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Archaeological Field Unit

An Archaeological Assessment at Barford Road, Eynesbury

In connection with planning application HO469/95 for housing, open space and business uses

Niall Oakey

1995

Ammended By

Steve Kemp

May 1996

Cambridgeshire County Council

Report No. A67

Commissioned By Phillips Planning Services on behalf of the Banks Family Settlement

An Archaeological Desktop Assessment at Barford Road, Eynesbury.

In connection with planning application H0469/95 for housing, open space and business uses.

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SUMMARY

This study is designed to assess the archaeological potential of a site of approximately 40.9 hectares between Barford Road, Eynesbury and the River Great Ouse, allocated in the Huntingdonshire Local Plan for housing, open space and business uses.

Existing archaeological knowledge reveals that humans have been active in this environment since at least the Mesolithic period. Cropmarks show the existence of a substantial ritual landscape of the Neolithic and Bronze Age period. Excavations on the periphery of the development area indicate that archaeological deposits associated with this period may have survived subsequent truncation by ploughing.

This survival is partly attributable to the protection afforded by alluvium deposited by successive flooding episodes from water courses and palaeochannels, some of which are apparent as cropmarks. Trackways and ditches of the Romano-British period cut into the top of this alluvium, but most earthworks including the medieval ridge and furrow have been obliterated by modern ploughing.

The site affected by the development proposal is shown to be of potential archaeological sensitivity and it is proposed that further evaluative work take place in order to closely define the nature and extent of surviving archaeological deposits. This will enable the formulation of a detailed mitigation strategy to minimise the damage done to the archaeology by the proposed development.

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	Cropmark data and location of auger holes. A fold out map at 1:2500 scale is also included. Extract from the Estate Map of Eynesbury 1757 Extract from Enclosure Map of 1800

An Archaeological Desktop Assessment at Barford Road, Eynesbury TL 180/585

1. INTRODUCTION

In July 1995 the Archaeological Field Unit of Cambridgeshire County Council carried out an archaeological assessment of a site approximately 40.9 hectares lying between Barford Road, Eynesbury and the River Great Ouse allocated in the Huntingdonshire Local Plan for housing, open space and business uses (Figure 1).

The work was carried out for Phillips Planning Services of Bedford, acting on behalf of the Trustees of the Banks family settlement, and complied with the requirements of a Brief for Archaeological Desk-top Assessment produced by the Archaeology Section of Cambridgeshire County Council in response to planning application H0469/95.

2. BACKGROUND

- 2.1 The area under consideration lies adjacent to existing floodplain of the Great Ouse River, with an underlying geology of first and second Terrace Gravels. Deposition of alluvium as a result of flooding episodes during the Holocene period has created an attractive environment for human exploitation and also has implications for the sealing and preservation of archaeological deposits.
- 2.2 Existing evidence indicates that the terrace gravels of the Great Ouse River has been attractive to human settlement and agricultural activity since prehistoric times and a buried landscape of potential archaeological significance has been created. Its potential was highlighted in a recent county-wide survey (French and Wait 1988, 86-9), and by the English Heritage Monument Protection Program (MPP). Scoring of individual monuments in 1990 using MPP criteria did not consider the immediate landscape to be worth scheduling. However, individual archaeological sites such as the long barrows and cursus monuments did score highly in their respective groups.
- 2.3 Recent archaeological prospection and excavation on the peripheries of the development area have confirmed the archaeological potential of this area (see below, 4.4).

3. AIMS

- 3.1 To identify areas of high archaeological potential through collation and assessment of archaeological remains in the development area, combined with assessment of the extent and nature of alluvial deposits.
- 3.2 To assess the potential state of preservation of archaeological deposits that may exist on the site.

