culm nodes, indicating the presence of burnt straw. This pit also produced quantities of burnt stone which may, in turn, have been pot boilers used to heat water. These are typical domestic/settlement features which contained seeds of *Triticum dicoccum/spelta* (caryopses) and charcoal.

Interpretation

The upper surface of the buried soil (1002 and 1015) in the south end of Trench 4 was sealed by the gravel capping for the bank (1020, F112), to the south of ditch F155. Although sealed by a later alluviation, the bank (F112) was not completely masked by the alluvium (1001). Feature F106 may be the remains of a hollow into which alluvial clay settled. It may also indicate the presence of a bank to the east, which returns to the south of feature F106.

A good preservation of the buried soils was recorded within all trenches in Area 1, particularly beneath the upstanding banks. The burial of land surfaces of different periods allows the appraisal of landuse over relatively large areas. No features were identified at the horizon of the buried soils within the northern half of Area 1. It would appear that later features, cut from this horizon, are focused on an area of cropmarks to the south of the intersection of Trenches 3 and 4 and to the north of the Parish Drain. Of particular interest within this area are deposits to the south of the large, east-west aligned ditch (F155, Fig. 5), noted as a cropmark. Here the archaeology is well-preserved with a rare stratigraphic sequence, which holds greater potential considering the close proximity of environmental and waterlogged organic remains from the edge of the former fen to the south. This presents the potential for the recovery of insects and charred plant remains typical of the immediate environment and perhaps of the nearby human settlement.

5.2: Area 2 (Trench 5: Site O; Trenches 6-9: Site Q, Fig 1)

5.2.1: Objectives

Trenches 5 to 9 were located to the southeast of the Parish Drain. In all trenches the overburden was removed by mechanical excavator to expose the uppermost peat or buried soil horizon. Trenches 5, 6 and 8 were machined to a width of 6m, and Trenches 7 and 8 to a width of 3m. The machined surface was then inspected for archaeological features. Since all of the trenches in Area 2 were located within, or at the very edge of, the former Bronze Age fen, this inspection was primarily for the identification of possible waterlogged wood associated with post alignments. Once photographed and recorded, all trenches in Area 2 were re-machined to the upper horizon of the natural subsoil. The machined surface was then hand cleaned to reveal any archaeological features present. These were sampled by hand excavation to provide information concerning the survival and complexity of the fills, and to recover artifactual and ecofactual samples for analysis.

5.2.2: Trench 5 (Fig 6)

Description

An earlier evaluation in 1995 of an area within Site O, immediately to the south of the Parish Drain, identified the presence of Neolithic pits on the fen edge (Evans and Pryor 1995). Trench 5 was therefore located towards the southern extent of Site O to test the archaeological potential of this area within the former Bronze Age fen.

Trench 5 measured 50m in length and was machined for a width of 2m to a depth of 1.84m below the modern surface. At the natural ground surface the trench was hand-cleaned and photographed, but no archaeological features were recorded. The natural ground surface (2508) was sealed by a light grey-brown silty-clay, 0.03m in depth (2507). This was overlain by a light grey alluvium (2506), in turn sealed by a layer of grey-brown alluvium (2505). Above were layers of oxidised peat (2503 and 2504) becoming noticeably darker towards the base. This was sealed by the upper peat horizon (2502), exposed by initial machining. This was sealed by a layer of grey-brown alluvial clay (2501), 0.20m in depth, and topsoil (2500), measuring 0.18m in depth.

Fig. 6 shows the location of column samples taken in Trench 5 for pollen analysis, and the location of bulk samples (environmental samples A to P) every 0.10m for insect remains.

Interpretation

No features of archaeological interest were recorded in Trench 5. Monolith samples for pollen analysis and bulk samples for insect remains (Fig. 6) show a surprisingly good level of preservation, particularly samples from the degraded peats (2502 and 2503). However, these samples show that the area of Trench 5 was possibly open or slow-flowing water during the Bronze Age and Iron Age periods. This environmental

data cannot be cross-correlated with archaeological features or deposits. Sampling closer to the edges of the Bronze Age fen (at approximately the 1m contour), may provide environmental data which can be directly related to anthropogenic features within Area 1. At the Fengate Fourth Drove site in 1989 (French 1992b) small meandering channels were identified within the peat of the Flag Fen basin, particularly along the break of contour between the gravel terrace edge and the 'dome of the peat fen'. Stream channels within the break of contour are likely to have 'scoured out' any potential archaeological remains.

5.2.3: Trench 6 (Fig. 6)

Description

Trench 6 was aligned northwest-southeast, measured 50m in length and was machined to a depth of 1.58m and a width of 2m.

The depth of the natural subsoil in Trench 6 was determined between 0.81m and 0.93m AOD. No features were recorded at this horizon. The subsoil was sealed by an orange-brown clay (2038), which was overlain by a blue-grey alluvial clay (2037). Sealing layer 2037 was a dark brown silty clay (2036), possibly the formation of a buried soil. This was sealed by two layers of grey alluvial clay (2034 and 2035), sealed by a dark brown, oxidised fen peat (2033), exposed by first machining. No features were evident cutting this layer, which was overlain by an orange-brown, compact alluvial clay (2032), 0.31m in depth. Above was the topsoil, here measuring 0.39m in depth.

Interpretation

No features of archaeological interest were encountered in Trench 6 (Fig. 6), at the peat horizon or cutting the natural gravels. Geomorphological and pollen samples may provide data concerning fen-edge activity.

5.2.4: Trench 7 (Fig. 7)

Description

Trench 7 was aligned approximately east-west and measured 50m in length. The level of the natural subsoil was established at a depth of between 1.33m AOD (eastern end of trench) and 1.08m AOD (western end).

Towards the western end of the trench was an area of grey silty clay (2053), probably of natural origin. A ditch (F205), aligned northwest-southeast, was identified 12m from the western end of Trench 7. Ditch F205 was cut with a V-shaped profile and was 2.39m in width and 0.92m in depth. It was filled with a dark blue-grey silty-clay (2012) with charcoal, waterlogged wood, and sealed by a mottled orange-grey silty-clay (2011), 0.19m in depth. Above was a friable blue-grey silty-clay (2010). To the northeast was a layer of orange-brown silty-sand and gravel (2055), interpreted as a bank associated with the ditch. To the east was an area of grey silt (2054), possibly a

small pit or post-hole, to the south of which was the cut for a modern feature (not numbered, possibly trial pit 9, RE. No. C6440), which contained fragments of plastic within the fill. Other patches of silt (not illustrated) to the east of deposit 2054 proved to be natural in origin.

The natural ground surface at the eastern end of the trench was sealed by a layer of light yellow-brown compact clay (2057: not illustrated), 0.26m in depth, not evident at the western end of the trench. This was sealed by a blue-grey alluvial clay (2056), 0.29m in depth, which, in turn, was sealed by a blue-grey silty clay (2043, possible eroded buried soil), measuring 0.10m in depth and evident at the western end of Trench 7 for a distance of 18m. Overlying layers 2056 and 2043 was a compact, dark brown silty-clay (2042), which was sealed by a light brown, compact, alluvial clay (2041), the upper surface of which contained a lens of mixed gravel (2040). Above was the topsoil (2031), which measured 0.13m in depth.

The presence of alluvial layer 2057 at the eastern end of the trench, and the extent of the buried soil (2043) only within 18m of the western end, suggests Trench 7 was located on the very edge of the Bronze Age fen.

Interpretation

Trench 7 (Fig. 7) cuts across the extreme edge of the fen, at the break in slope of the natural first terrace gravels. A ditch (F205) with a bank (2055) on its northeastern edge was identified, aligned northwest-southeast. Although waterlogged, the environmental remains from the ditch were scant. This ditch was sealed by buried soils and, therefore, pre-dates the Late Bronze Age. The ditch and bank may form part of the Bronze Age field system/enclosures identified to the north (Pryor 1978, 1980). This ditch will almost certainly turn a right angle at the edge of the former Bronze Age fen, where waterlogged archaeological deposits favourable to the preservation of organic remains are likely to be encountered.

Several of the features tested by hand-excavation in Trench 7 were found to be of natural origin. Part of Area 2, to the south of the Parish Drain, lies above the 1.5/2m natural contour. This area has a high potential for the survival of archaeological remains. A good preservation of buried soils was recorded at the western end of Trench 7 only. This suggests some preservation of buried soils exists above the 2m contour of the natural gravels (Fig. 1).

5.2.5: Trench 8 (not illustrated in detail)

Description

Trench 8 was aligned north-south, and measured 50m in length and 3m in width.

The overburden was removed in Trench 8 to expose the upper horizon of the natural subsoil at a depth of 1.40m below ground level. Several features of natural origin were tested. These included two possible palaeochannels located at 15m and 32m from the southern end of the trench. The subsoil was sealed by a soft, grey alluvial

clay (2061), 0.50m in depth with yellow-grey clay lenses. This was sealed by a dark brown clay-silt (2060), 0.10m in depth, which was overlain by a dark grey alluvial clay (2003), 0.23m in depth, and peat (2002), measuring 0.28m in depth, exposed by initial machining, but no archaeological, or possible archaeological, features were evident at this horizon. Layer 2002 was overlain by a brown alluvial clay (2041) 0.30m in depth, sealed by topsoil (2039) measuring 0.05m in depth.

Finds

Plain wall sherds of Late Neolithic/Early Bronze Age pottery were found in context 2003.

Interpretation

Two north-west-south-east aligned palaeochannels were identified in Trench 8. Several other possible features were sampled, but none was found to be of archaeological interest.

5.2.6: Trench 9 (Fig. 7)

Description

Trench 9 measured 50m in length, 2m in width, and was orientated east-west. The natural subsoil was exposed at a depth of between 1.16m (western end of trench) and 1.34m (eastern end).

At the western end of Trench 9 were two linear deposits, both aligned north-south (F202 and F201). The easternmost (F202) measured approximately 1m in width and had an irregular profile, and may be natural in origin. It was filled with dark red-brown sand (2007). Ditch F201 measured approximately 1.70m in width and had gradually sloping sides and a flat base. It was filled by a mixed light orange-grey clay with sand and gravel (2006).

Located at a distance of 11m from the western end of Trench 9 was a sub-circular feature (F204) of possible natural origin. With a V-shaped profile, feature F204 was filled by a black silty clay (2009) measuring 0.40m in depth. To the east of feature F204 the natural ground surface dropped sharply (from 1.47m AOD, approximately 17m from the western end of the trench, to 1.03m AOD at 24m). On the edge of this slope, at a distance of 21m from the western end of the trench, was a well-defined pit or ditch terminal (F203), ovoid in plan, aligned northeast-southwest. Having a U-shaped profile, feature F203 had a waterlogged fill of dark brown silty-clay (2008). A palaeochannel was recorded approximately 34m from the western end of the trench.

None of these features produced any finds, but all are sealed by layer 2068, and lie between 1.0m and 1.5m AOD., perhaps suggesting an early origin. The sharp eastwards fall in the natural ground surface between 17m and 24m from the western end of the trench suggests the trench was located over a possible embankment, possibly part of the former fen edge.

The natural subsoil in this trench was sealed by a compact yellow clay (2068), 0.03m in depth, which, in turn, was sealed by grey alluvial clays (2048, 2047 and 2046) with a combined depth of 0.53m. These layers were sealed by a layer of oxidised fen peat (2045) which measured 0.22m in depth. The uppermost horizon of this layer was exposed by first machining to permit the identification of any features of archaeological, or possible archaeological, interest cut into this level, although, in the event, no such features were recorded. The peat (2045) was overlain by a brown alluvial clay (2039), 0.29m in depth, sealed by a thin layer of topsoil (2062), measuring 0.07m in depth.

Interpretation

Trench 9 straddled the break in contour of the natural gravels. The base of a possible ditch (F202) was identified in Trench 9, although this appeared to be poorly-defined and eroded. One further feature (F203) did not produce any finds, and although well sealed by later deposits, it is difficult to date. It may be possible that these features relate to those excavated further to the northwest (Evans 1992). However, the density and state of preservation of deposits in Trench 9 was not as good. Most of the possible features sampled proved to be of natural origin, and were generally poorly defined. One palaeochannel, aligned north-south, was noted towards the middle of the trench.

5.3: Area 3 (Trenches 10-12: Site Q)

5.3.1: Objectives

The overburden from all trenches in Area 3 (Trenches 10, 11 and 12) was removed to the upper surface of the buried soils, enabling features cut from this horizon to be recorded. This horizon was observed in a good state of preservation within Trench 12. In Trench 11 and the northern half of Trench 10, closer to the fringes of the fen, buried soils were not well-developed, being only a few centimetres deep in some parts, and non-existent in others. Buried soils were not observed within the southern half of Trench 10.

5.3.2: Trench 10

Description

Trench 10 measured 70m in length, 3m in width and was orientated north-south. The natural subsoil, a red sand and gravel (2069), was exposed at a depth of 0.75m below the surface of the modern ploughsoil. Located approximately 57m from the southern end of Trench 10 was a feature (F206), sub-circular in plan, cut with shallow sides and an irregular base. Measuring 0.85m in diameter, feature F206 was filled by a brown sandy-clay (2013). Located approximately 25m from the southern end of Trench 10 was a wide palaeochannel, sealed by a layer of oxidised peat. The palaeochannel would appear to lie along a contour of the gravel terrace which once formed the western fringes of the Flag Fen basin. The palaeochannel and pit F206

were sealed by a layer of brown alluvial clay (2001) measuring 0.30m in depth, which, in turn, was sealed by topsoil (2000) measuring 0.20m in depth.

Finds

A flint flake was found in feature F206 (2013).

Interpretation

One poorly-defined, shallow pit (F206) was excavated at the northern end of Trench 10, which may be Neolithic in origin. This may be contemporary to Neolithic deposits excavated to the north and northeast (Evans 1992). The distribution of features cutting the natural subsoil in Trench 10 was surprisingly sparse, considering the proximity of the excavated Neolithic site to the north. A palaeochannel was identified within the southern half of the trench, which may have scoured-out archaeological deposits here.

5.3.3: Trench 11 (Fig. 8)

Description

Trench 11 measured 100m long, 3m wide and was aligned east-west. The natural subsoil (2069) was exposed at a depth of 0.88m from the modern surface. Located towards the western end of Trench 11 (at the junction with Trench 12) was a linear band of grey silt (2049: unexcavated), aligned north-south and measuring 4m in width, which may be interpreted as a ditch. To the east was a further area of grey silt (2050: unexcavated), measuring 3.60m across, which may be interpreted as a pit. A circular patch of grey silt (2051: unexcavated), measuring 1.20m in diameter, was evident at a distance of 10m from the western end of the trench, and may also be interpreted as a pit. Further to the east was a shallow pit (F209), which was only partly recorded within the trench. It was filled by a grey clay-silt (2017).

To the east of feature F209 were two pits (F207 and F208), both circular in plan and measuring 1.80m in diameter. The southernmost (F207, Plate 12) appeared to have been vertically-sided, although it was not fully excavated. The lowest excavated fill (2020) consisted of a pale grey-brown silty-clay, which contained fragments of waterlogged wood. Above was a brown silty-clay (2019), in turn overlain by a dark grey-brown sandy-clay (2014). Feature F207 appears to have been cut by a shallower pit (F208) to the north. With steeply-sloping sides and a flat base, feature F208 measured 0.18m in depth and was filled by a single deposit of dark grey-brown sandy-clay (2015).

The natural subsoil in this trench was sealed by a grey-brown sandy clay (2003) measuring 0.24m in depth, which, in turn, was sealed by a layer of oxidised peat (2003), 0.13m in depth. A layer of brown alluvial clay (2001), measuring 0.29m in depth, was sealed by topsoil (2000), measuring 0.20m in depth.

Finds

A flint blade was found in feature F209 (2017), and a retouched flake was recovered from feature F208 (2015). A flint core was found in layer 2002, and flint flakes were found in features F209 (2017), F207 (2019) and F208 (2015).

Interpretation

No deposits of archaeological interest were encountered within the eastern half of Trench 11, suggesting a low density of archaeological remains within the eastern half of Area 3. It seems probable that further, more extensive, investigation would identify archaeological features and deposits in this area, adjoining the excavated features of Neolithic and Iron Age date recorded to the north (Evans 1992 and Pryor 1980 and 1984). The survival of the buried soils within the eastern half of Area 3 was also found to be poor, and in some parts non-existent, possibly due to soil erosion at the former fen edge.

5.3.4: Trench 12 (Fig. 8)

Description

Trench 12 measured 70m in length, 3m in width and was aligned north-south. The natural subsoil, a red sand and gravel (2069), was exposed at a depth of 0.55m below the surface of the modern ploughsoil.

Located towards the southern end of the trench was a ditch (F211), aligned northwest-southeast and measuring 1.55m in width. With a V-shaped profile, feature F211 was filled with grey-brown sandy clay (2021). To the north was a shallow circular post-hole (F212), measuring 0.11m in diameter and filled by a grey-brown silt (2022) to a depth of 0.22m. Further to the north was a further ditch (F217), cut on a similar alignment to ditch F211. Feature F217 was cut with a V-shaped profile and filled with light grey-brown sandy clay (2028 and 2029) with a combined depth of approximately 0.24m. These fills had been cut by a later ditch (F216) which measured approximately 0.49m in depth, and had a single fill of light grey-brown sandy clay with gravel (2026). This was cut by a much shallower, wider ditch (F215), measuring 2.70m in width and filled by a dark grey-brown sandy clay (2025). Features F215 and F216 are re-cuts of ditch F217.

Approximately 17m to the north of ditch F217 was another ditch (F213), aligned northeast-southwest with a width of 1.73m. Cut with steep sides and a flat base feature F213 was filled by mottled orange-brown sandy clay (2023). The orientation of this feature suggests that it may have formed a junction with ditch F217 to the west of the trench.

Towards the north of the trench were two semicircular areas of light grey sandy-clay (2052, a possible pit and 2070, a possible natural feature: both unexcavated), each measuring approximately 1.7m in diameter, although neither was fully exposed within the trench. To the north of the latter was a band of silt (2071: not excavated),

4m in width, which may be interpreted as a natural feature. The natural subsoil (2069) in Trench 12 was sealed by a grey-brown sandy-silt (2004) with a depth of 0.13m. This possible buried soil (2004) was overlain by a grey-brown alluvium (2001), 0.27m in depth, and topsoil (2000), here 0.15m in depth.

Finds

A flint microlith was found in context 2030, and a scraper in context 2004. Flint blades were found in contexts 2004 and 2030. Flint flakes were found in contexts 2004 and 2030, and in feature F216 (2026 and 2028). Plain sherds of Early Bronze Age pottery were found in feature F213 (2033).

Interpretation (Trenches 11-12)

The western half of Trench 11 and the southern half of Trench 12 (Fig. 8) contained three ditches (F213, F217 and F211). Although no datable pottery was recovered from this feature group, it is probable that it is associated with the Bronze Age and Iron Age field systems identified at the Cat's Water sub-site to the north (Pryor 1984, 25, F862). Three pits (F207 (waterlogged), F208 and F209) were also recorded.

The density of archaeological deposits within the western half of Area 3 (Fig. 2) may be less than could originally have been expected, especially considering the density of features excavated during the Cat's Water subsite excavation (Pryor 1984). It would appear that most of the Iron Age settlement was in fact excavated within the limits of the Cat's Water subsite excavation. A good preservation of buried soils was recorded within the western half of Area 3. No features were found to be cut from this horizon.

6.0: SPECIALIST REPORTS

6.1: Finds

6.1.1: Flint and other stone by Lynne Bevan

A total of 46 items of humanly-struck flint was recovered comprising: a microlith, three scrapers, five blades, three retouched flakes, two cores, and 32 unretouched flakes. The raw material used was of a good quality, varying in colour from light to dark grey, with some items of a yellowish brown flint with a 'cherty' appearance. Most pieces had been totally de-corticated and, when apparent, surviving cortex was of the thin, compacted variety commonly associated with pebble flint from secondary deposits as opposed to flint derived from mines.

TABLE 1: Flint Types by Feature/Context

Numbers recovered are in square brackets

T=trench

Microlith: T12, 2030.

Scrapers: T1, F110 (1025); Ditch C, F160 (1086); T12, 2004.

Blades: T4, 1015; T3, F116 (1027); T11, F209 (2017); T12, 2004; T12, 2030.

Retouched Flakes: T4, F143 (1046); T4, F134 (1055); T11, F208 (2015).

Cores: T1, 1003; T11, 2002.

Unretouched Flakes: All T, 1000; T1, F100 (1005); T1, F102 (1007); T3, F117 (1028); T3, F122 (1033); T4, F134 (1049)[3]; T2, F136 (1051); T2, F137 (1052); T4, F144 (1061); T4, F146 (1066); T4, F148 (1068); T4, F155 (1083); Ditch C, F160 (1086); T11, 2002; T12, 2004 [2]; T10, F206 (2013); T11, F209 (2017)[3]; T11, F207 (2019); T11, F208 (2015)[2]; T12, F216 (2026)[2]; T12, F216 (2028)[2]; T12, 2030 [3].

Discussion

The flint is present singly or in small groups of up to five items per feature/context with no evidence for any intensity or duration of on-site occupation during prehistory. Only one item, the Later Mesolithic microlith (T12, 2030), found with a blade and two flakes, is datable. A long end scraper (T12, cleaning layer 2004) made from yellowish-brown 'cherty' flint found with a blade and two flakes, has been skilfully made but this item, in common with most of the remaining, undated flint, is not associated with any prehistoric pottery for relative dating purposes. When possible, any potential chronological relationships between flint and pottery need to be investigated as part of the research for the published report.

Stone

No items of deliberately worked stone were recorded. However, several natural stones were found on the site, including ten complete and several fragmentary quartzite pebbles from the following features and contexts: T4, F110 (1017: half pebble); T4,

F144 (1061: seven pebble fragments); T4, F145 (1069) [3]; T4, F151 (1074)[2]; T4, F155 (1083)[2], and one half pebble; T4, F155 (1084)[3]. There is some evidence for burning and possible heat shattering among the pebbles which might have been used for heating water for cooking or washing purposes.

Other unworked stones consisted of two smaller fragments of sandstone (T4, F150 (1073)), and a large, roughly ovoid piece of micaceous sandstone with a naturally flat base (T3, F120 (1031)), and indentations at each side of the centre suggestive of wear incurred by the possible usage of the object as an anchor weight.

Wood and Charcoal

Fragments of waterlogged, unworked wood were recovered from the following features and contexts: T3, F117 (1028); T4, F155 (1083); T7, F205 (2012); T12, F216, (2028). Six fragments of charcoal and c.20 very small fragments were recovered from the following contexts: T1, F100 (1005); T3, F120 (1031)[20 fragments]; T4, F144 (1061)[3]; T4, F147 (1067)[2].

Metal finds

One small corroded copper alloy coin was recovered (T4, 1001), an identification of which was impossible due to the extent of surface degradation.

6.1.2: Pottery by Ann Woodward

Quantity, provenance and dating

A total of 252 sherds was recovered from eight out of the 12 evaluation trenches as follows: T1: 13 sherds; T2: 1; T3: 4; T4: 211; T8: 2; T10: 16; T11: 3; T12: 2. The pottery includes items belonging to varying periods as follows:

Neolithic	17 sherds
Late Neolithic/Early Bronze Age	3
Early Bronze Age	18
Late Bronze Age/Early Iron Age	11
Middle Iron Age	198
Indeterminate	5

Neolithic

Thin-walled sherds in a hard vesicular fabric came from Trench 4 (Phase 1), pit F148 (1068) and from Trench 10, F206 (2013). A simple out-turned rim sherd was represented in the Trench 10 assemblage.

Late Neolithic/Early Bronze Age

Plain wall sherds in laminated fabrics, often tempered with sparse angular flint inclusions, were found in Trench 2, post-hole F136 (1051) and Trench 8 (2003).

Early Bronze Age

In Trench 3, pit F120 (1031) contained a large unabrased rim sherd from a Collared Urn, decorated with a cord-impressed design which included filled triangle and hurdle motifs, and pit F129 (1041) produced one rim fragment and two wall sherds (non-joining) from a single Beaker vessel, decorated with comb-impressed geometric designs. Other plain sherds, all in grogged fabrics, were recovered from Trench 4 (Phase 1), pit F134 (1049 and 1055), and from Trench 12, F213 (2023). The assemblage of Collared Urn sherd, stone weight, clay weight and fired clay from feature F120 (Plate 3) in Trench 3 is of particular interest.

Late Bronze Age/Early Iron Age

A group of plain sherds, probably of this date, was found in Trench 1. The fabrics contained angular flint and also were vesicular to varying extents. The sherds came from pits F100 (1005, Plate 1), F110 (1017) and F113 (1024) and included three fragments of sharply angled neck and shoulder, plus one piece from near a base angle.

Middle Iron Age

The more substantial Middle Iron Age assemblages came from deposits in Trench 4, belonging to Phase 2 (115 sherds), particularly pits F150 (1072, including c.20% of a rim and 1073), c. 50% and c.25% of different rims) and F151 (1074). The fabrics were shell-tempered, vesicular or a combination of the two. Eight different rims and two base angles were represented. Two rims were decorated with impressions and two vessels were scored below the shoulder. Decorated rims occurred in both Phases 2 and 3, but some of the rim forms from Phase 3 appeared to be slightly later than those from Phase 2. A suggested date for the Phase 2/3 transition might be c. 350 BC.

Condition

With the exception of the Neolithic and indeterminate pottery, most of the material is unabrased, and sherds of large size occur in the Early Bronze Age, Late Bronze Age/Early Iron Age and Middle Iron Age contexts. No residues were noted.

Statement of potential

Detailed study of the prehistoric pottery will provide relative dating for features on the site, the opportunity to study processes of deposition, and evidence to assist in the functional analysis of site activities throughout the various periods represented. The Early Bronze Age and Late Bronze Age/Early Iron Age assemblages are of particular importance, and these, plus the Middle Iron Age material, will provide a significant supplement to the existing corpus of prehistoric pottery from the east Peterborough area.

Fired clay

Fifteen pieces of fired clay were recovered from pit F120 (1031) and post-hole T3, F122 (1033). A fired clay object was recovered also from pit F120. The only other fired clay was one fragment from T1, pit F110 (1021).

The fired clay from Trench 3 included some items with parts of perforations and/or wattle impressions, and some with finger-squeeze marks. Structural debris and potting clay may be represented.

The object from pit F120 (1031) is a cylindrical weight with a narrow, centrally-placed perforation. It appears to be made from a lump of glacial clay which has been lightly fired (Robert Ixer pers. comm.). This is an unusual object and its association with the stone weight and sherd of Collared Urn invites detailed consideration.

6.1.3: The animal bone by Andy Hammon

This report will briefly comment on the state of preservation, degree of fragmentation, species present and potential for further work.

Animal bone was collected from 19 features and contexts, all retrieved during hand excavation. Appendix 1 summarises each context by bone weight. The majority of bone was from features, particularly waterlogged contexts. Additionally, material was retrieved from buried soil surfaces, and from the bulk samples.

The animal bones were badly preserved, with poor cortical integrity, possibly obscuring any butchery marks and canine gnawing. No such marks were noted from the assemblage. The 'edges' of the bone fragments did not appear to be badly abraded, which suggests they were not from secondary deposition. Low levels of residuality would be beneficial to further research.

Fragmentation was extensive. Consequently this would mean a relatively low number of 'countable' bones using the system devised by Davis (1992) and Albarella and Davis (1994). For the same reason metrical analysis would be limited. No ageable mandibles were present in the assemblage, however, several loose teeth were recovered. The three major domesticates (cattle, sheep/goat and pig) were the only species represented. Obviously hand collection combined with a high degree of fragmentation results in a recovery bias favouring the larger mammals

Potential

Despite the high degree of fragmentation and exfoliation, the assemblage demonstrates a low level of residuality. The recovery bias favouring the larger species could be overcome in any further work on the site by implementing a comprehensive sampling strategy, which, would also aid the recovery of smaller bones and teeth. Bone from future excavations may provide sufficient material to allow interpretation of site-specific activity, and the results should provide a useful comparison with the substantial body of work already carried out (e.g. Pryor 1980, 1984).

6.2: Environmental and soil studies

6.2.1: The buried soils by Charles French

Introduction

Two series of samples were taken for micromorphological analysis (after Murphy 1986 and Bullock *et al* 1985) of the buried soils present in Trenches 4 and 6. Associated pollen profiles were taken in Trenches 5 and 6 (see Scaife below).

Trench 4 cut across a Mid Iron Age bank and ditch (F155) profile. A reasonably well preserved buried soil was present beneath about 0.4m of silty clay alluvial deposits throughout the length of the trench, as well as beneath the Iron Age bank. The soil profile immediately to the south of the bank exhibited the following stratigraphy :

<i>Depth below ground surface (m)</i>	<i>Description</i>
0-0.43	Greyish brown silty clay with large, irregular, blocky ped structure; alluvium
0.43-0.53	Fine-medium gravel mixed with greyish brown sandy loam, with orange oxidation mottling; subsoil and soil bank spread
0.53-0.84	Greyish brown silty clay loam and occasional flint gravel, with orange oxidation mottling; buried soil
0.84+	Sands and gravels of Nene First Terrace gravels

One profile consisting of three intact soil blocks was taken from the soil preserved beneath the bank spread for micromorphological analysis. This set of samples (CF/Profile 2, samples 1-3) was taken for comparison with the profiles examined from the adjacent Fengate Depot site immediately to the west (Evans 1992; French and Lewis 1995).

Trench 6 was situated within the margin of a small fenland embayment. Here a reduced buried soil was observed to dip southeastwards beneath thickening freshwater peat and minerogenic deposits. The profile exhibited the following stratigraphy :

<i>Depth below ground surface (m)</i>	<i>Description</i>
0-0.50	Greyish brown silty clay with large, irregular, blocky ped structure; alluvium
0.50-0.90	Brown desiccated peat
0.90-1.20	Greenish-grey organic silt

1.20-1.35	Brown/dark brown alternating laminae of detrital peat and silty clay alluvium
1.35-1.66	Greyish brown to greenish grey loamy sand/sandy loam; probable buried soil
1.66+	Sands and gravels of Nene First Terrace gravels

The probable buried soil at the base of the sequence was sampled for micromorphological analysis, and this soil and overlying peat sequence sampled for palynological analysis by Dr R Scaife (see Section 6.2.3 below).

The micromorphological results are summarised below, with the detailed descriptions in Appendix 2.

Results

Profile 2/Trench 4

In this section, the buried soil sequence comprised four horizons with indistinct or merging boundaries. The uppermost horizon (*c* 0.49-0.53m) was composed predominantly of a porous, sandy loam (*c* 60% of the total groundmass) with common, finely comminuted organic matter mixed throughout the fine groundmass, and a substantial illuvial input of unoriented, impure or silty clay (*c* 40% of the total groundmass). This organic soil material was poorly mixed with irregular zones of weakly oriented silty clay. It is suggested that this horizon represents a transitional zone between the base of the bank spread material and the disturbed upper part of the underlying organic, upper A horizon, intermixed with an alluvially-derived silty clay.

Beneath this was the upper surface of the *in situ* soil (*c* 0.53-0.57m). It was an apedal, homogeneous, sandy loam with frequent, finely comminuted organic matter and impure or dusty clay present throughout as either coatings of grains, integral within the groundmass, or as intercalations within the voids. There were a few small, irregular fragments of bone intermixed with the groundmass and a few amorphous iron-phosphatic concentrations within the voids. This material is indicative of upper A horizon material with minor anthropogenic and alluvial inputs. It also resembles the upcast bank material.

The next horizon below was a porous, homogeneous, sandy loam with few scattered fine gravel pebbles (*c* 0.59-0.67m). The fine fraction exhibits a 'pellety' microstructure. Finely comminuted organic matter, both amorphous and carbonised, was distributed throughout the fine groundmass, and the whole fabric was impregnated with amorphous sesquioxides (iron oxides and hydroxides). This represents A horizon material, possibly even the base of a turf, with its organic component severely depleted through oxidation and soil faunal mixing processes.

The basal horizon of the buried soil (*c* 0.71-0.83m) was composed of a similar fabric to that above, although there was abundant fine gravel throughout and strong

impregnation with amorphous sesquioxides. In addition, there were very minor amounts of micro-laminated pure or limpid clay towards the base of this horizon, and a few amorphous iron-phosphatic concentrations in the void space in the upper part of this horizon. These characteristics suggest that this represents an iron-cemented, rather poorly-developed B horizon of a brown earth (or Bws: after Avery 1980).

Profile 1/Trench 6

The upper two-thirds of the buried soil profile (*c* 1.35-1.55m) is a dense, homogeneous, well sorted, loamy sand dominated by very fine quartz sand with a minor dusty or impure clay component. The lower third of the profile is a mixture of relatively porous, loamy sand and fine flint gravel. Although the clay component is very minor (<5%), it is dominated by non-laminated, limpid or pure clay as thin coatings of the sand grains and within the groundmass. This type of clay suggests that the soil was once subject to the illuviation of pure clay under stable wooded conditions (Bullock and Murphy 1979; Fedoroff 1968), and the formation of an argillic horizon.

It is therefore suggested that the buried soil had once been a poorly developed argillic brown earth which was later subject to much leaching and the removal of fine material. In addition, the upper part of the profile has aggraded through the input of well sorted, dense fine sand, probably as a result of overbank flooding events. The deposition of minerogenic quartz sands was also observed in a similar fen-edge situation about 200 metres down-valley at the Fourth Drove sub-site (French 1992b). The greyish green colour of this soil profile observed during the archaeological assessment is the result of more recent waterlogging and anaerobic conditions of burial.

Discussion

The pre-Mid Iron Age buried soil in Trench 4 is a rather poorly developed brown earth typical of the area and subsoil type (Avery 1980; French 1992a and b). Nonetheless, it is very well preserved and not truncated. Despite some disturbance of its upper surface presumably associated with human activities, it certainly supported turf at some point prior to burial. The soil profile has been subject to hydromorphism, leading to much oxidation and destruction of its organic component and the secondary deposition of iron. The silty clay intercalations suggest that the soil has received some alluvial input through freshwater overbank flooding prior to burial.

The intermixing of fragments of alluvial overburden material, bank material and upper A horizon soil material may represent the construction and subsequent erosion of the bank itself. There could be the possibility of some other type of ground disturbance such as ploughing, but this cannot be proven on the existing micromorphological features alone.

There are some indications of anthropogenic activity on this soil, including the partial mixing of fabrics, the inclusion of numerous fine fragments of organic matter, minor

amounts of comminuted bone fragments and a few amorphous concentrations of iron and phosphates.

The palaeosol present at the base of the fen embayment sequence in Trench 6 was a weakly developed argillic brown earth. The accumulation of various freshwater deposits, probably in later prehistoric times (see Scaife Section 6.2.3 below), arrested this soil's development, and led to its severe leaching and transformation from a dry to seasonally wet, to completely waterlogged state.

Comparison with the other soil micromorphological analyses undertaken in the Fengate area (French 1980, 1984, 1989, 1990, 1991, 1992a, 1997; French and Lewis 1995) suggests that the dryland was dominated by a brown earths exhibiting a variety of stages of development. Since deforestation of the area prior to the development of the extensive prehistoric field systems in the Fengate area from the later Neolithic period onwards, the soil appears to have mainly supported pasture. There are hints as to some possible arable use, especially to the west at the Fengate Depot site in the soil micromorphological record (French and Lewis 1995) and by archaeological observations such as the ard marks at the Fengate Depot site (Evans 1992) and the spreading of the bank material to the south of the Iron Age ditch F155. Nonetheless, the best indications for later prehistoric agriculture occurring in the immediate vicinity is found in the pollen evidence from the Fengate Fourth Drove sub-site and Flag Fen (Scaife 1992, in press and below).

With respect to the development of the peat and alluvium infilled Flag Fen basin, rising base groundwater levels undoubtedly began to significantly affect the whole Fengate area to the south/southeast of Storey's Bar Road from the late 2nd millennium BC onwards (Pryor *et al* 1986; Pryor in press; French 1992a and b, in press). By the latter part of the 1st millennium BC, there was thin peat development more or less up to the southeastern boundary of the Iron Age Fengate Cat's Water sub-site (French 1992a, in press). Probably at about the same time, the embayment investigated by this evaluation was acting as a small area of peat fenland dominated by reeds and shallow open water environments. At certain times of the year, particularly in the late winter and early spring, the embayment would have held standing water, and was also occasionally subject to overbank flooding of the River Nene to the south.

Thus, these additional micromorphological investigations have corroborated and broadened the scope of previous micromorphological and palynological studies undertaken in the area. There is a mosaic of environments present, changing from dry to wet to damp, both throughout later prehistory and season by season.

6.2.2: Charred plant remains by Rob Scaife

Introduction

During excavation, the fills of gullies, ditches, post-holes and a buried soil were bulk sampled for subsequent analysis of charred plant remains. The primary aim was to recover cereal/crop remains and associated weeds from these archaeological features,

which would establish the crop taxa being cultivated in the local region and food preferences. Furthermore, this might provide information not hitherto obtained from earlier excavations at Fengate.

Methodology

Samples were prepared by BUFAU using a Siraf flotation tank. Flot was collected on a 300 micron sieve and carefully dried. Residues have been retained. Of the 44 environmental samples taken, 22 produced flot containing charcoal and the potential for included seeds. These samples have all been examined under a low power binocular microscope (Wild M3c) for evidence of cereal remains and weed seeds. Identification follows criteria given by Jacomet (1987).