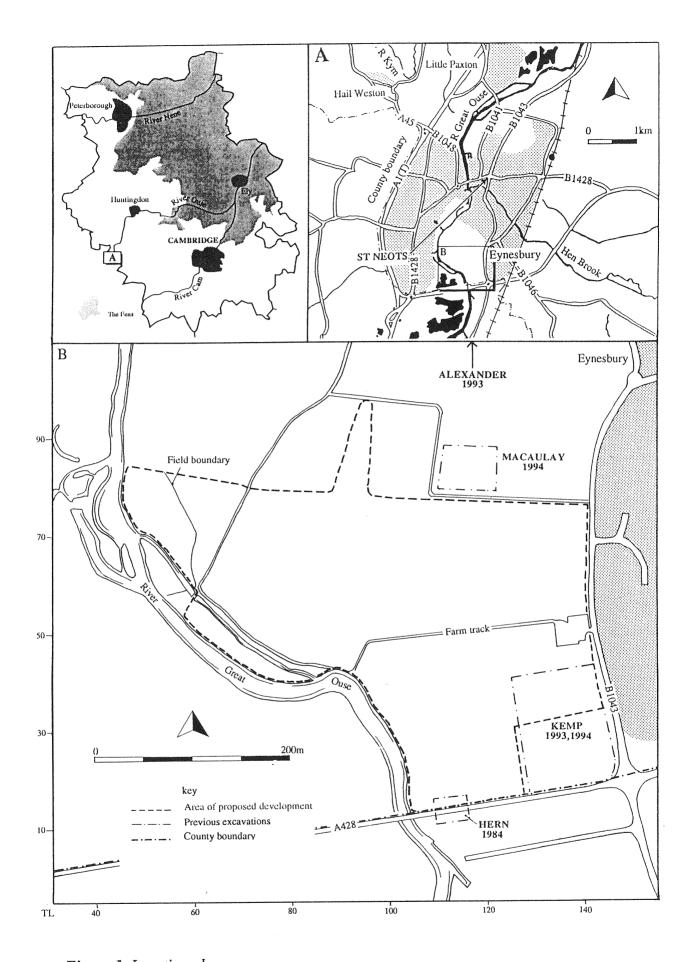


Figure 1 Location plan

- 3.3 To assess the potential archaeological implications of any ground disturbance associated with the development.
- 3.4 To assess and identify investigative techniques which may be applicable in the formulation of necessary mitigation strategies such as further evaluation and/or preservation of archaeology.
- 3.5 To assess the regional context for the archaeological evidence and highlight any relevant research priorities.
- 3.6 To provide recommendations for the detailed investigation of the archaeological applications of the proposed development.

4. METHODS

- 4.0.1 To achieve aims **3.1 3.6** the following suite of non-destructive or minimally destructive investigative techniques were used.
- 4.0.2 Sources consulted include the archives of the Cambridgeshire County Council Archaeological Field Unit, the County Record Offices in Cambridge and Huntingdon, Cambridgeshire Sites and Monuments Record, the Royal Commission of Historic Monuments, the National Monuments Record and the Cambridge University Collection of Aerial Photographs,

4.1 Site visit

- 4.1.1 The proposed development site was inspected on July 12th 1995 when the majority of the area was under cereal crop. Exceptions included the "island" (TL 176/585) formed by a drain cutting off a bend of the river, together with land adjacent to the river to the north (TL 174/587), which were covered with trees and scrub; a strip of land running northwards from Tesco to the east/west track (TL183/583), covered with dumped topsoil; and strips of dumped and/or disturbed soil adjacent to Barford Road and the A428.
- 4.1.2 The cereal crop was 0.40-0.50m high and meant that any earthwork remains or subtle topographical features were invisible. However, the areas of deeper soil highlighted on the aerial survey (see below and Appendix C) were clearly visible as areas of green, unripened crop, contrasting with the yellow, ripened appearance of the remainder. Part of the crop on the field to the north of the main area (TL 178/588) had suffered from fire or disease and was stunted and blackened.

4.2 Sites and Monuments Record

- 4.2.1 The Cambridgeshire Sites and Monuments Record (SMR) was consulted and the records for the development site and the immediate area mapped (*Figure 2*) and listed (Appendix A).
- 4.2.2 It should be noted that SMR entries represent discoveries made by chance, as a result of development work or as part of a research-driven survey. As such, they can never represent a complete picture of the survival of archaeological deposits in a particular area. They flag up elements of the archaeological potential of an area and should be used as part of a larger corpus of evidence.