Results

Features previously excavated by Dr. Francis Pryor and Dr. Charles French at Fengate produced surprisingly few plant remains (Pryor *pers. comm.*). This was in spite of comparable bulk flotation techniques. This similarly proved to be the case with the current analysis. However, a small number of grain caryopses was identified from some contexts. None of the samples contained any large quantity of weed seeds or cereal debris, that is, chaff from crop processing although one sample (from post-hole F113 in Trench 1) has yielded some identifiable chaff and grain. Taxa recorded comprise:

TABLE 2: Identified plant remains recovered

<i>Taxa</i>	<i>T, Feature (Context)</i>
Cereal Remains	
<i>Triticum dicoccum/spelta</i> (caryopses)	T4, F150 (1073); T4, F145 (1065); T4, 1015
<i>Triticum spelta</i> L. (glumes, spikelet forks)	T1, F113 (1024)
<i>Triticum dicoccum</i> Schubl. (glumes, spikelet forks)	T1, F113 (1024)
<i>Triticum aestivum</i> type (caryopses)	T1, F113 (1024)
cf. <i>Triticum</i> sp. (caryopses)	T1, F113 (1024)
Aven/Bromus (caryopses)	T1, F113 (1024)
<i>Hordeum vulgare</i> -hulled (caryopses)	T1, F113 (1024); T4, F145 (1065); T4, F151 (1074)
Indet. frags. (caryopses)	T1, F113 (1024); T4, F150 (1073)
Culm Nodes	T3, F120 (1031); T4, F145 (1065)
Radicles	T1, F113 (1024)
Palaea/lemma frags	T1, F113 (1024)
Seeds	
<i>Galium</i> sp.	T1, F113 (1024); T4, F155 (1084)
cf <i>Viola</i>	T1, F113 (1024)
<i>Prunus</i>	T1, F113 (1024)
<i>Rumex</i> sp.	T1, F113 (1024)
Unidentified	T1, F113 (1024)

The most abundant charred plant remain was of charcoal. This was most abundant in features F136 (T2), F117 (T3), F122 (T3), F110 (T4), F143 (T4), F144 (T4) and F145 (T4). Some include substantial fragments, possibly oak (large vessel structure).

Discussion

The absence of any substantial quantities of grain or chaff suggests that waste from crop processing (parching, threshing, sieving, winnowing) was not disposed of in these contexts. Those elements recovered even the more abundant remains in feature F113 (1024), are most probably background waste/residual remains.

T1, Feature F113 (1024)

This feature, a post-hole, was filled by sand and silt and also contained other occupation material (pottery, bone and charcoal). Pottery recovered suggests a Late-Bronze Age/Early Iron Age date. This was the only sample which also contained charred plant remains in sufficient quantity for meaningful data retrieval. The total flot was sorted and quantities (albeit small), of cereal grain/caryopses and chaff were recovered. These data are given in Table 3 below.

This context provided evidence for a number of cultivated cereal types, including grain of *Triticum* type (hexaploid bread wheat), *Triticum spelta* type (emmer and spelt wheat), *Hordeum* and *Avena/Bromus*. The presence of small quantities of chaff allows more specific identification, with glume bases and spikelet forks showing the presence of both *Triticum spelta* L. (spelt wheat) and *Triticum dicoccum* Schubl. (emmer wheat). Thus, evidence of cultivated crops comprises *Hordeum vulgare* L. (hulled barley), *Triticum spelta* L. (spelt wheat), *T. dicoccum* Schubl. (emmer wheat), *Triticum aestivum* type (bread wheat) and *Avena/Bromus* (oats/rye brome grass). With the exception of spelt wheat, this assemblage is not unusual for Bronze Age contexts (Helback 1952; Murphy 1977; Jones 1981; Scaife 1994). The presence of spelt is, however, somewhat unusual since this taxon is normally associated with the Iron Age and Romano-British periods. This record is one of an increasing, but still few, number of sites where spelt was apparently in cultivation.

Conclusion

Overall, the samples examined produced few identifiable plant remains. Only feature F113 context 1024 contained more than individual remains, and more detailed sorting and analysis of this fill illustrates that cultivated crops being cultivated included wheat types (hexaploid bread wheat, spelt and emmer) barley and possibly oat. Apart from confirming the identification of a small number of weed seeds, it is not envisaged that further analysis will produce much further information.

The charcoal, however, may prove to be of value for radiocarbon dating and also for determining the tree/shrub types growing in the landscape and available as a resource. Identification of the charcoal might also produce data on hedgerow structure.

TABLE 3: Charred seed remains from Feature F113 (1024)

Grain	
<i>Triticum aestivum</i> type	1
<i>Triticum spelta</i> type	10
cf. <i>Triticum</i>	8
<i>Hordeum</i>	4
cf. <i>Hordeum</i>	2
<i>Avena/Bromus</i>	2
Indet. whole caryopses	13
Indet caryopses fragments	16
Chaff	
<i>Triticum spelta</i> L. (glumes)	14
<i>Triticum spelta</i> L. (spikelet forks)	1
<i>Triticum dicoccum</i> (Schubl.) (glumes)	6
<i>Triticum dicoccum</i> (Schubl) (spikelet forks)	2
cf <i>Triticum dicoccum</i> (Schubl) (spikelet forks)	1
<i>Triticum</i> indet glumes	7
Lemma/Palca fragments	2
Radicles	2
Seeds	
<i>Galium</i> sp.	2
cf. <i>Viola</i>	1
<i>Rumex</i> sp.	1
cf. <i>Prunus</i>	2
Unidentified	3
Misc.	
Fungal sclerotia	5

6.2.3: Pollen by Rob Scaife

Introduction

Two monolith columns were obtained from the evaluation. The first (Column 1: Trench 6) comprises peat and sediment overlying a palaeosol and represents marginal deposition along the fen edge/terrestrial margin. This was sampled in conjunction with material for micromorphological analysis (Dr. C. French) of the buried soil. A second (Column 2 Trench 5) and longer profile was obtained from a possible pond or deeper water fen feature. Both sequences have been examined for sub-fossil pollen and spores. Pollen assessment has been carried out and preliminary pollen diagrams constructed.

Aims

Detailed environmental analysis, including radiocarbon dating and pollen analysis, has previously been carried out at Flag Fen and Fengate Power Station sites (Scaife 1992 and in press). Pollen assessment studies have also been undertaken along a number of fen edge sites, including earlier excavations at Third Drove by Cambridge Archaeological Unit (Scaife 1997). Thus, this study was expected to contribute additional information relating to the local environment; that is, the date of inundation by the expanding fen habitat and to the character of nearby terrestrial environment and prehistoric land use.

Methodology and techniques

Samples for pollen analysis were obtained directly from the open sections using monolith tins/trays. These were sub-sampled for pollen analysis in the laboratory of the Department of Geography, University of Southampton. Samples of 1ml were taken at 0.1m intervals. Standard procedures were used for the extraction of the sub-fossil pollen and spores (Moore and Webb 1978; Moore *et al.* 1991). These are given in more detail in Appendix 3. Pollen counts of *c.* 100 grains of dry land taxa and extant mire/aquatic and spores were counted. These data are presented in standard pollen diagram form (Appendices 4 and 5) with the pollen sum comprising dry-land pollen as a percentage of its sum, and mire and spores as percentages of these groups plus the total of dry-land taxa for each level.

Results

Well-preserved pollen was obtained from all samples except from the soil levels of Column 1 (0.7-0.50m) where the soil/sediments appear heavily oxidised and contained degraded and skewed pollen assemblages. The main vegetative characteristics of the two profiles is summarised as follows:

Column 1: Trench 6 - The Fen Edge and Old Land Surface.

A total of eight samples were analysed and results are presented in Appendix 4. Pollen was absent in the lowest level (0.7m) in the subsoil levels. Pollen in countable numbers was, however, obtained from the upper part of the palaeosol and was well preserved in the upper organic peat/sediments. Three local pollen assemblage zones are recognised. These are delimited as follows:

Zone 1 (0.6m - 0.45m). *Lactucaae-Poaceae-Pteridium aquilinum*. This represents the buried land surface/palaeosol. *Lactucaae* is dominant (60%) with *Poaceae* expanding (20%) with very substantial numbers of *Pteridium aquilinum* spores (80%). There are few trees and shrubs present but a small number of degraded *Tilia* grains is of note.

Zone 2 (0.45m - 0.25m) *Quercus-Alnus-Poaceae-Cyperaceae*. This zone marks the transition into fen. *Quercus* (20%) attains its highest percentages with *Alnus* (20%). *Poaceae* are dominant (to 40%). *Lactucaae* decline sharply from Zone 1. Cereal pollen

starts to become significant. The depositional habitat is represented by dominant Cyperaceae (30%) with *Typha angustifolia*/*Sparganium* type and *Alisma* type.

Zone 3 (0.25m - 0m) Poaceae-*Plantago lanceolata*-Cereal type. There is a reduction in tree pollen and expansion of herbs dominated by Poaceae and a range of ruderal/weeds. The latter includes *Chenopodium* type, *Plantago lanceolata*, *Plantago media/major* type and Asteraceae.

Inferred Vegetation

Pollen Zone 1, the palaeosol and pre-fen land surface, is skewed in favour of those grains with robust exines (pollen walls). Lactucae (dandelion types) and *Pteridium aquilinum* (bracken) are especially diagnostic and over-represented in harsh pollen preserving conditions. This pollen assemblage clearly represents residual pollen preserved in a truncated sub-soil (see Section 6.2.1 above). This soil was possibly one of high biological activity. *Tilia* (linden) was recorded in small numbers and may represent residual pollen from dominant, on-site lime woodland such as evidenced from many southern and east English sites during the later prehistoric period (Moore 1977) and locally in the basal soil underlying the main fen peats of the Flag Fen basin.

In pollen assemblage Zone 2, there is clear evidence for the incursion of ?wetland fen. This is also evident with the change to organic silt. Cyperaceae become dominant with other rooting fen taxa (*Typha/Sparganium*, *Alisma*, *Osmunda regalis*). Expansion of *Alnus* (alder) may be from colonisation along the fringes of the fen. This was more clearly evidenced at the Fengate Power Station site (Scaife in prep.). The increased importance of *Quercus* (oak) is seen as a taphonomic factor due to the better pollen preserving conditions of the upper, fen sediments. This similarly applies to the increased diversity of herb types which provides evidence of cereal cultivation in nearby areas.

Zone 3 represents the continued flooding of the fen edge. Aquatic macrophytes are present, including *Potamogeton* (pond weed), *Myriophyllum verticillatum* (water-milfoil). There is, however, important evidence for human activity, with arable crops and associated weeds and possibly pastoralism. It is not clear whether this is an increase in human activity or due to taphonomy, with pollen derived from long distance through fluvial transport.

Column 2: Trench 5 - The pond/lake

Deep freshwater lacustrine or slow-flowing river channel sediments were located in Trench 5 resting on a Quaternary gravel substrata. These sediments were overlain by typical, oxidised fen peat. Monolith samples were obtained which embraced all of these freshwater sediments and the basal part of the peat. Pollen was well preserved throughout and exhibited a diverse pollen flora. Results are presented in Appendices 4-5. Three tentative pollen assemblage zones have been designated. These are characterised as follows from the base of the profile upwards.

Zone 1: 1.10m - 0.55m *Quercus-Alnus-Corylus avellana* type- Poaceae-Cyperaceae. Values of *Quercus*, *Alnus* and *Corylus avellana* type are more important here than in subsequent zones. Poaceae are important (peaking to 55%) with autochthonous Cyperaceae (35%). Cereal type, *Plantago lanceolata*, *Ranunculus* type are more important in basal levels and may form a pollen assemblage sub-zone or additional zone with further/more detailed analysis.

Zone 2: 0.55m - 0.25m *Quercus-Poaceae-Cyperaceae.* *Alnus* and *Corylus avellana* type are of reduced importance. *Quercus* remains relatively important (20%) with Poaceae dominant (50%). *Fraxinus* is present in small but significant numbers. Cereal type (15%) with segetals, *Polygonum aviculare* type, *Polygonum persicaria* type and possibly *Sinapis* type present. Aquatic and rooting marginal plants are well represented, with *Typha angustifolia/Sparganium* and Cyperaceae being of note.

Zone 3: 0.25m - 0m *Poaceae-Cyperaceae-Typha angustifolia* type. There is some increase in *Alnus* but in general trees and shrubs are less well represented. Herbs are dominant with Poaceae and marsh taxa-Cyperaceae (35%) and *Typha angustifolia/Sparganium* type (15%) especially important.

Inferred Vegetation

The three suggested pollen zones are tentatively ascribed and require more detailed analysis for better designations to be made. Overall, the pollen spectra show a clear aquatic habitat with strong evidence of sedge fen and aquatic macrophytes and algal *Pediastrum* present. This was also verified by the sediment characteristics and the presence of freshwater mollusca.

Tree pollen percentages are low compared with sites investigated at nearby Flag Fen and Fengate Power Station. *Quercus* (oak) with some *Corylus* (hazel) may represent regional woodland. *Betula* (birch) and *Pinus* (pine) are likely to be from long distance transport/origin due to their anemophily. Expansion of *Fraxinus* (ash) from pollen Zone 2 upwards is important as this taxon is greatly under-represented in pollen spectra. It is an important secondary woodland element. Of particular note is the absence of *Tilia*. Again this formed an important constituent of the local woodland during the middle and much of the later Holocene. As with column 1 (above) its absence here suggests that these two pollen/sediment sequences post-date the 'lime decline' which although asynchronous, occurred predominately during the middle-late Bronze Age. This perhaps corresponds with the fact that cereal pollen is present in relatively large numbers throughout, suggesting that much of the local land had been cleared for agricultural purposes.

Column 2 is clearly thicker/deeper than Column 1 although both appear to be broadly contemporaneous (as far as can be judged from the pollen spectra). Furthermore, Column 2 (Trench 5) was through a lake/pond or ?slow moving stream. The extent of this feature is of interest since this may have been an important local water source and its extent is relevant to our understanding of the local palaeogeography.

Pollen analysis of nearby peats at Third Drove (Scaife 1997) produced data which correlate with results presented here. Pollen Zones 1 and 2 from this earlier analysis appear to correspond with zones 2 and 3 from Column 2 (Trench 5). However, the deeper sequence of the latter provides evidence of earlier phases of arable activity and the asynchronous flooding of the fen margins. These data contrast with pollen and radiocarbon evidence obtained in deeper fen peat profiles in the fen basin which show the importance of woodland (oak, hazel, lime, ash, willow and alder). Radiocarbon dating of the upper-most peat at Northey containing abundant oak, hazel and alder) produced an age of 2180±60BP (GU-5616). The contrast between the latter and Third Drove sites is thus marked, suggesting that the latter are of late prehistoric or historic age. Radiocarbon dating is essential to determine the temporal span of the two Third Drove sequences.

Conclusion

Preliminary pollen analysis has been carried out on two profiles exposed at Third Drove. Well-preserved pollen has been found in all samples except the degraded basal soil of Trench 6. Pollen spectra provide evidence of a largely open, agricultural landscape with strong evidence for arable cultivation in the local area. It is suggested that the profiles are of late prehistoric date, possibly late Bronze Age/Iron Age to Romano-British, that is after substantial woodland clearance for the agriculture noted had occurred. Pollen and sediments also clearly show the progressive change to fen conditions as the local/regional base levels were rising.

These peat/sediment sequences are an important source of environmental evidence due to the fact that they are at the interface of the fen proper and adjacent dry-land which was an area displaying strong archaeological evidence. Radiocarbon dating is required to date the profiles, correlate environmental events, and to place them within the local and regional chronology.

6.2.4: Insect remains by David Smith

Introduction

The early insect faunas of the area around Fengate, Peterborough are relatively under-explored. As far as the author knows only one previous sequence of samples has been examined. This was the work conducted by Robinson (1992) from deposits associated with the Flag Fen Platform. The material sampled at Third Drove presented an opportunity to supplement this work. Two areas of the site were sampled for insect remains.

The first of these was a profile through the possible river channel and subsequent pond in Trench 5. It was hoped that an examination of any insect remains at this location may provide information on the past environmental conditions in the area, and in particular to:

- elucidate the local environment around the area sampled.
- determine if there was any evidence from the insects present for nature of the past land-use by humans in the area.

- determine if the water table, or water conditions, have changed during the deposition of this material.
- establish if there are any insects present which might suggest the nature of the nearby human occupation to the west of the fen edge.

The second was a single sample from feature F207, an Iron Age pit in Trench 11. This represents the only waterlogged feature to the west of the fen edge. It was hoped that an examination of the insect fauna contained within this sample might suggest the nature of land-use and perhaps occupation at this location.

Methodology

The bulk samples from Trench 5 were taken as a continuous column of 10 cm thick slices of material and the sample from Trench 11 was taken as a single 'spot' sample. The samples to be examined were selected on the criteria that all the main types of material encountered in the section would be examined. It was also hoped that this would co-ordinate with any zones identified from the pollen analysis.

The samples were processed using the standard method of paraffin flotation as outlined in Kenward *et al.* (1980). This paraffin flot was then sorted under a binocular microscope. The faunas present were accessed using the system for 'scanning' faunas as outlined by Kenward *et al.* (1985). Each sample was then briefly scanned for the purpose of this assessment.

The insect taxa recovered are listed in Appendix 6. The taxonomy used follows Lucht (1987).

Trench 5, Samples A, B and D

These three samples were from contexts 2506 and 2505 in the lower part of the section. All consisted of a grey clay with some sand and small stones. They appear to equate to Scaife's Pollen Zone 1.

The faunas produced are well preserved but rather small in size. The majority of the species present are water beetles, such as *Colymbetes fuscus* and species of *Ochthebius* and *Noterus*. These are indicative of slow flowing, fresh water sometimes with standing vegetation. The elmid 'riffle beetles' are usually associated with fast-flowing waters, but the *Oulimnius* species seen here will tolerate slower and silty conditions.

Several species suggest that these waters may have been covered with floating vegetation. The weevils *Tanysphyrus lemnae* and *Notaris acridulus* feed on *Lemna* duckweeds and *Glyceria* float grasses respectively.

Sample H

This sample was from the alluvium in context 2504. This roughly equates to Scaife's pollen zone 2.

This sample produced an essentially similar fauna to those from samples A, B and D. However, the *Oulimnius* elmid is no longer present, perhaps suggesting a slowing in water flow or that the channel became less active. There is a growing appearance of taxa such as *Donacia* and *Plateumaris* species which feed waterside sedges and rushes.

Samples K and M.

These two samples are from the peat at the top of the section from Trench 5. Despite appearing to have suffered some degree of desiccation, both produced relatively large and well-preserved insect faunas.

A similar range of water beetles to those seen above suggests the presence of slow flowing and perhaps stagnant waters. However, it is clear from the considerable number of plant feeding beetles present that there is the development of a thick bed of waterside vegetation. In particular, *Plateumaris braccata* and *P. sericea* feed on *Phragmites* water reeds and sedges.

The wider landscape

In terms of attempting to reconstruct the landscape surrounding this channel, and the later pool, these insect faunas are rather uninformative. It seems that the fauna is derived from directly adjacent to the sampling location rather than from the surrounding landscape or settlements.