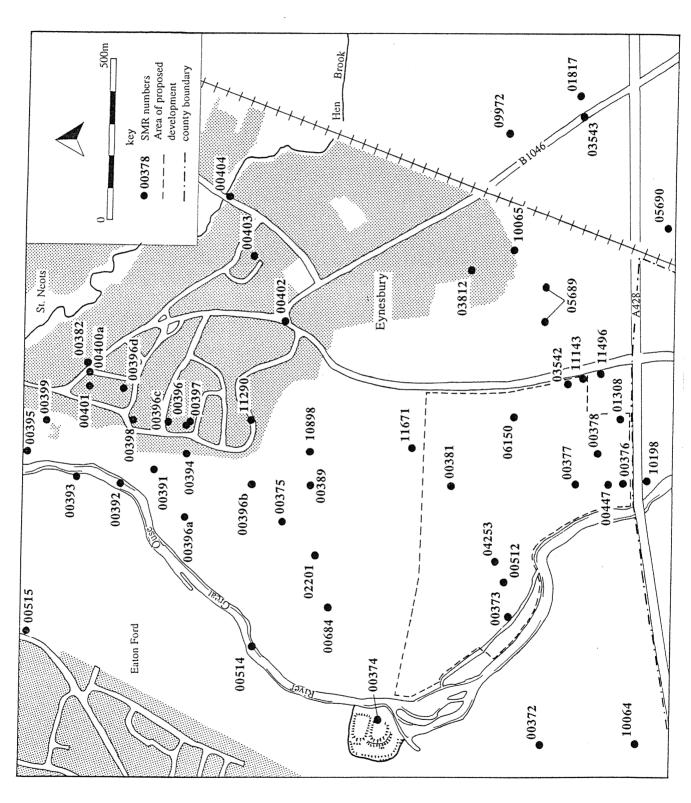


Figure 2 Sites and Monuments Record

It should be noted that SMR 4253 refers to unprovenanced Cropmark evidence for a Roman villa within the development area. Cropmark evidence for such a monument did not recur on any of the material examined by Air Photo Services (Appendix C).

4.3 Documentary Records

- 4.3.1 Documents and maps relevant to the site were consulted in the County Record Office, Huntingdon. Maps consulted included the Estate Map of Eynesbury 1757 (HRO MD2 220/20, 21) showing the landholdings of the Earl of Sandwich within the open-field system; the Enclosure map and award of 1800 (HRO 2603/26/3); and the Ordnance Survey map of 1882/7, Sheet XXV 15. The relevant information is reproduced as *Figures 4-6*, although it is difficult to plot the development area onto the 1757 map with any accuracy.
- 4.3.2 Documents consulted comprised of Glebe Terriers dated to 1550/1600, 1607, 1673 (HRO 2603/3/1-3), which described those strips within the open field held by the rector; and Tithe Agreements of 1769-73 (HRO 2603/3/5) which outline the tithes due to the church.

4.4 Excavation Reports

4.4.1 Reports were consulted from a number of archaeological projects that have taken place on the perimeter or close to the development area. These include Herne 1984; Alexander 1993; Kemp 1993, and in prep; and Macaulay 1994. Some of these projects employed a range of geophysical prospection methods.

4.5 Aerial Photographic Evidence

4.5.1 Air Photo Services of Cambridge were commissioned to carry out a reassessment of aerial photographic evidence for the development area. Their report is included as Appendix C. The aerial photographic plots at 1:2500 are included in *Figure 3*.

4.6 Auger Survey

- 4.6.1 Upon receipt of the report from Air Photo Services, a hand auger survey was carried out on July 13th and 14th. However, prevailing ground conditions greatly reduced the efficacy of this technique. A period of four weeks with negligible rainfall combined with the high soil strength of the subsoil/alluvium (noted as slowing machine excavation in Macaulay 1994, and Kemp in prep) made it extremely difficult to penetrate much below topsoil. The position of auger holes with recordable results and attempted auger holes, is noted on Figure 3.
- 4.6.2 Auger holes 2, 3, 6, 9 and 14 penetrated deepest (0.75 1.25m), with holes 2 and 9 (*Figure 3*) reaching the natural sands and gravels at 1.1m and 1m respectively. The auger holes 3, 9 and 14 penetrated clays and silts below the subsoil and above the natural sands and gravels. (Detailed results are held in archive and are available upon request).