However, there are a few hints which would appear to confirm the cleared farmed landscape suggested by Scaife. There are no species of insects which are normally associated with the presence of woodland. In addition, there are numbers of *Aphodius*, *Onthophagus* and *Geotrupes* 'dung beetles' throughout the section which may suggest the presence of local pasture.

Conclusion

Examination of the insects from Trench 5 indicates that the preservation of insect remains in this part of Fengate is exceptional. The insect faunas clearly show the development of a dense fresh water reed bed as the local water conditions changed.

However, the insects recovered are essentially local to the past channel / pool features sampled. As such they have limited potential to provide directly interpretable information on the habitation conditions in the local settlements or the surrounding landscape.

Trench 11, Sample 40

The single sample of material from pit F207 in Trench 11 produced a small, eroded, and rather damaged collection of insect fragments. The few insects that are present suggest that this feature was probably surrounded by grassland and pasture. This is particularly true of the *Onthophagus* and *Aphodius* dung beetles which are both

associated with the dung of herbivores in open grassland. The small weevil *Gymnetron pascuorum* is also a common inhabitant of grassland and pasture, since it feeds on lancelet plantain (*Plantago lanceolata*).

There are no indications for the presence of nearby occupation, or the dumping of domestic material within this feature. If this was the case, one would expect to find insects present which appear to be common inhabitants of archaeological settlements (e.g. Hall and Kenward 1990, Kenward and Hall 1996, Robinson 1979). This suggests that the majority of the fill of the pit was derived from the area of grassland which surrounded it, perhaps by surface run-off and infilling.

7.0: DISCUSSION by Francis Pryor

7.1: Potential

The purpose of this brief overview is to assess the results of the evaluation in the light of previous work in the area and region.

The area has been the subject of nearly continuous study since the first report was published by Abbott and Smith (1910). Research was essentially piecemeal, however, until the Royal Commission on Historical Monuments (England) published its survey of land within the Designated Area of Peterborough New Town (RCHM 1969). This synthesis came to the conclusion that in essence the area is one enormous, multi-period archaeological site (RCHM 1969, 3). Subsequent study by the present author and others has mainly been concerned with environmental reconstruction and chronological definition, which have been the principal means whereby the complex succession of ancient landscapes has become more clearly understood. The present study has undoubtedly made a most important contribution to this research.

The area is archaeologically important for a number of reasons. First, preservation is first-rate. The ground water is alkaline and bone can survive well; on the other hand, conditions for the survival of pollen, macrobotanical and insect remains are also good. Alluvium has preserved large areas of palaeosols intact. Further, modern plough-damage has been remarkably slight, as the area went out of intensive arable in the late 1960s, well before the adoption of pan-busting and other deeply invasive techniques of modern farming. The second reason for the area's importance is simple: throughout later prehistory and into the Roman period people chose to live and farm there, and in considerable numbers. Finally, the archaeological features that are present have remained more or less undisturbed by later occupation. This can be attributed to the onset of alluviation and generally wetter ground conditions throughout Fengate, from the Third Century AD and later.

The presence of fenland, in the form of the Flag Fen basin, immediately southeast of the present sites, doubtless provided an important focus for settlement in the past. Depending on their state or condition, the Fens would have provided communities living on the dryland of the Fen-edge with abundant sources of grazing, hay, peat, wood, timber, salt, fish, wildfowl and other sources of winter protein. The intensity of

settlement along the slightly higher gravel terrace of Fengate may reflect the fact that this was the closest flood-free land to the open fen.

During the major research project of the 1970s (Pryor 1974; 1978; 1980; 1984) attention was generally focused on land above the 2m contour. Much of this land has been built on and developers are now turning their attention to lower-lying ground. These more recent developments have allowed archaeologists to examine archaeological contexts at the wetland/dryland interface and to characterise the natural Fen-edge (eg Pryor et al. 1992). Again, the present study has made an important contribution to this continuing research.

7.2: Implications of the nature of the fen-edge

Prior to the Power Station excavations of 1989, the edge of what Dr French has defined as 'the area of encroaching fen' (French in Pryor, forthcoming), had not been closely examined. At the Power Station site the gradient of the fen-edge was very gradual indeed - falling one metre in about a hundred. The area cleared was too small to be able to characterise the nature of the fen margin with any precision, but it seemed to be gently sloping and even - quite distinct from the other, Northey, side of the Flag Fen basin which was steeper and more irregular, with clearly defined 'bays' or 'inlets'. A relict, Pleistocene, stream channel skirted the edge of the terrace gravel and there was evidence to suggest that this stream still flowed in Bronze Age times, perhaps during the wetter months of winter.

The trenches of Area 2 have clearly defined the nature of the underlying Neolithic and Bronze Age fen-edge. They show it to be very much more irregular than the Power Station excavations had led us to believe. In places the slope of the gravel subsoil was steep - especially in Trench 9 and towards the southern end of Trench 10. The edge of the gravel subsoil was particularly steeply shelving at the northern end of Area 2, close by the Cambridge Archaeological Unit 1997 excavations (Fig. 1).

Perhaps the most striking feature of the buried land surface was the 'inlet' defined roughly by the 2m contour, immediately northeast of the Fenlake Business Centre (Fig. 1). This 'inlet' may have been produced by a stream which was actively flowing in later prehistory, but this seems unlikely; instead we may perhaps suppose it was eroded by a succession of Pleistocene or early Flandrian watercourses, of which the peaty palaeochannels of Trench 8 are examples.

The undulating and varied fen-edge in this area would have provided an environment of great potential in the Neolithic period, with excellent opportunities for fishing and wildfowling. In Holland, a closely similar undulating environment in the Rhine/Meuse estuary was shown to be very rich in evidence for Neolithic and earliest Bronze Age settlement (Louwe Kooijmans 1974). It is therefore of considerable interest that the CAU earlier Neolithic mortuary structure was found at the very edge of the 'inlet' just described. Clearly the land around the 2m contour in Areas 2 and 3 must have considerable potential.

The smaller portion of Area 2 south of Third Drove contrasts with that to the north. The slope of the edge is steeper, but it is also well-defined and more regular. Trench 5 indicated that there were no buried 'islands' in this area. A clearly-defined edge to the wetland was important to the arable and livestock farmers of the Bronze and Iron Ages who further formalised the boundary with a substantial linear ditches (shown as a cropmark in Fig. 1; Trench 4: F155).

To sum up: it is beginning to be evident that the diverse and varied nature of the fen-edge at Fengate may have been an attraction in its own right. The present project has indicated that the different character of the fen-edge in Area 2 may in part have been responsible for the different types and periods of archaeological remains observed in the vicinity. There is a danger, of course, of being deterministic: it is suggested that ancient communities were attracted to the area by different landforms and doubtless by other, purely extraneous, factors too. The landforms did not of themselves determine who settled in the area, and/or when. But they may well have played a major part in the relevant prehistoric decision-making processes. Whatever else is done, any future work must address these new issues.

7.3: Conclusion

This section considers specific, period-based topics.

Mesolithic

Apart from a few flints found by workmen and reported to Wyman Abbott at the turn of the Century, there has been little evidence for Mesolithic occupation at Fengate. One microlith does not comprise an assemblage, let alone a presence, but the buried 'inlet' discussed above would be ideally suited to Mesolithic occupation (for a closely similar local parallel see French and Pryor 1993: Crowtree Farm).

Earlier Neolithic

An important linear distribution of earlier Neolithic sites would appear to terminate immediately north of Area 2, with the discovery in 1996 of the mortuary structure excavated by the Cambridge Archaeological Unit. Other elements included a second mortuary structure, a multiple burial and a ditched mortuary enclosure (Pryor 1993, fig. 100). It is difficult to name a comparable group of earlier Neolithic sites elsewhere in England. It would seem probable that these sites were orientated on the 'inlet' discussed above.

Neolithic/Bronze Age

A most important and unexpected discovery was the scatter of pits, post-holes and related features in Trenches 1-4. Finds indicate that these features can be dated, in round figures, to the entirety of the second millennium BC. The presence of a quernstone and a fired clay weight within pits also hints at non-domestic or ritual activity; similar deposits were found at the nearby causewayed enclosure of Etton (Pryor 1998).

Settlement of this period is most unusual in eastern England. The presence of a buried soil and the fact that the land in question was under pasture until recently suggest excellent preservation. It is possible that the pits found in Area 1 are a contemporary and later development of the Grooved Ware settlement of the Storey's Bar Road sub-site nearby (Pryor 1978). If so, this would probably be one of the largest (and also the best preserved) of the known Late Neolithic to Early Bronze Age settlements in England. It is of undoubted national importance.

The discovery of pottery and non-linear features suggests that elements of this settlement could have lasted until Late Bronze Age times. These indications of the settlement's longevity (later Neolithic-Late Bronze Age) are extraordinary.

Bronze Age

Three Bronze Age ditches - and indications of at least one bank - were found in Trenches 3 and 4. It has been suggested that these may have formed a droveway which in turn formed part of the larger Fengate Bronze Age field system. This suggestion seems entirely reasonable. It is also possible that the pits and post-holes mentioned in the previous section could have been associated with the early use of the droveway. A similar, although less well-preserved, association between non-linear features, which produced Collared Urn sherds, and ditched droveways was observed at the Newark Road sub-site (Pryor 1980, eg fig. 59).

The precise date of the origin of the Fengate ditched field system is still reliably to be established and Area 1, with its excellent preservation, is probably the only place left in Fengate where this may be achieved.

Area 3 provided clear evidence that ditches 1 and 2 of the Fengate system are also aligned on the 'inlet' north of the Fenlake Business Centre. It is very possible that waterlogged material directly relating to the droveway will be found in low-lying deposits there. A post alignment is possible, but not probable, as no posts were observed in the Parish Drain. It is more likely that a staithe or landing stage, similar perhaps to that found at Runnymede Bridge (Needham 1991) will be encountered; a gravel-built platform of probable early Iron Age date was found at the Power Station in 1989 in closely comparable circumstances: directly at the point where a Bronze Age droveway met the fen (Pryor forthcoming).

Iron Age

Results from Area 3 satisfactorily proved that the Cat's Water Iron Age settlement did not extend far beyond the original open-area excavations (Pryor 1984).

The main new information concerns the low-lying settlement of Area 1, Trench 4. Clearly this complex of mainly Middle and Late Iron Age features forms part of the same settlement as that excavated in 1992 by CAU (Evans 1992). The CAU evaluation revealed two stratified Iron Age phases that could reliably be distinguished (Kasia Gdaniec *pers. comm.*). The present project has been able to reveal four. Hand excavation could most probably reveal many more (Richard Cuttler *pers. comm.*). The

important point to note is that it is a stratified, undisturbed Iron Age settlement. Stratification on Iron Age sites is extremely rare; for example, the Hadenham Upper Delphs (Evans and Hodder 1987-88), or beneath the ramparts at Danebury (Cunliffe 1984). Although the nearby Parish Drain will have affected waterlogged deposits in its vicinity, the presence of clay-rich fills in deeper features suggests that organic material may confidently be anticipated (French and Taylor 1985). Moreover, evidence from the Cambridge Archaeological Unit excavations of 1992 and the present project would suggest that the Iron Age levels in the southeastern portion of Area 1 have not been significantly disturbed by Romano-British activity, as was the case at Cat's Water (Pryor 1984).

8.0: DEPOSIT MODEL (Fig. 9)

This section provides a deposit model of anticipated archaeological potential of Sites O and Q based on the results of this evaluation, an earlier evaluation within Area 2 (Evans and Pryor 1995), and geotechnical works. A model of the contours or depth of the natural First Terrace gravels provides a preliminary indication of land use during different periods of prehistory.

8.1: Zone 1, Areas 1 and 2

No archaeological features were found to be cutting the buried soil horizon (1002). However, given the intensity of archaeological deposits dating to the Iron Age within the Fengate area it seems likely that some archaeological features may be encountered. A high density of archaeological features and deposits was found to be cutting the natural gravels in all trenches (1 to 4). This area lies well above the 2m contour (Fig. 1) and it therefore seems likely that an equivalent density of archaeological activity may be encountered across the remainder of Zone 1.

Archaeological deposits were also found to be cutting the natural subsoil within Area 2, to the north of Third Drove. Again, these were specifically above the 2m contour of the natural gravels, and a similar density of deposits must be expected.

8.2: Zone 2, Areas 1 and 2

A stratified sequence of prehistoric deposits was identified within this zone. This was partly due to the presence of a bank (F112) running across the northern edge of this zone. To the north of this bank (F112) was an Iron Age ditch (F155) which formerly ran along the edge of the fen. This ditch (F155) is associated with the bank, and can be traced as a cropmark (Fig. 1). Deposits were found to be cut from the level of the natural gravels and from several different levels within the Bronze Age buried soils. If the bank is present along the total extent of the cropmark, then a similar density of archaeological deposits may be encountered within the remainder of Zone 2.

8.3: Zone 3, Area 2

The buried soils within Zone 3 were found to have been eroded. Several archaeological features were identified within this Zone. These were cut from the level of the natural gravels and demonstrated a high potential for the presence of features containing waterlogged deposits dating to the Bronze/Iron Age.

8.4: Zone 4, Area 2

A well-preserved buried soil was not evidenced within Zone 4. The presence of Neolithic remains within this zone was recorded in 1995 (Evans and Pryor 1995). However, the environmental evidence suggests that the area between the 1m and 2m contours provides the greatest potential for site-specific environmental sampling. Stratified environmental remains within this area potentially relate directly to archaeological activity within Zones 1, 2, 3,4 and 7. Paleochannels, however, may have scoured-out some of the archaeological deposits within Zone 4, and would not provide site specific environmental remains.

8.5: Zone 5, Area 2

Although a deeply stratified sequence of alluvial silts and peats were recorded in Zone 5, the potential for the presence of archaeological deposits is considered to be low, since most of this area lies below the 1m contour of the natural gravels. The presence of a second post alignment similar to that excavated at Flag Fen is unlikely since this would have been observed within the Cat's Water to the southeast (Fig. 1). Given the density of archaeological activity within Fengate, however, the presence of waterlogged remains should not be discounted.

8.6: Zone 6, Area 3

The area of Zone 6 would appear to have been an inlet in later prehistory, and may have been the focus for fen edge activity, such as a landing stage. Both Bronze Age and Iron Age ditches terminate within this zone, and the potential for waterlogged deposits within Zone 6 must be high.

8.7: Zone 7, Area 3

It would appear that the full extent of the Cat's Water settlement has now been defined (Pryor 1984), and a medium-low density of archaeological deposits was recorded within Zone 7. No features were found to cut the buried soils, which were found to be particularly degraded towards the southern extent of the zone. A low density of features cutting the buried soil may, however, be encountered within the northern half of Zone 7. All archaeological features were found to be cut from the level of the natural gravels. It seems likely that an isolated system of ditches and pits may be encountered within this zone.