4.7 Fieldwalking

- 4.7.1 Fieldwalking was undertaken during September 1995. Visibility was good though the present crop stood at up to 0.05m in height, with a 10% coverage. The development area was walked in transects 20m apart. Finds were collected, individually bagged, and surveyed using a total station. The exact location of all finds can be seen in Figure 3. Analysis of the lithics was undertaken by Dr T. Reynolds and is reported in Appendix D.
- 4.7.2 One major concentration of flint tools and cores was recognised during the initial traverse (*Figure 3*), this concentration lies at TL 17495/584. This was then targeted using a more detailed collection strategy, which entailed total collection within a 625m² area.
- 4.7.3 Fieldwalking also gave some indication of the depth of alluvium across the development site. In all areas, excluding those marked as deep soil on the aerial photographic plot (*Figure 3*), gravels were visible within the topsoil. This suggests that the alluvial cover is presently largely preserved within the palaeochannels and that elsewhere, alluvial cover is either thin, or non-existent.

5. SUMMARY OF THE KNOWN ARCHAEOLOGICAL RESOURCE

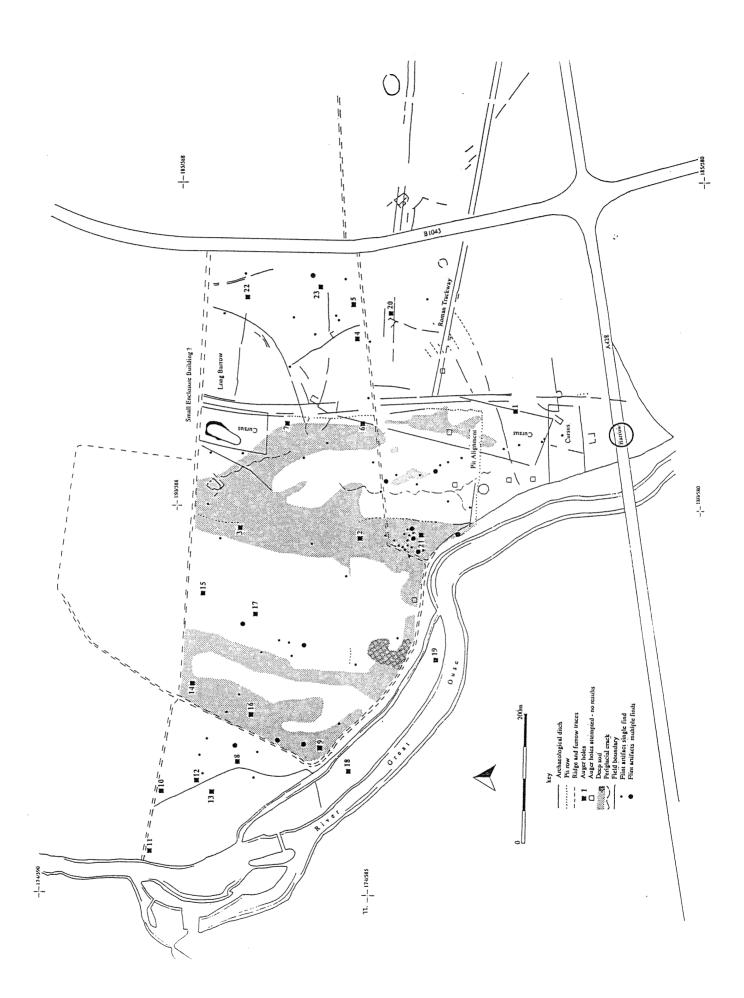
5.0.1 The archaeological sites and landscapes recognised by the methodology employed above are outlined below according to recognised archaeological periods.

5.1 Palaeolithic and Mesolithic (c450,000 - c3500 BC)

- 5.1.1 No evidence of Palaeolithic activity has been recovered, but scatters of Mesolithic worked flint have been found. More evidence of Mesolithic flint working was recorded during excavations adjacent to the application area TL 181/581 (Herne 1984).
- 5.1.2 Recent fieldwalking revealed late Mesolithic / early Neolithic flint tools and cores within the development area. Finds concentrations are illustrated on *Figure 3*.