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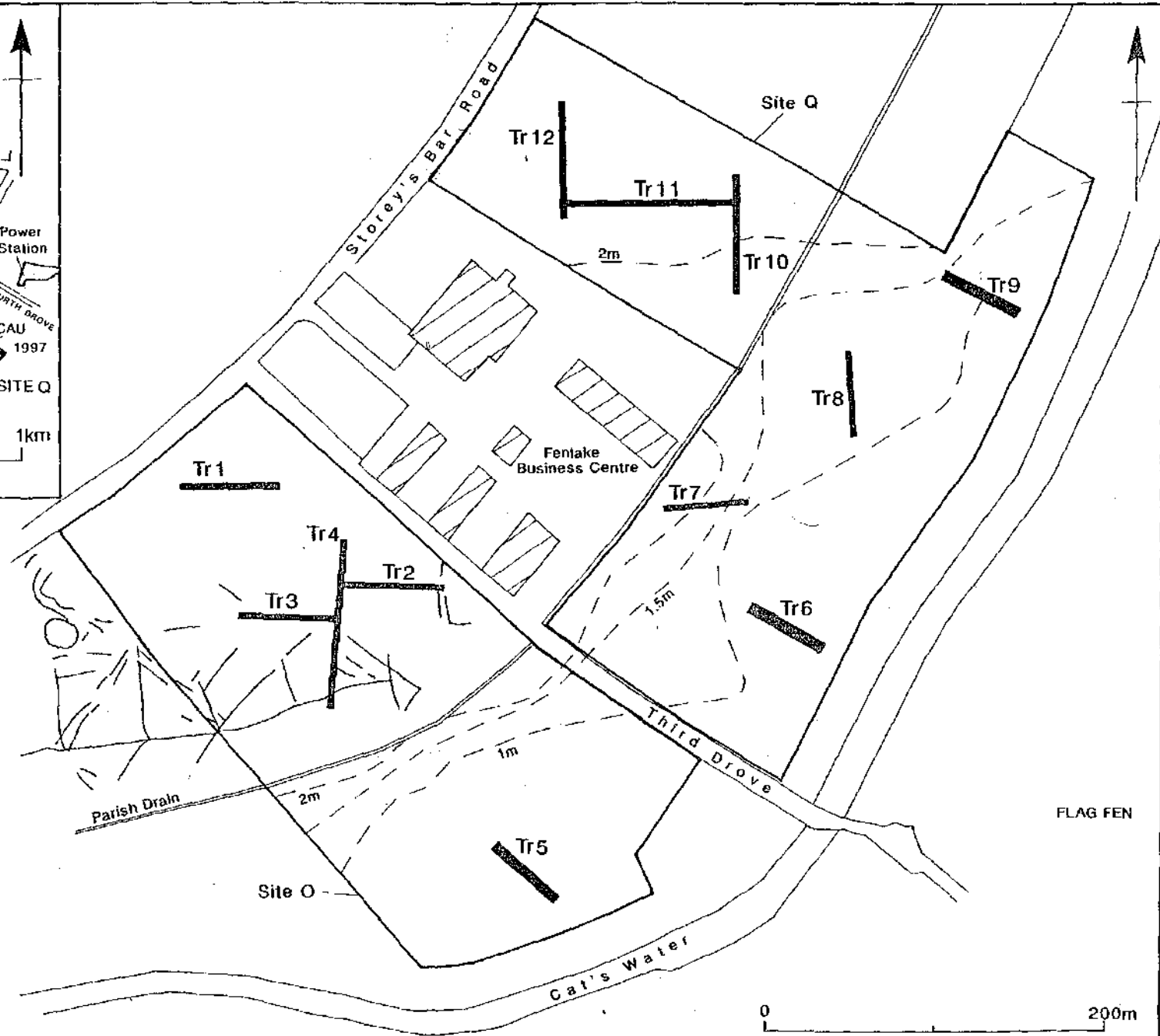
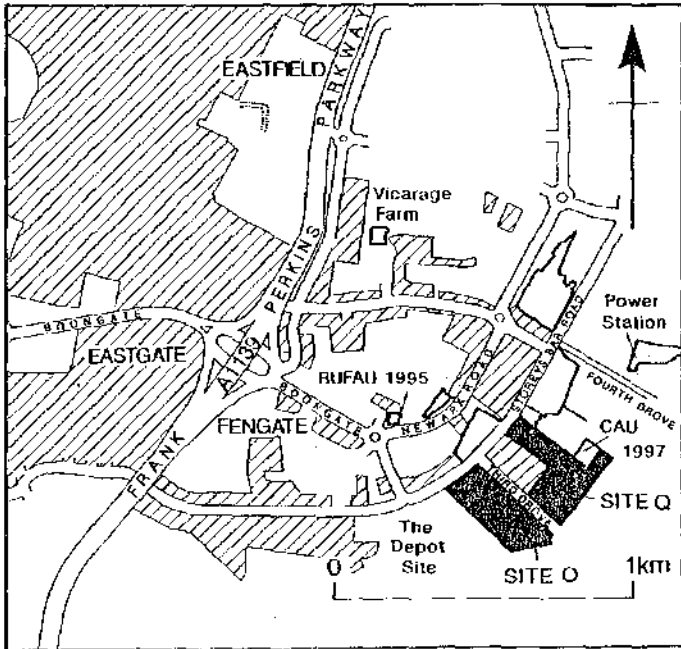
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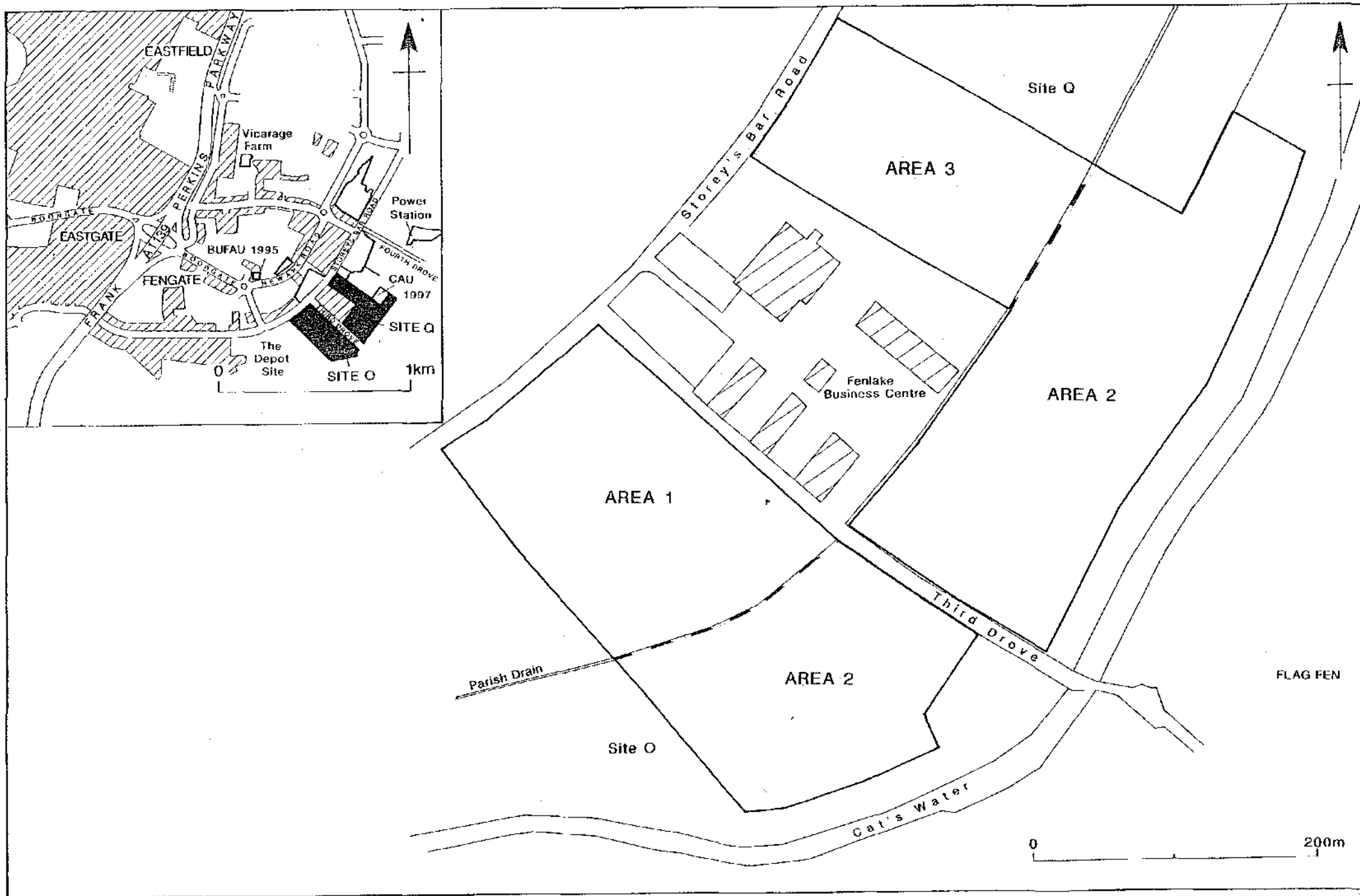


Fig 2

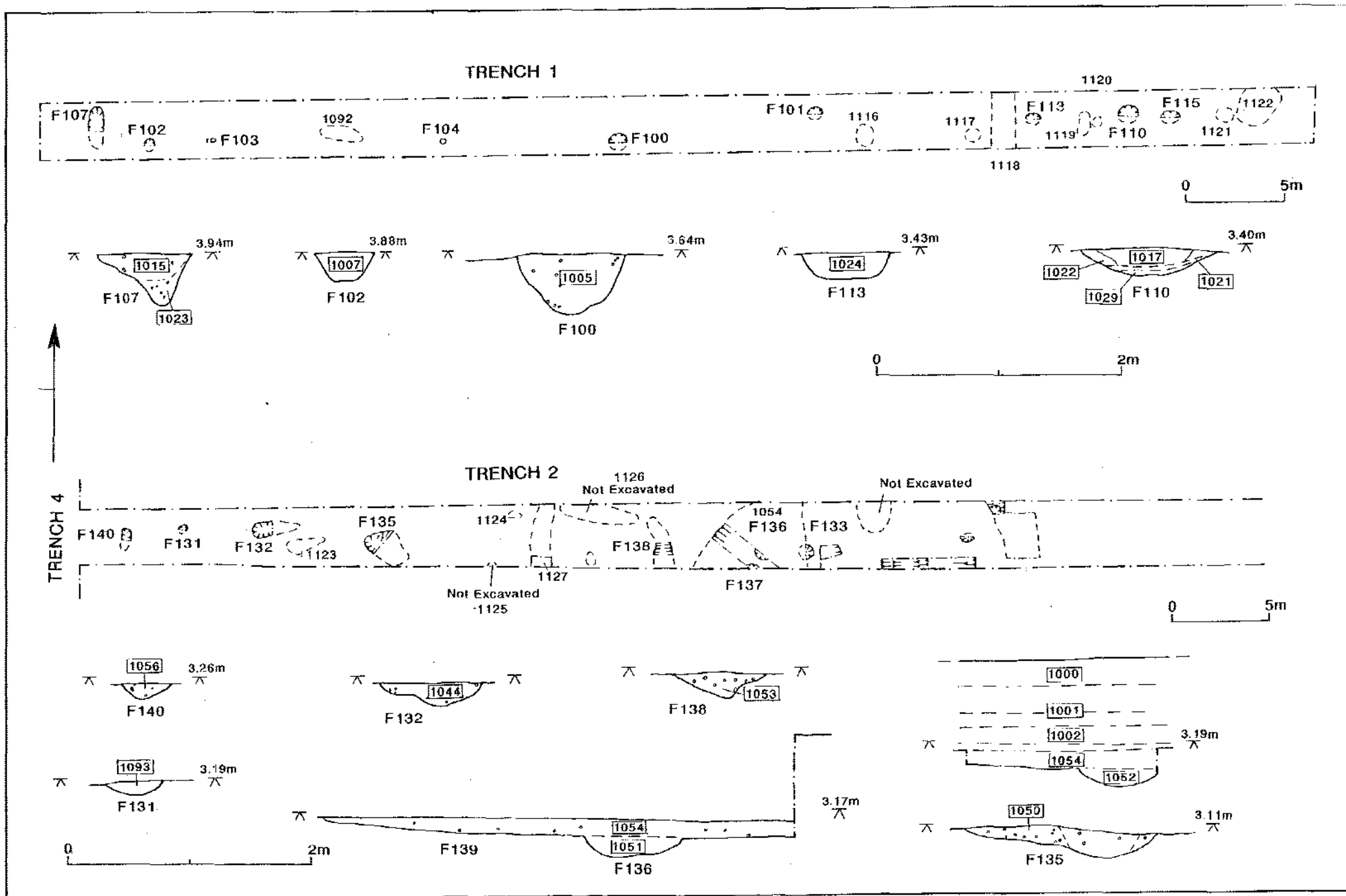


Fig.3

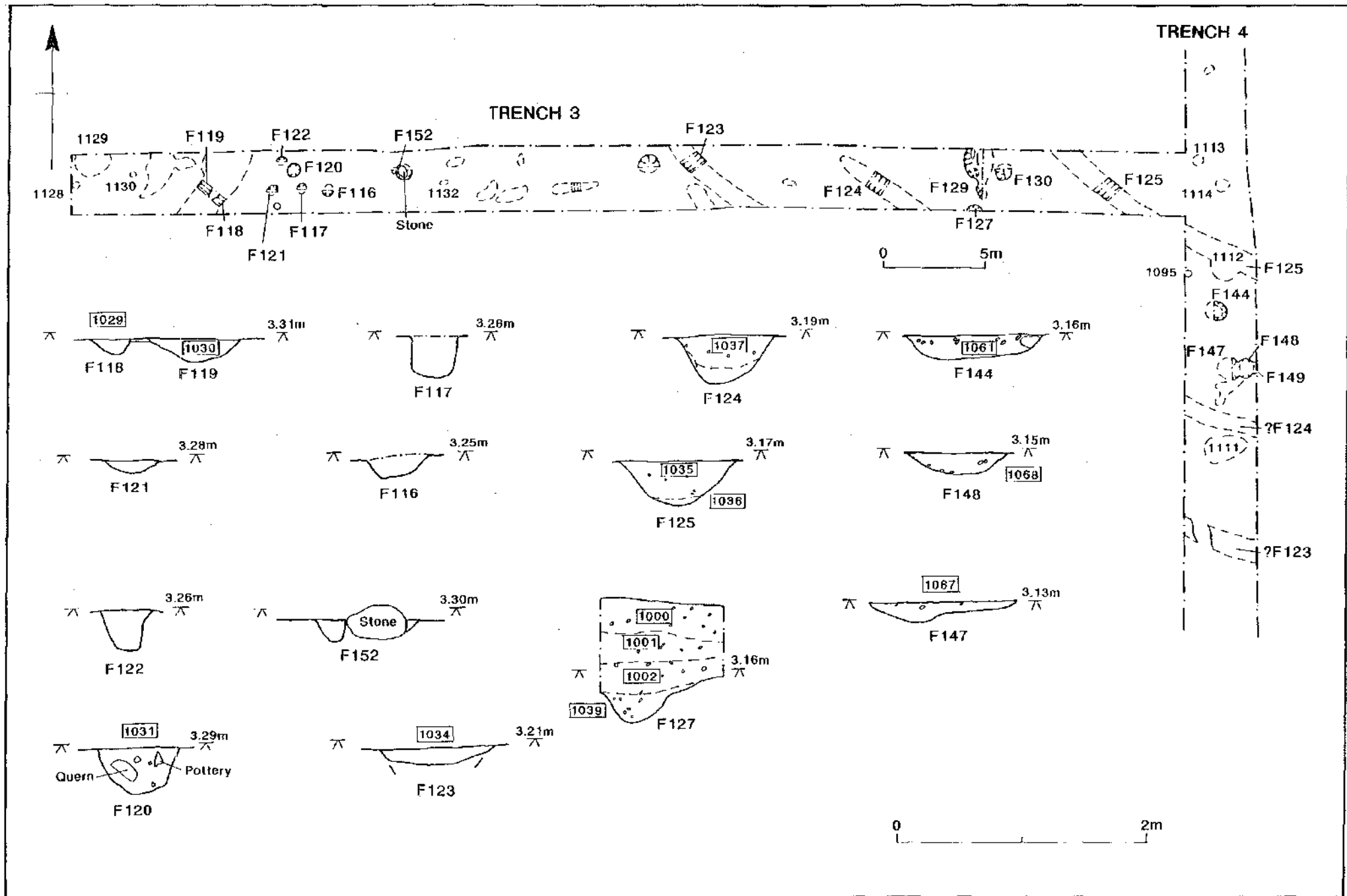
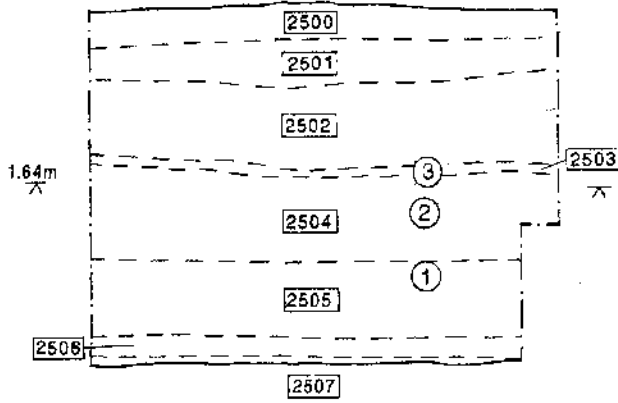


Fig.4

TRENCH 5

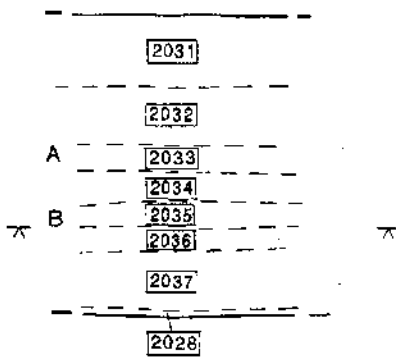


- 2500 Topsoil
- 2501 Silty-clay alluvium
- 2502 Peat
- 2503 Black peat/transitional layer
- 2504 Mid grey, silty alluvial clay with oxidised silt floccs
- 2505 Grey-brown, silty alluvial clay with waterlogged wood fragments
- 2506 Light grey silty clay alluvium
- 2507 Buried soil/interface with natural ground surface

- 1 Top of pollen monolith profile, Tin 1
- 2 Top of pollen monolith profile, Tin 2
- 3 Top of pollen monolith profile, Tin 3

A-P Bulk samples at 10cm.

TRENCH 6



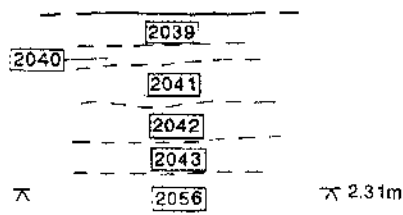
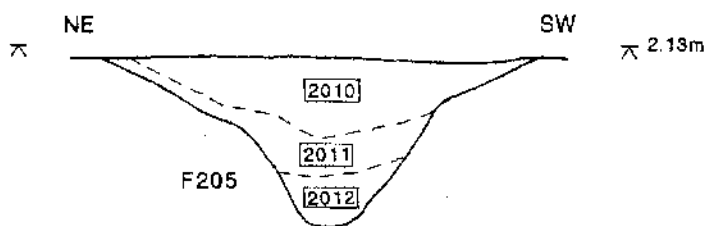
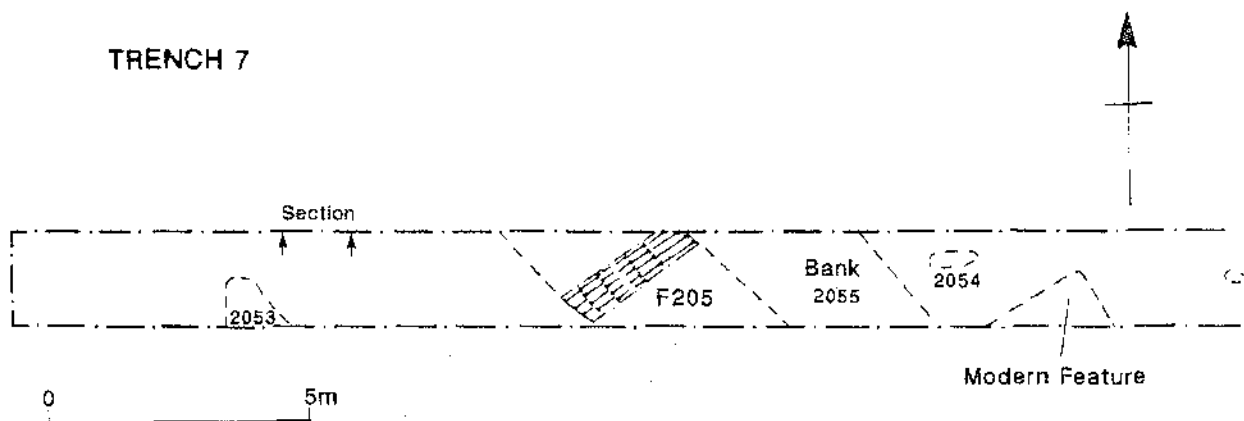
- 2031 Topsoil
- 2032 Mid orange-brown, compact alluvial clay
- 2033 Peat
- 2034 Blue-grey alluvial clay
- 2035 Mid grey-brown alluvial clay
- 2036 Dark brown silty alluvial clay, (some soil formation)
- 2037 Blue-grey alluvial clay
- 2038 Grey-brown, silty clay, degraded buried soil