5.2 Neolithic (c3500 - c2000 BC) and Bronze Age (c2000 - 600 BC)

- 5.2.1 Scatters of worked flint deriving from these periods have been recovered from the development area, presumably as a result of disturbance of archaeological strata by ploughing. Excavations to the south outside of the development area have produced evidence of a multi-phase Neolithic settlement (c2500 BC) with associated arable cultivation (Herne 1984).
- This settlement was succeeded by a Bronze Age round barrow which formed part of a substantial late Neolithic/Bronze Age ritual landscape. It shows as cropmarks of three cursuses (rectilinear enclosures, formed by ditches), a possible long barrow enclosed within one of the cursuses, and a number of ring ditches. Recent aerial photographs, and that such survival presumably also extends into the application area. Recent aerial photography has revealed a large enclosure formed by rows of pits (Appendix C). This feature cannot be dated



- with any accuracy, but is likely to be prehistoric. Recent archaeological evidence obtained adjacent to the application area (Kemp 1993, Macaulay 1994) confirms the survival of features seen on the
- 5.2.3 Recent fieldwalking revealed late Mesolithic / early Neolithic flint tools and cores within the development area. Finds concentrations are illustrated on Figure 3.

5.3 Iron Age (*c*600 BC - AD 43)

5.3.1 Evidence for Iron-Age ploughing and pottery dating to this period were recorded during excavations south of the development area (Herne 1984). It is possible that some of the ditches or trackways showing as cropmarks may also be Iron-Age. Cropmarks west of the site (now covered by housing) may indicate settlement of Iron Age or Romano-British date (Palmer 1993).

5.4 Romano-British (AD 43 - 410)

- 5.4.1 A late Romano-British settlement or villa is known to exist north of the site (Alexander 1993) and trackways and ditches recovered in other excavations on the perimeter of the development site (Kemp 1993 and in prep., Macaulay 1994) are probably associated with agricultural activity across most of the area under investigation.
- 5.4.2 The putative Roman villa cropmark on the development site (SMR 4253) remains enigmatic, but the small enclosure showing as a cropmark at TL 1803/5874 may be of this date, although no artefactual evidence has been found to support this contention.

5.5 Anglo-Saxon (AD 410 - 1066)

- 5.5.1 Five, possibly pagan, burials (of 7th century date at latest) have been excavated. These were dug into a former Bronze Age barrow (Herne unpublished), which lies to the south of the development area. Rubbish pits, at least one post-built building and a possible well (all of 8th 10th century date) were also found to the south of the development area. This may represent a farmstead-type settlement (Spoerry forthcoming). Further Anglo-Saxon artefacts have been recovered by metal detecting during construction of the A428 (SMR 11496).
- 5.5.2 Excavation of a large pond adjacent to this site and within the development area in 1994 may have resulted in some disturbance to archaeological remains associated with Hernes site. However, repeat fieldwalking did not reveal any finds concentrations of this period in this area.
- 5.5.3 The settlement of Eynesbury is included in Domesday Book in 1089.
- 5.5.4 Buildings and 40 burials of the Anglo-Saxon period were found during excavations at Eaton Socon castle on the opposite bank of the Ouse.
- 5.5.5 In combination, these suggest a managed and heavily exploited landscape in this period within this part of the Ouse valley generally, during the Anglo-Saxon period.

5.6 Medieval (AD 1066 - 1520) and Post-Medieval (AD 1520 - present)

- 5.6.1 Medieval ridge-and-furrow cultivation has been identified in excavations by Herne (1984) and Kemp (1993). Documentary and cartographic evidence of the 16th 18th centuries indicate that the development area was covered by a well-developed open field system, divided by "balks" and sub-divided into strips (Figure 4), and it is probable that this system had been established in the Anglo-Saxon or early Medieval periods.
- 5.6.2 The development area falls within the field known as "Sand Field" (a name which may be suggestive of the nature of the soil) and documentary evidence indicates that this land was predominantly in arable use (Way 1993). The enclosure map of 1800 included an area of meadow immediately north of the development area (Figure 5).
- The open fields were enclosed and the strips incorporated into larger parcels of land in 1800. At some time between that date and 1882 the meandering stream to the south-west of the site was straightened and a weir constructed. Also Eynesbury Fields Farm (now Barford Farm) was constructed. There is no evidence for any preceding settlement in this area.