- A Top of pollen monolith profile 1.
- B Top of soil micromorph profile 1



Fig.6

TRENCH 7



TRENCH 9

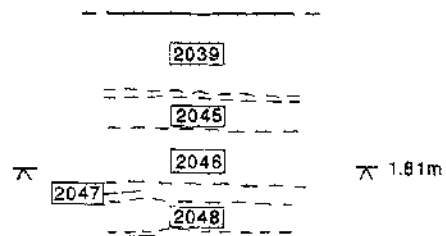
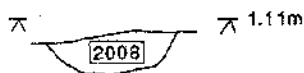
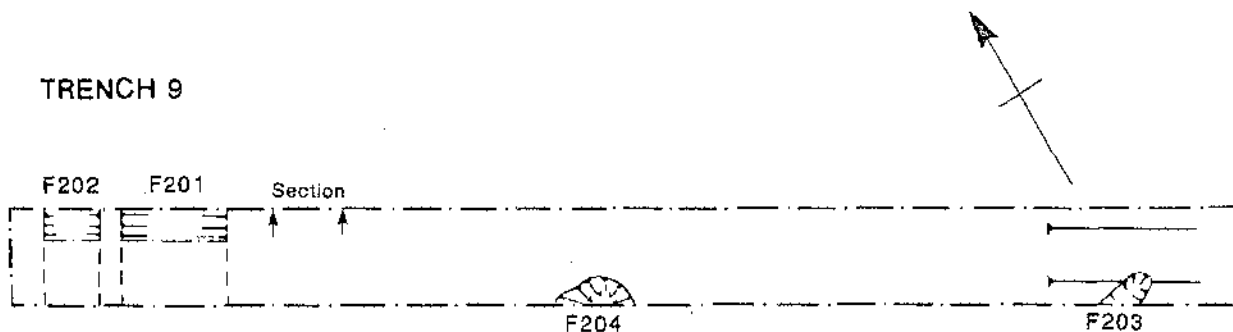
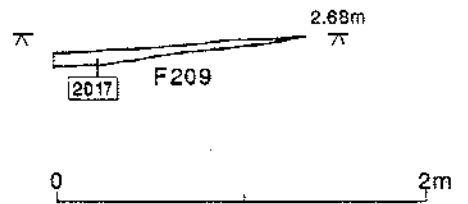
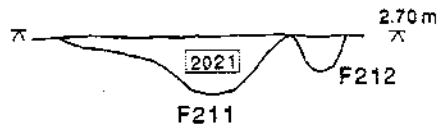
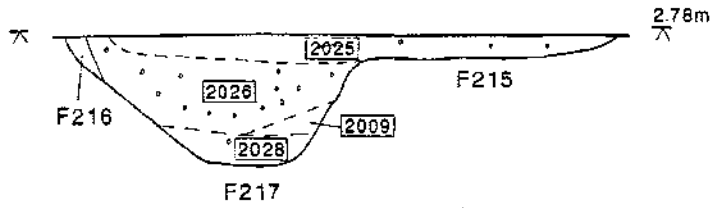
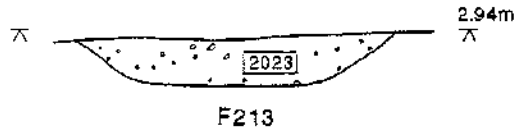
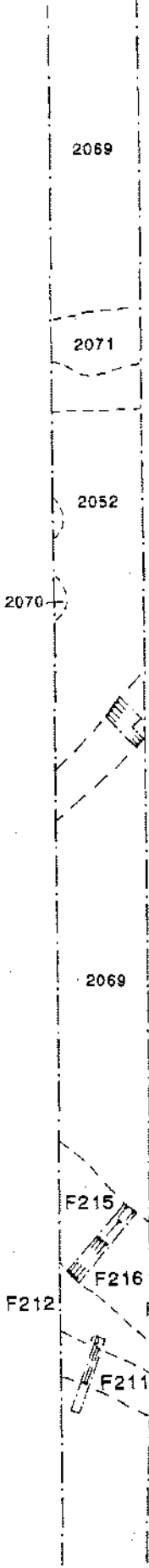


Fig.7

TRENCH 12



TRENCH 11

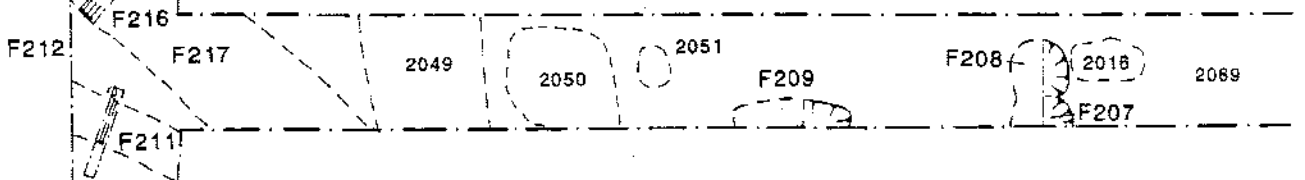


Fig. 8

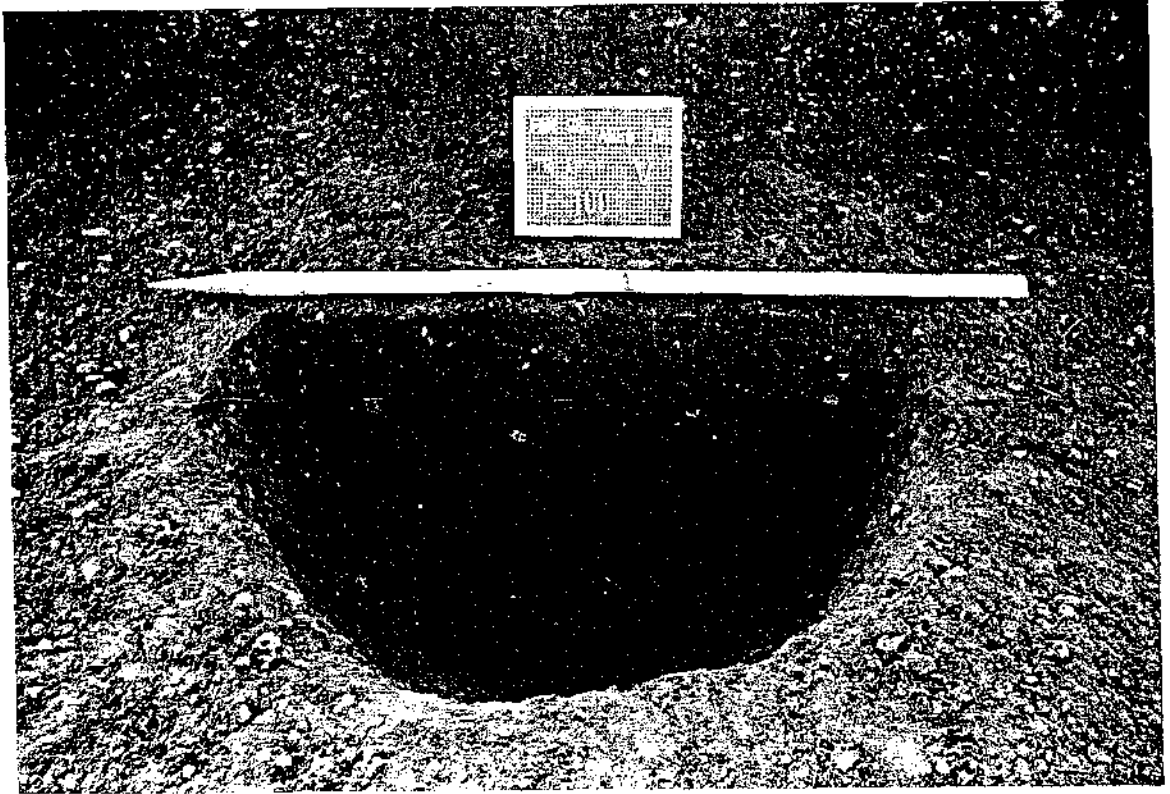


Plate 1

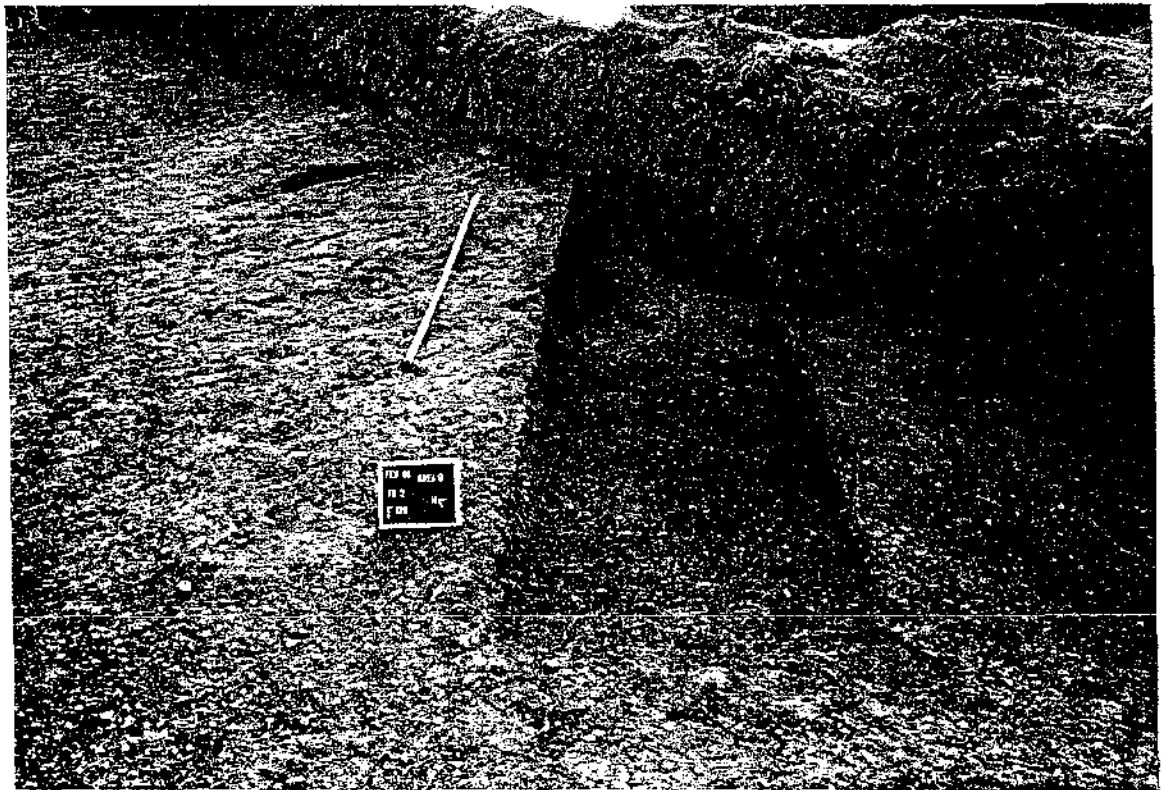


Plate 2

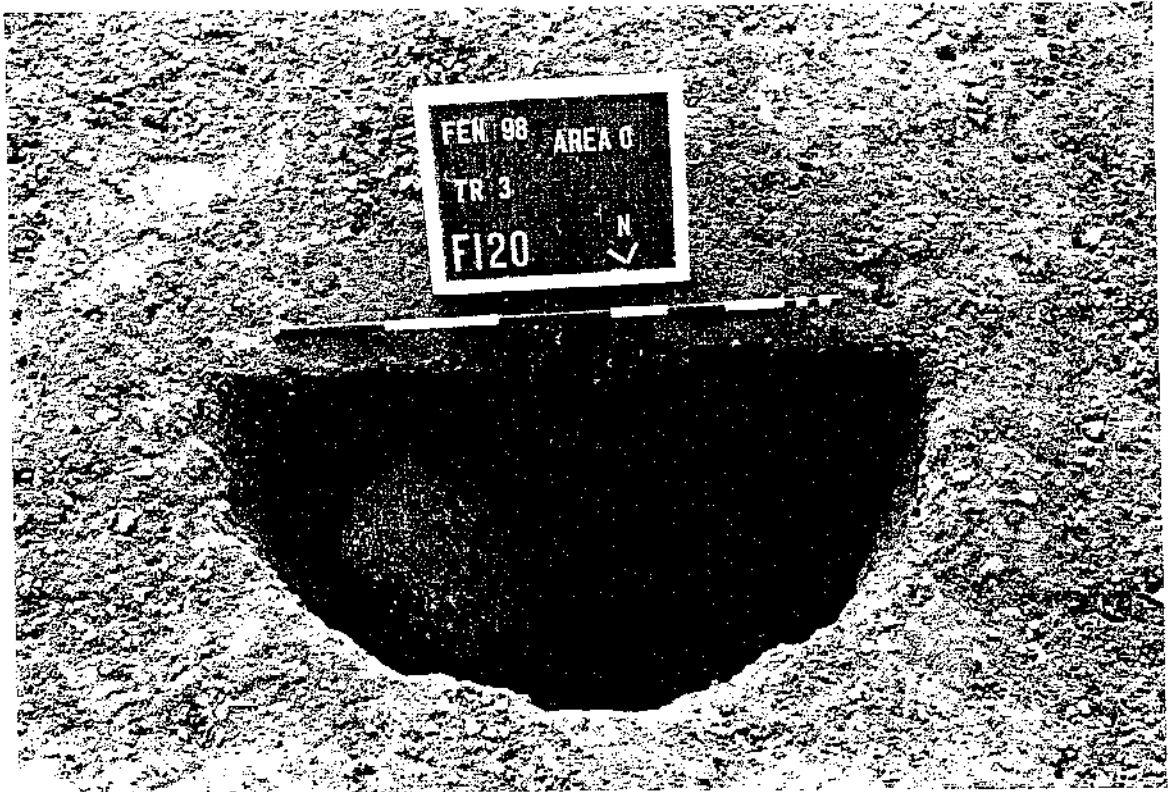


Plate 3

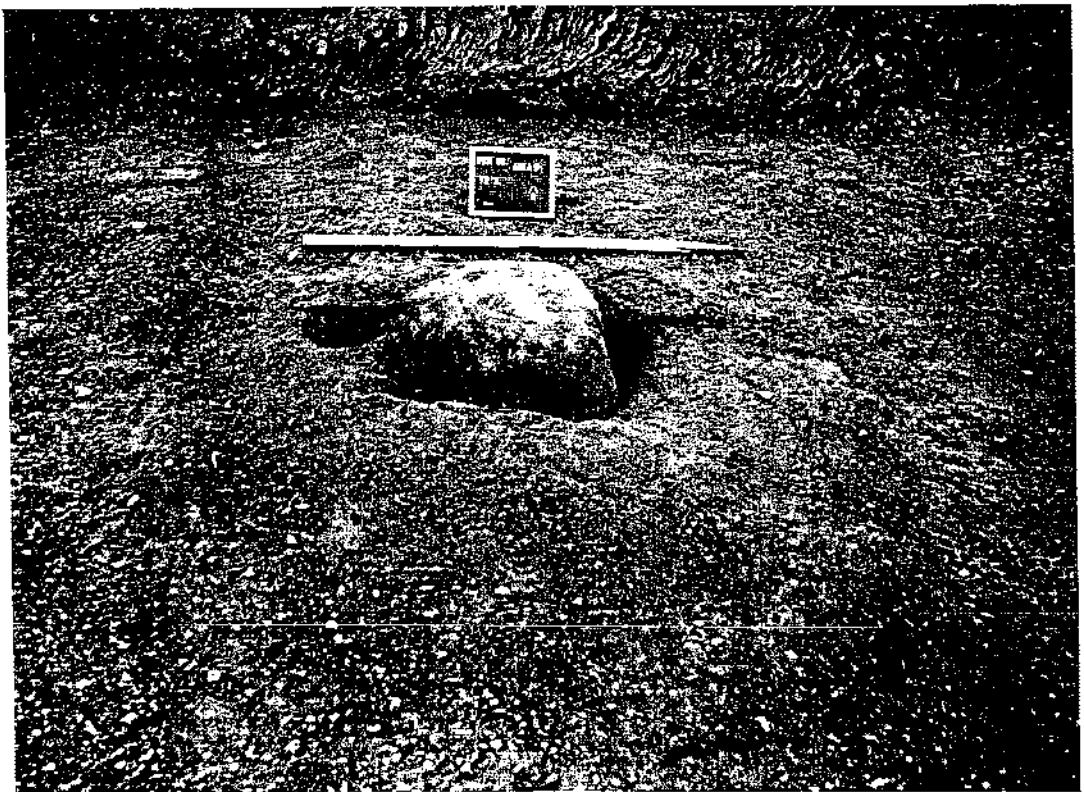


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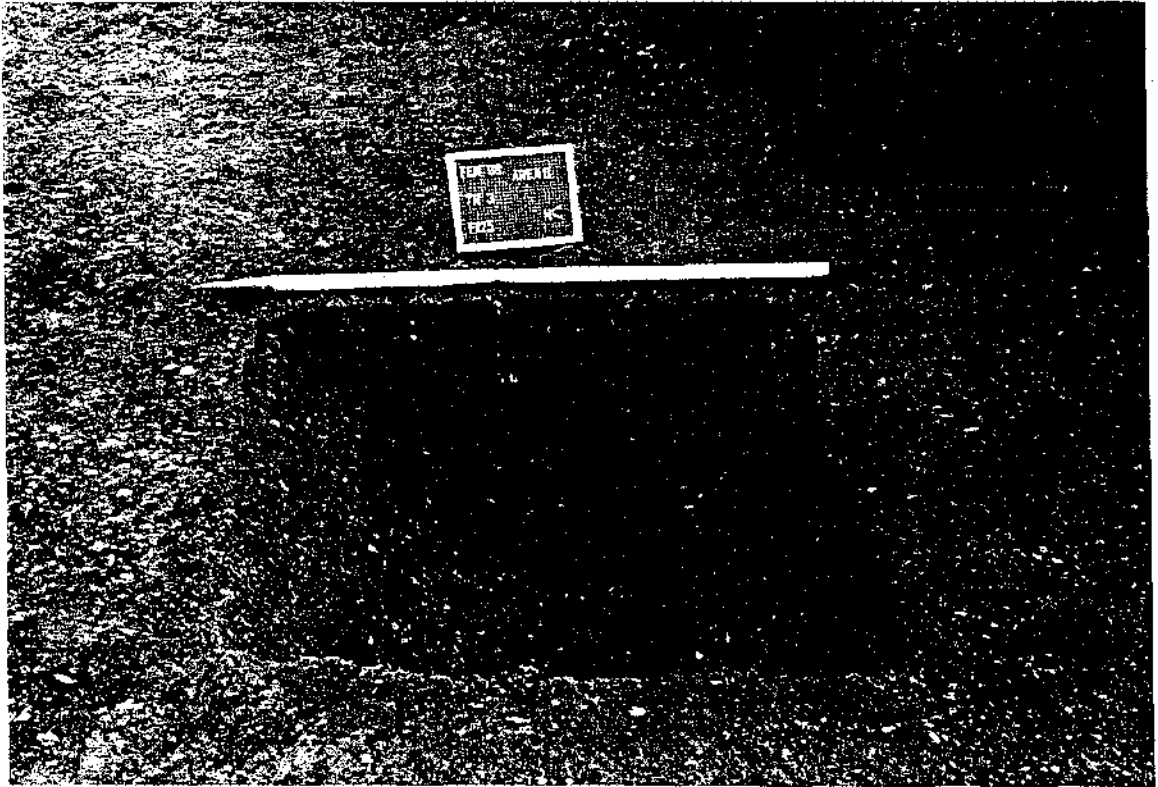


Plate 5



Plate 6



Plate 7

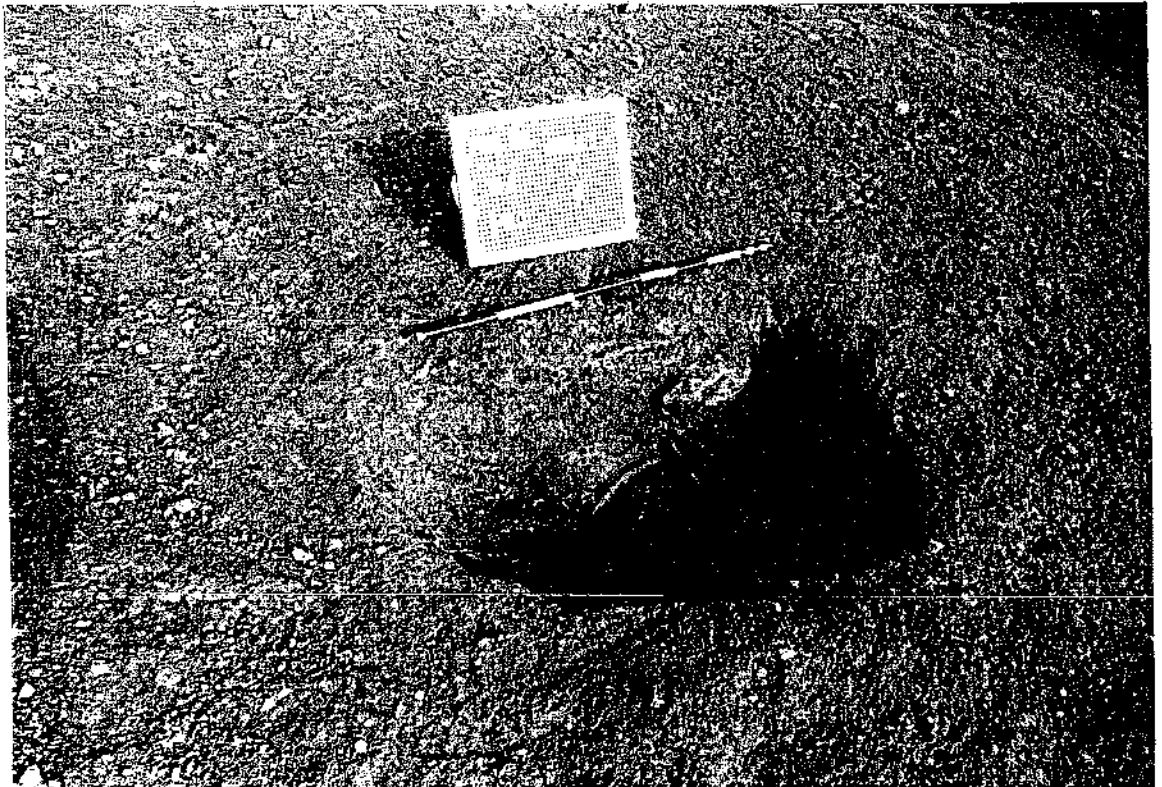


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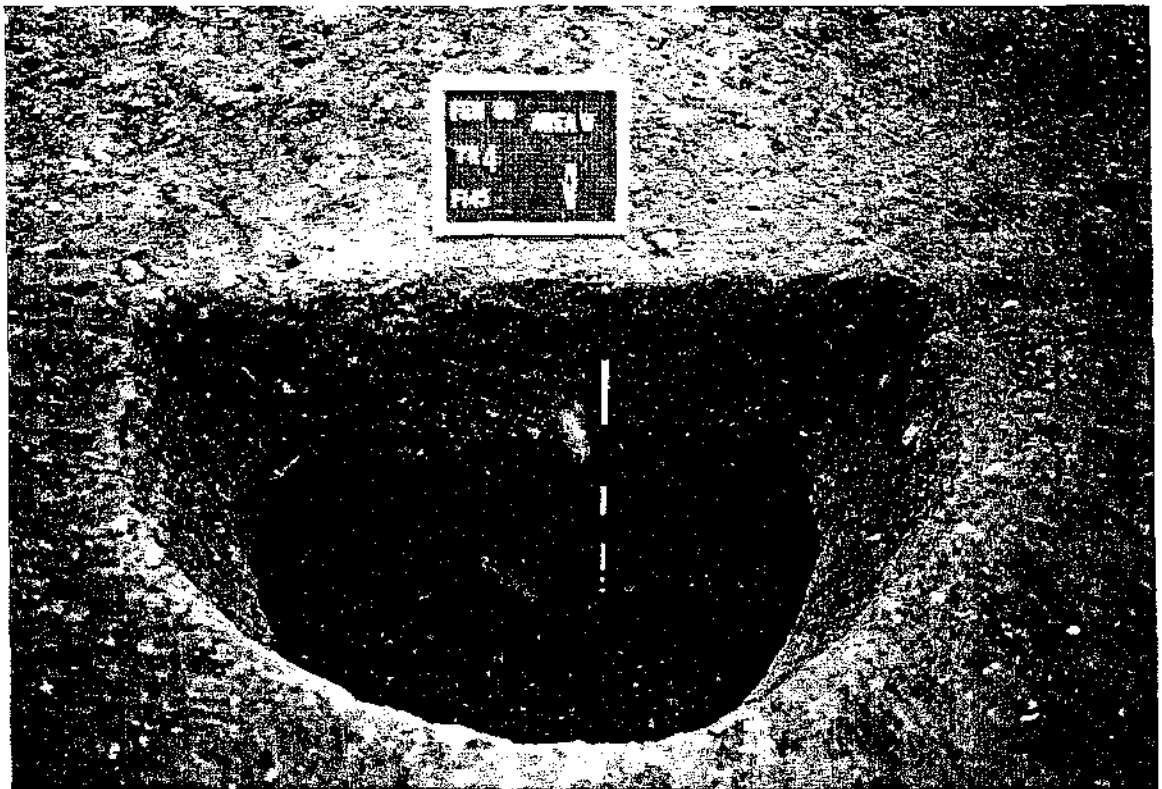


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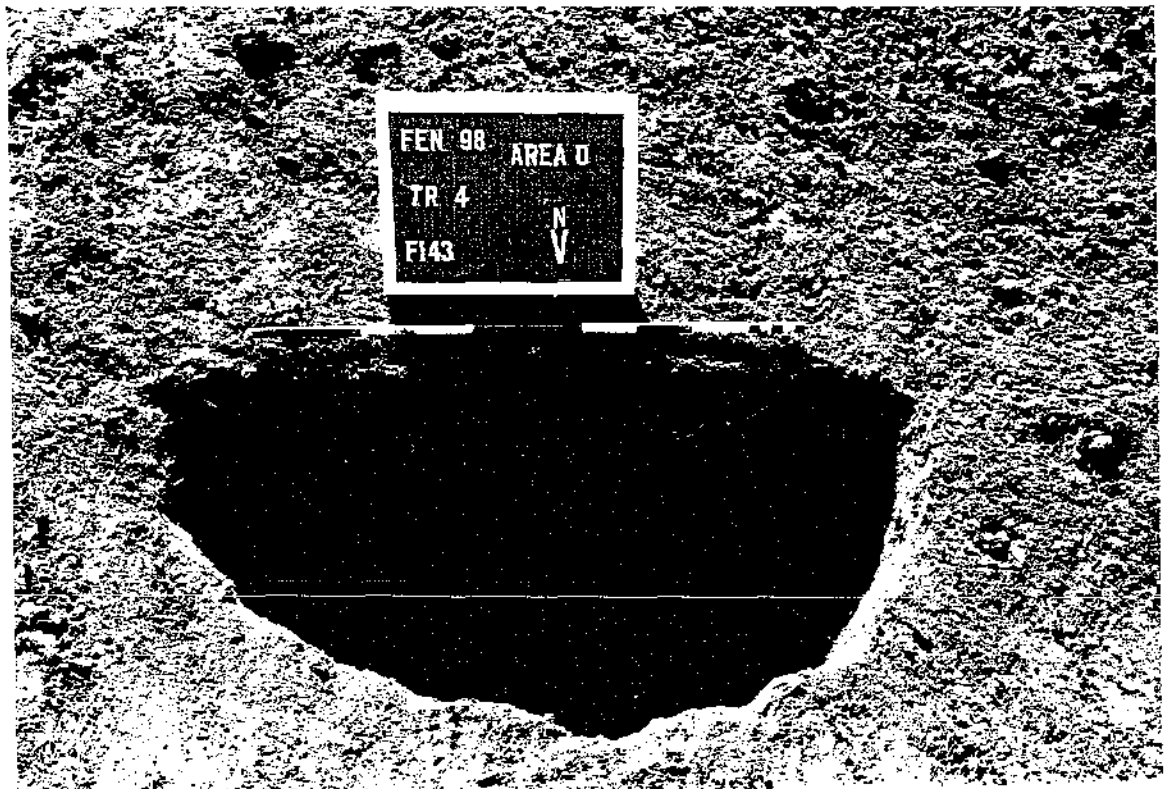


Plate 10

Plate 11

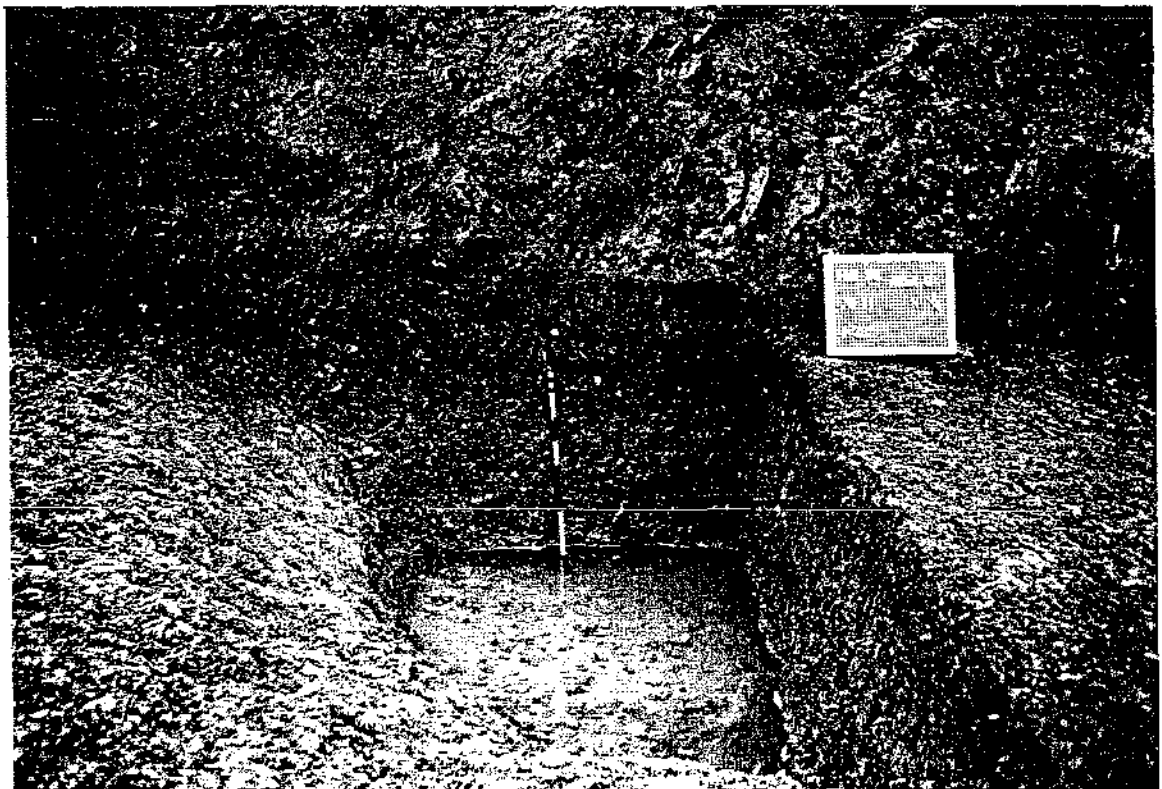


Plate 12

APPENDIX 1: Weight of animal bone by trench, feature and context

T/Fea/Con	Weight (g)
T4, 1015	8
T4, F109, 1016	12
T4, F110, 1017	87
T4, 1019	7
T1, F110, 1021	3
T1, F113, 1024	141
T1, F110, 1025	1
T3, F120, 1031	10
T4, F143, 1046	1
T4, F145, 1065	5
T4, F150, 1072	14
T4, F151, 1074	6
T4, F155, 1083	231
T11, 2002	23
T11, F207, 2014	72
T11, F208, 2015	25
T11, F209, 2017	42
T12, F213, 2023	30
T12, F215, 2025	30
T12, F216, 2028	1

APPENDIX 2: The detailed soil micromorphological descriptions

Profile 1 :

Samples 1/1 and 1/2 (1.35-1.425m and 1.435-1.55m)

Structure : apedal, massive, homogeneous; fine fraction is microaggregated or pellety, irregular, <75µm; *Porosity* : very dense (<6%); <5% vughs, irregular to sub-rounded, <1mm, rarely 2mm; <1% channels, short, vertical, <5mm long, <500µm wide; *Organic Component* : occasional (<5%) very fine amorphous/carbonised material in the groundmass, <50µm; few (5%) partial amorphous iron pseudomorphs of plant tissue; occasional (2-3%) small fragments of carbonised plant remains, <1mm; *Mineral Components* : limit = 100µm; coarse/fine ratio : 40/60; coarse fraction : 15% medium and 25% fine quartz sand, sub-rounded to sub-angular, unoriented, 100-500µm; fine fraction : >50% very fine quartz sand, sub-rounded to sub-angular, 50-100µm; 10% silty (or dusty) clay with 2-5% included, very fine, amorphous/carbonised organic matter; reddish brown (CPL), brown (PPL), orangey brown (RI.), greyish green in the field; *Groundmass* : fine and related : pellety, closed porphyric; coarse : undifferentiated; *Pedofeatures* : *Textural* : 10% non-laminated dusty clay in groundmass and as thin coatings of grains, weak birefringence, reddish yellow (CPL); rare (1%) aggregate of pure to dusty clay, sub-rounded to irregular, gold (CPL), strong birefringence; *Amorphous* : whole fabric weakly impregnated with amorphous sesquioxides.

Sample 1/3 (156-166cm)

Structure : apedal; heterogeneous mixture of homogeneous soil with c 40% fine flint gravel, <15mm, sub-rounded to sub-angular; *Porosity* : very porous (20%); all vughs, sub-rounded, <500µm; *Organic Component* : occasional (<5%) very fine amorphous/carbonised organic matter throughout groundmass; rare (1%) iron replaced plant tissue as pseudomorphs; *Mineral Components* : limit = 100µm; coarse/fine ratio : 40/60; coarse fraction : 20% medium and 20% fine quartz sand, sub-rounded to sub-angular, 100-500µm; fine fraction : 50% very fine quartz sand, sub-rounded to sub-angular, 50-100µm; <5% very fine amorphous/carbonised organic matter; 5% clay; grey/golden brown (CPL), medium brown (PPL), yellowish brown (RI.); *Groundmass* : fine and related : porphyric; zones of speckled/random striation; *Pedofeatures* : *Textural* : occasional (5%) non-laminated pure clay, mainly in groundmass, and as thin coatings of grains, strong birefringence, reddish orange (CPL); *Amorphous* : weak but uniform impregnation with amorphous sesquioxides.

Profile 2 :

Sample 2/1 (0.49-0.57m)

Structure : two horizons, upper and lower, fabric 1 and fabric 2, respectively, with a gradual merging between them over 1cm; horizon 1/fabric 1 (49-53cm); *Structure* : apedal; *Porosity* : 25% vughs, sub-rounded to irregular, <1mm; 10% channels,

irregular to parallel, <1cm long, <500um wide; *Mineral Components* : mixture of c 60% of fabric 2 (below) and 40% silty clay (fabric 3), in irregular zones, 4-5mm in width, and rarely in sub-rounded to irregular aggregates cemented with amorphous iron, <2mm; fabric 3 : coarse/fine ratio : 10/90; coarse fraction : 5% medium and 5% fine quartz, sub-rounded to sub-angular, 100-500um; fine fraction : <5% very fine quartz, 50-100um; 85% silty or dusty clay, moderate birefringence, gold (CPL), reticulate striated to speckled; *Groundmass* : porphyric; reticulate to weakly speckled; horizon 2/fabric 2 (53-7cm); *Structure* : apedal; *Porosity* : <30% vughs, large to small, sub-rounded to irregular, 5mm-250um; *Organic Component* : mainly (15%) amorphous/carbonised organic matter throughout groundmass, <50um; very few (<2%) iron replaced plant tissue fragments; occasional (3%) carbonised plant material with evident cell structure; *Mineral Components* : coarse/fine ratio : 50/50; coarse fraction : 30% medium and 20% fine quartz sand, 100-750um, sub-rounded to sub-angular; fine fraction : 20% very fine quartz, 50-100um; 15% very fine amorphous/carbonised organic matter in groundmass; 15% silty or dusty clay; greyish/yellowish brown (CPL), yellowish brown (PPL), orangey brown (RL); *Groundmass* : fine and related : porphyric; speckled to random striated; *Pedofeatures* : *Textural* : all non-laminated dusty clay, mainly in groundmass and as some coatings of grains, and few channel/void coatings, yellow to gold (CPL), weak to moderate birefringence; *Amorphous* : occasional (2%) bone fragments with phosphatisation; very few (<2%) phosphatic-amorphous iron 'flares'.

Sample 2/2 (0.59-0.67m)

Structure : apedal; heterogeneous mixture of homogeneous soil with <20% fine flint gravel, <15mm, sub-rounded to sub-angular; fine groundmass is micro-aggregated or pellety, irregular, <75um; *Porosity* : very open fabric; 30% vughs and interconnected vughs, irregular to sub-rounded, <500um; *Mineral Components* : limit = 100um; coarse/fine ratio : 40/60; coarse fraction : <1% coarse, 20% medium and 20% fine quartz sand, sub-rounded to sub-angular, unoriented, 100um-1.5mm; fine fraction : 40% very fine quartz sand, 50-100um; 10% very fine, amorphous/carbonised organic matter in groundmass; 10% silty or dusty clay; greyish/reddish brown (CPL), reddish brown (PPL), yellowish orange (RL); *Groundmass* : fine and related : porphyric, weakly speckled; *Pedofeatures* : *Textural* : 10% non-laminated dusty clay in groundmass and as coatings of grains to lesser extent, yellow to red (CPL), moderate birefringence; *Amorphous* : whole fabric impregnated with amorphous sesquioxides to a greater or lesser extent.

Sample 2/3 (0.71-0.825m)

As for sample 2/2 above except for :

Pedofeatures : *Textural* : rare (2%) micro-laminated pure clay around some sand grains, succeeded by slightly dusty coating, gold to amber (CPL), moderate to strong birefringence; *Amorphous* : 5-10% amorphous iron-phosphatic 'flares' in void space in the upper 2cm of the slide; and whole fine fraction cemented with amorphous sesquioxides between and around quartz sand grains.