6. ARCHAEOLOGICAL POTENTIAL

- 6.1 Existing archaeological knowledge suggests that the development area was the scene of human activity and settlement from the Mesolithic onwards and that traces of each period of use have probably been preserved despite damage caused by prolonged ploughing.
- 6.2 The gravels underlying the development area have never been examined archaeologically, but such deposits elsewhere in the region and further afield are known to contain Palaeolithic artefacts. Activity sites of the same period are often associated with the types of deposits left by a migratory river system such as that followed by the Great Ouse in this area. Lack of current evidence does not necessarily indicate lack of activity on site at this early period.
- 6.3 The cropmark evidence is unlikely to reflect all the archaeological remains on the site. Some types of activity or soil do not produce cropmarks. Archaeological excavation in areas near to the site revealed structures and evidence not disclosed on aerial photographs (Kemp in prep.). Of the occupation evidence excavated by Herne, only the Bronze Age ring ditch showed as a cropmark. Evidence for Mesolithic, Neolithic and Anglo-Saxon occupation was only found by excavation (Herne 1984).
- 6.4 Cropmarks of archaeological features do not show in areas of old water-courses or palaeochannels where the soil is deeper. Kemp showed that alluviation seemed to be a largely prehistoric phenomenon, dating to after the Neolithic, although disturbance caused by later ploughing may have destroyed evidence for later phases of flooding (Kemp, in prep.).
- 6.5 Macaulay's excavation showed that the Neolithic cursus was sealed by alluviation and that this alluviation was cut into by Romano-British activity (Macaulay 1994). The incidence of alluvium across the site is, therefore, likely to have a bearing on the preservation of the earlier phases of archaeology and may have cushioned the remains of those periods from the full impact of later ploughing. However, Kemp (1993), has shown that there is