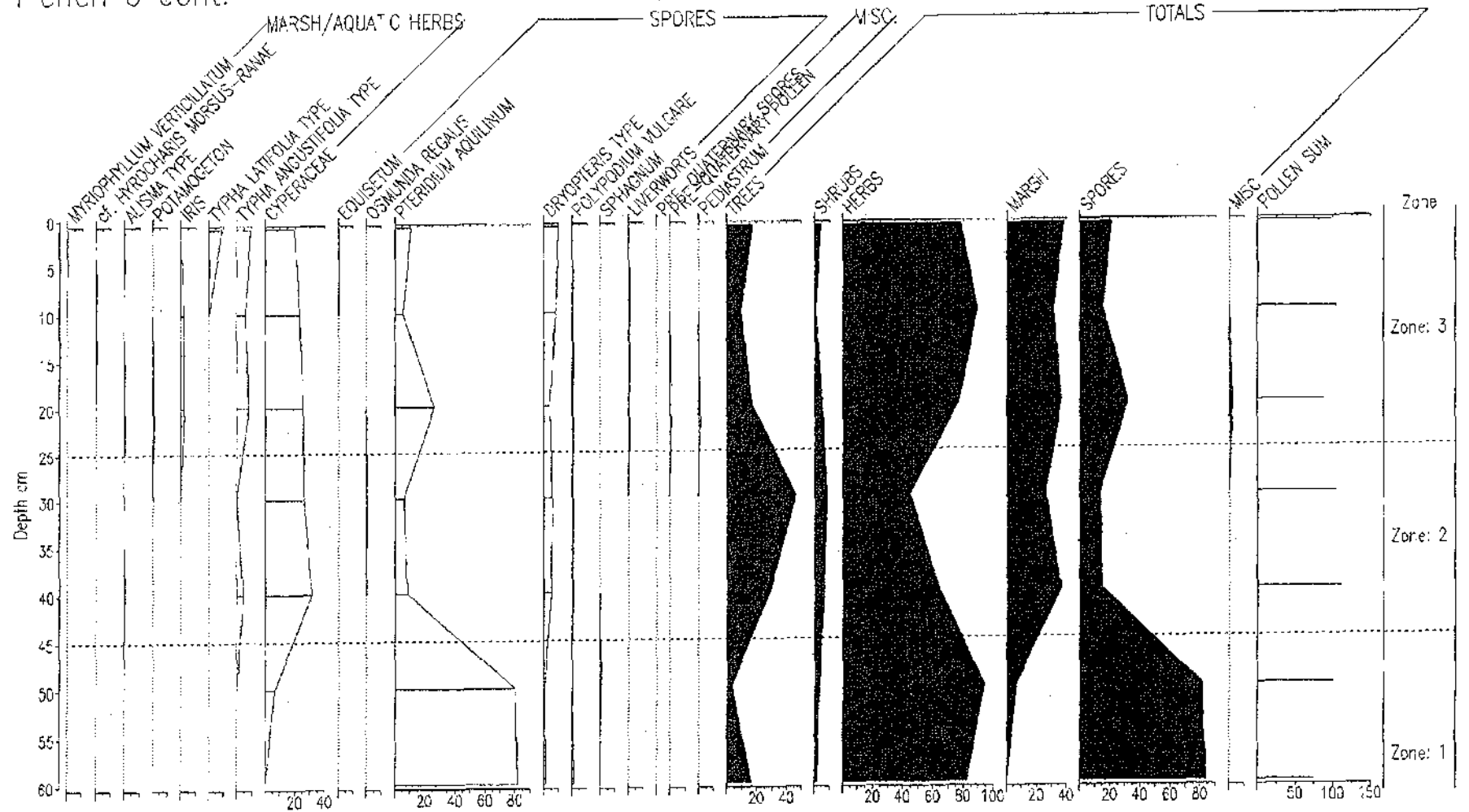
APPENDIX 3: Pollen Procedure and Methodology

Standard pollen procedures have been used for the extraction of the preserved pollen and spores. These procedures are detailed in Moore and Webb (1978) and Moore *et al.* (1991). This was carried out in the Department of Geography, University of Southampton.

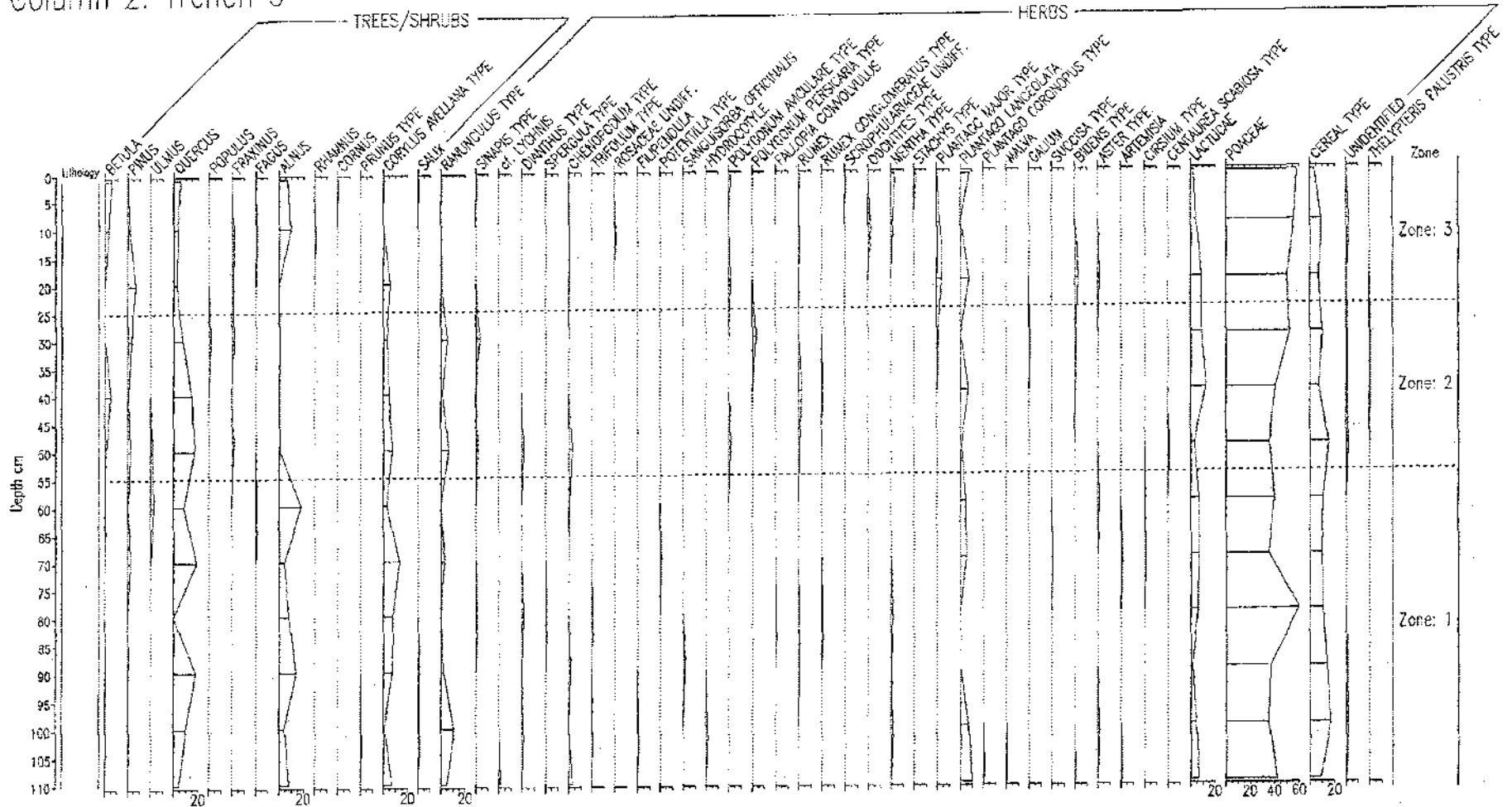
- Samples of 1 ml size.
- Decalcified (10% HCL).
- Deflocculation with 10% NaOH.
- Sieving at 150u for removal of the coarse fraction.
- Sieving at 10u (residue kept) for removal of clay.
- Hydrofluoric acid (boiling) digestion of silica.
- Erdtman's acetolysis.
- Washing/centrifuging.
- Staining with aqueous safranin and mounting in glycerol jelly.

Pollen was examined, identified and counted using an Olympus biological research microscope at magnifications of x400 and x1000 with normal transmitted and phase contrast lighting. An extensive pollen reference/comparative collection is available for identification of difficult/critical taxa (*Palaeopol*). Plant taxonomy follows that of Stace (1991). Pollen taxonomy generally follows that of Moore *et al.* (1991) modified according to Bennett *et al.* (1994) in accord with Flora Europaea/Stace (1991). The data have been presented in standard pollen diagram form (Fig. 1) with the pollen of dry land taxa calculated as a percentage of their sum. Marsh types and spores are as a percentage of the dry land sum+the sub-group. The pollen diagram was plotted using *Tilia* and *Tilia* Graph. These procedures were carried in the Department of Geography, University of Southampton.

Trench 6 cont.

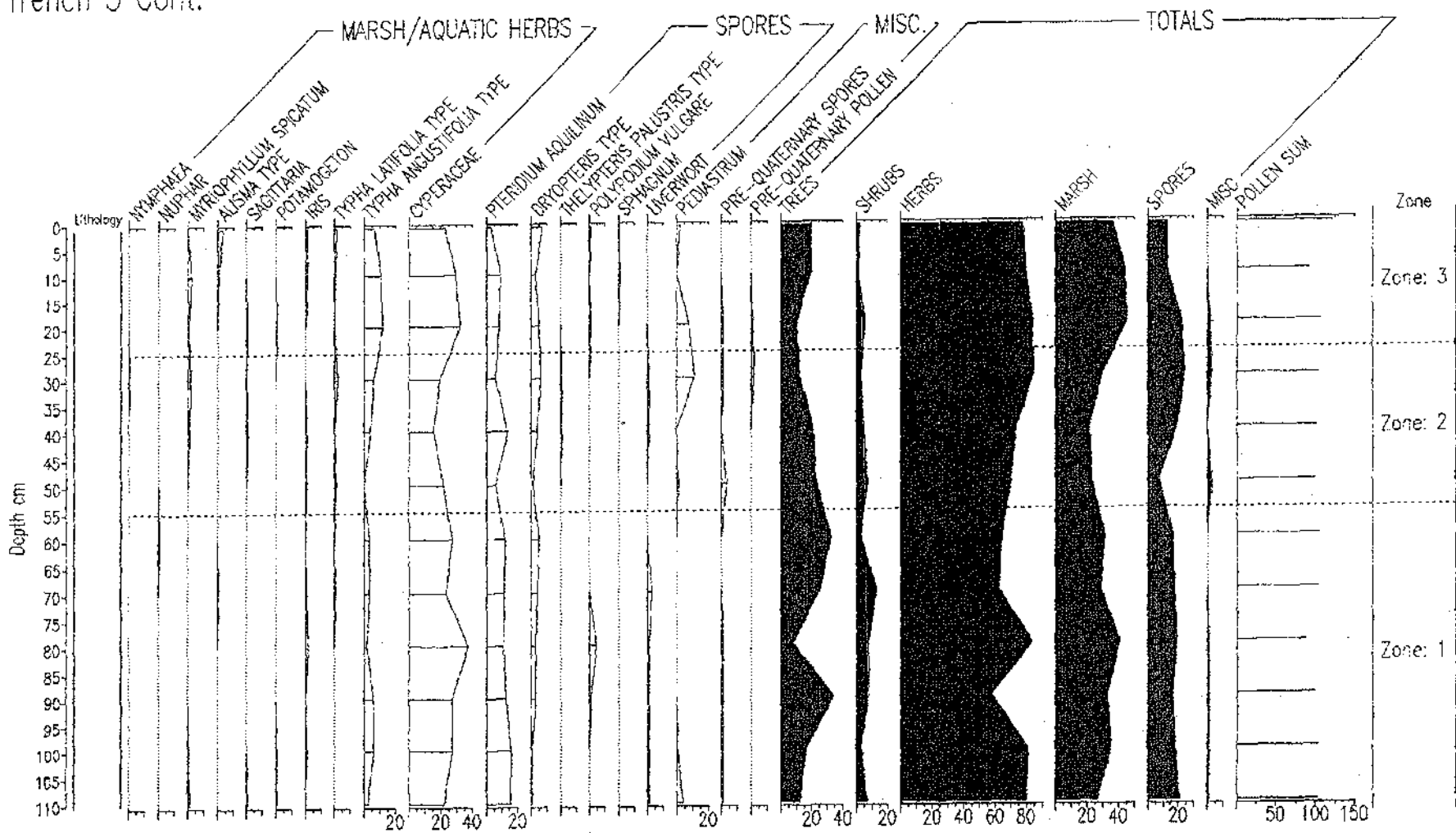


Column 2: Trench 5



APPENDIX 5: Pollen results, Column 2, Trench 5

Trench 5 Cont.



Rob Scaife 1998

APPENDIX 6: Insect samples by weight, volume and context

Sample code.	A	B	D	H	K	M	40
Weight kg.	7	7	7	8	5	8	19.5
Volume L.	7	6.5	6	5.8	5.5	6	15
COLEOPTERA							
Carabidae							
<i>Elaphrus fuliginosus</i> F.	-	-	-	-	+	+	-
<i>Dyschirius globosus</i> (Hbst.)	-	-	-	-	-	-	+
<i>Bembidion ?sevipunctatum</i> (Donov.)	-	-	-	-	-	+	-
<i>B. spp.</i>	→	++	+	-	-	-	-
<i>Trechus</i> sp.	-	-	-	-	+	+	-
<i>Pterostichus nigrata</i> (Payk.)	-	-	-	-	-	+	-
<i>Agonum thoreyi</i> Dej.	-	-	-	-	+	+	-
<i>A. spp.</i>	-	-	-	-	-	+	-
<i>Odacantha melanura</i> (L.)	-	-	-	-	-		-
<i>Dromius longiceps</i> Dej.	-	-	+	-	-	-	-
Halpidae							
<i>Halipus</i> sp.	-	-	-	-	-	-	-
Dytiscidae							
<i>Coelambus</i> sp.	+	-	+	-	-	-	-
<i>Hydroporus</i> sp.	-	-	-	+	-	-	-
<i>Noterus clavicornis</i> (Geer)	-	-	-	+	-	-	-
<i>N. spp.</i>	-	-	-	-	+	-	-
<i>Agabus</i> spp.	-	-	+	-	-	++	-
<i>Colymbetes fuscus</i> (L.)	-		-	-	-	+	-
Gyrinidae							
<i>Gyrinus</i> spp.	-	-	-	-	-	+	-
Hydraenidae							
<i>Ochthebius minimus</i> (F.)	+	-	+	-	+	-	-
<i>O. spp.</i>	+	+++	+++	+++	++++	→+++	-
<i>Helophorus</i> spp.	-	-	+++	++	-	→	-
<i>Linnebius</i> spp.	-	-	++	+	++	→	-
Hydrophilidae							
<i>Coelostoma orbiculare</i> (F.)	-	-	+	-	+	-	-
<i>Cercyon</i> (aquatic) spp.	+	++	-	+	++	-	-
<i>C. spp.</i>	-	-	+	-	-	-	+
<i>Megasternum boloetophagum</i> (Marsh.)	-	-	-	-	+	+	-
<i>Hydrobius fuscipes</i> (L.)	-	+	+	+	-	+	-
<i>Laccobius</i> spp.	-	-	-	+	-	++	-
<i>Enochrus</i> spp.	+	+	-	+	-	-	-
Orthoperidae							
<i>Corylophus cassidoides</i> (Marsh.)	-	-	-	-	-	→	-
Staphylinidae							
<i>Omalium</i> spp.	-	-	-	+	-	-	-
<i>Leisteva</i> spp.	-	-	-	+	-	+	-
<i>Trogophilus ? corticinus</i> (Grav.)	-	+	+	-	-	-	-
<i>T. spp.</i>	+	+	+	-	-	-	+
<i>Anotylus rugosus</i> (F.)	-	-	+	-	-	+	-
<i>A. ? nitidulus</i> Grav.	-	-	+	+	+	-	+
<i>Platystethus ? cornutus</i> (Grav.)	+	-	-	-	-	-	-
<i>P. nodifrons</i> Mannh.	-	-	-	+	-	+	-
<i>Siemus</i> spp.	-	+	-	+	+++	+	-
<i>Paalorus</i> spp.	-	-	+	-	-	-	-
<i>Siticus</i> sp.	-	-	-	-	-	-	+
<i>Lathrobium</i> spp.	+	+	-	-	-	++	-
<i>Tachyporus</i> sp.	-	+	+	-	-	-	-
Aleocharinae Gen. & Spp. indet.	-	→	+	-	→	→	-
Pselaphidae							
<i>Brachyglata</i> spp.	-	-	-	-	-	+	-
<i>Bryaxis</i> spp.	-	-	-	+	-	-	-
Cantharidae							
<i>Silis ruficollis</i> (F.)	-	-	-	-	+	-	-
Helodidae							
Helodidae (c.f. Cyphon)	-	-	-	-	-	+	-
Dryopidae							
<i>Dryops</i> sp.	-	+	-	-	-	-	-
<i>Oulimnius</i> spp.	++	++	-	-	-	-	-

Cryptophagidae							
<i>Atomaria</i> spp.	-	-	-	+	+	-	-
Phalacridae							
<i>Phalacrus</i> spp.	-	+	-	+	-	-	-
Lathridiidae							
<i>Enicmus minutus</i> (group)	+	-	-	-	-	-	-
<i>Carticaria</i> or <i>Carticarina</i> spp.	-	-	-	-	+	-	-
Scarabaeidae							
<i>Onthophagus</i> spp.	-	+	+	-	-	!	! !
<i>Aphodius</i> spp.	++	+	++	++	++	+++	+
<i>Geotrupes</i> sp.	-	-	-	-	+	-	-
<i>Phyllopertha horticola</i> (L.)	+	-	-	-	-	-	-
Chrysomelidae							
<i>Donacia ?marginata</i> Heppé	-	-	-	++	-	+	-
<i>D. ?vulgaris</i> Zschach	-	-	-	-	+++	+	-
<i>Plateumaris bruceata</i> (Scop.)	-	-	-	-	++++	++++	-
<i>P. sericea</i> (L.)	-	-	-	+++	+++	++++	-
<i>Prasocuris phellandri</i> (L.)	-	-	+	+	+	+	-
<i>Phyllotreta</i> spp.	!	-	-	-	-	! !	-
<i>Haltica</i> sp.	-	+	+	+	-	-	-
<i>Chaetocnema concinna</i> (Marsh.)	-	+	-	+	+	-	-
Curculionidae							
<i>Apion</i> spp.	+	++	-	-	+	+	!
<i>Phyllobius</i> spp.	!	-	!	-	-	-	-
<i>Sitona</i> sp.	-	+	-	-	-	-	-
<i>Bagous</i> spp.	+	++	+	+	+	+	-
<i>Tanysphyrus lemnae</i> (Payk.)	+	+++	++	-	+	+++	-
<i>Notaris acridulus</i> (L.)	-	++	++	+	-	-	-
<i>Thryogenes</i> spp.	-	-	-	-	+	+	!
<i>Leiosoma deflexum</i> (Panz.)	-	! !	-	-	-	-	-
<i>Ceutorhynchus erysimi</i> (F.)	-	+	-	-	-	-	-
<i>C.</i> spp.	-	-	-	+	-	+	-
<i>Gymnetron pascuorum</i> (Gyll.)	-	-	-	-	-	-	+
<i>G.</i> spp.	-	-	-	-	-	-	+
<i>Rhynchaenus</i> spp.	+	-	+	-	-	-	-
TRICOPTERA							
Genus and spp. Indet.	-	-	-	+	++	++	-