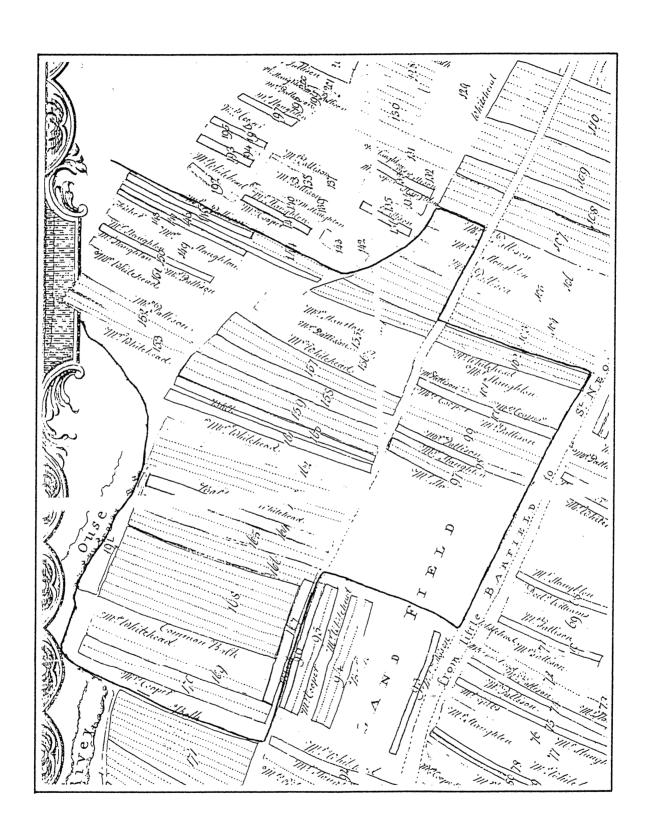


Figure 4 Extract from the Estate Map of Eynesbury 1757

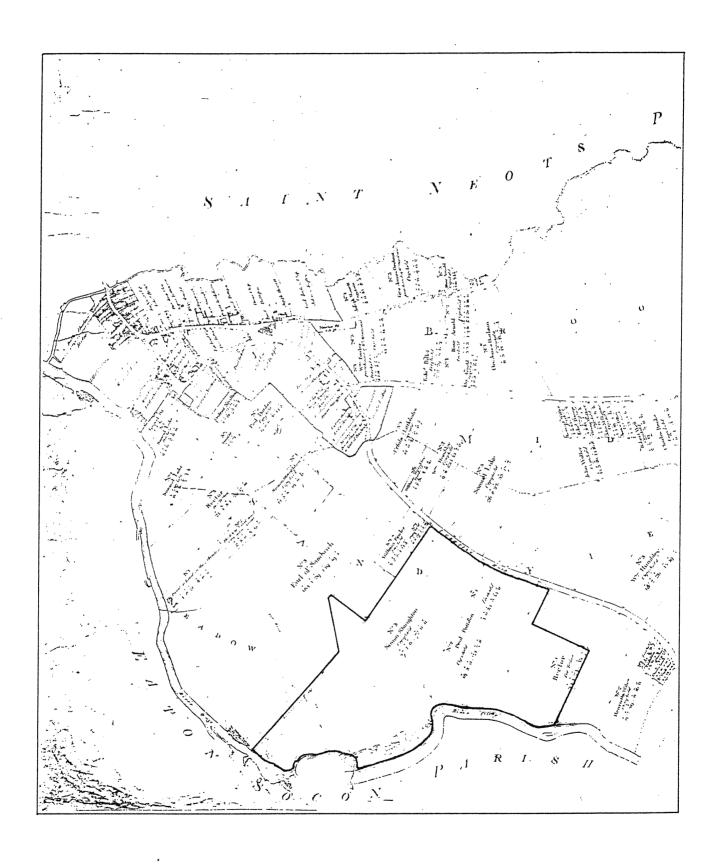


Figure 5 Extract from the Enclosure map of 1800

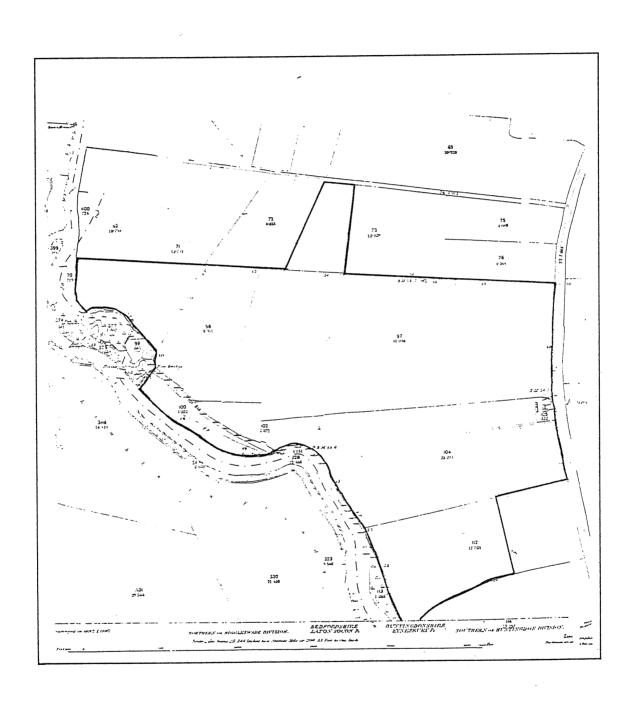


Figure 6 Extract from 1882/7 O.S. map

- considerable lateral variation in alluvial sedimentation. It is therefore, likely that preservation will be variable across the site, dependent on the of overlying alluvium and the impact of medieval cultivation.
- Most excavations have taken place at some distance from the modern course of the river. Kemp's 1994 excavations uncovered an earlier palaeochannel, but it is probable that flooding episodes were more frequent and occurred more recently within the meander that the river takes towards Eaton Soton castle. While the wetter environment may have deterred human settlement, increased deposition of alluvium may mask archaeological evidence and account for the absence of cropmarks in the north-western part of the site.
- 6.7 Increased alluviation and deeper soils in palaeochannels will also serve to preserve archaeological remains and evidence of past environments from later plough damage.
- 6.8 Medieval and more recent ploughing is likely to have disturbed much of the archaeology within the proposed development area. The ridge and furrow patterns associated with a medieval open field system have been largely destroyed by more modern ploughing. Upstanding earthworks that would have accompanied the cursuses, barrows and other components of the Neolithic/Bronze Age ritual landscape within the development area may also have been ploughed away. However as discussed before (6.5) the impact of ploughing may have been reduced by an overburden of alluvium.
- 6.9 Excavations adjacent to the development area have shown that cut, datable features such as ditches of the Neolithic and Bronze Age period, may survive to a sufficient degree to determine their form, sequence and, possibly, function.
- 6.10 Similar remains to those found at Eynesbury have been found at Brampton, Huntingdon Racecourse 8.5 miles to the north and others recently excavated near Godmanchester (McAvoy 1994). Similar ritual landscapes have been researched at Raunds, in Northamptonshire and at Cardington-Cople, Bedfordshire. These ritual landscapes are known to contain burial monuments, cursuses, pit alignments, mortuary enclosures. Similar archaeological remains could be present within the development zone.
- 6.11 The presence of palaeochannels (old water courses) is indicated by excavation and cropmark evidence. Such features may have been destructive of archaeological remains which pre-dated the water course, but they also attracted human activity, the traces of which may have then been sealed below later alluvium. Alluviation may also seal buried soils which, through the use of micromorphological techniques, can identify the palaeo-environment occupied by prehistoric populations.
- 6.12 Pottery (including fragile prehistoric ceramics) has been recovered from excavations in the area, as have artefacts made of bone and metal.
- 6.13 Organic material has not been recovered from recent excavations and its survival in the development area is open to question. However palaeochannels within the development area may contain important palaeoenvironmental evidence, associated with the development of early Holocene landscapes.
- Water was encountered in auger hole 14 at a depth of 0.66m below the modern ground surface and in hole 9, 1.15m deep, but in each case it proved impossible to penetrate further. Local verbal information (reported in Macaulay 1994)

suggests that the local water table has fallen significantly since the introduction of modern pumping stations within the last ten years. This could have major implications for the preservation of any environmental deposits.

7. ARCHAEOLOGICAL IMPLICATIONS OF THE DEVELOPMENT PROPOSAL

- 7.1 The development site includes cropmarks of Neolithic date which seem to represent an island of archaeological data left within an area that has undergone large-scale development and mineral extraction in the recent past.
- 7.2 Recent fieldwalking suggests that some prehistoric sites may only survive in the topsoil. This may be supported by the absence of archaeological features on aerial photographs for these areas. However, the small scale of human impact in such areas may not have been reflected in the crops when these photographs were taken. Any sites contained solely in the topsoil are very sensitive to any future development, or change of land use.
- 7.3 The development proposal includes the construction of houses, shops, factory units and community facilities. The foundations of all these structures are likely to penetrate to a level where they will impact on any surviving archaeology. Archaeological features are known to survive within the outline footprint of these development zones.
- 7.4 The provision of roads and all necessary services is likely to have an even greater impact as they are likely to involve deeper excavation.
- 7.5 Recent excavations outside of the development area have shown that archaeological deposits survive on adjacent land at depths of 0.25 0.30m (Macaulay 1994) and 0.40 0.50 (Kemp 1993) below the modern ground surface. Development including tree planting may therefore have implications for any buried archaeological remains on this site at a relatively shallow levels. Archaeological features are known in principle to survive within the areas proposed for development but the importance of particular features and the extent to which they have been affected by modern ploughing can not be assessed on the information presently available.
- 7.6 Development of the areas proposed for moorings and a conservation pond will involve significant soil excavation. This will take place in an area where deeper soils produced by palaeochannels are likely to have aided better preservation of archaeological deposits from truncation by ploughing. The operation is likely to penetrate into the gravels which may contain the fragile evidence of Palaeolithic and Mesolithic activity.
- 7.7 Areas marked as public open space, could also be subject to disturbance during landscaping activities, although this will be dependent on the final development scheme.
- 7.8 The construction work will impact upon surviving archaeological remains, especially following periods of high rainfall of flooding, when heavy plant may sink below the base of the plough soil.
- 7.9 Areas of public open space are marked on the plan, but it is likely that these areas will also be subject to damage during construction, landscaping and the provision of services to surrounding areas. They may also be the subject of

- future development proposals and, even if left untouched into the distant future, will be left as small islands of intact archaeology approximately 25% of the total development area with no landscape context.
- 7.10 The fields at the north-west corner of the development area and the "island" do not appear to be the subject of any proposed development.
- 7.11 If the development outlined on the overall concept plan goes ahead then considerable destruction of surviving archaeological deposits is likely over much of the development area, either as an immediate effect or as a long-term result.

8. PROPOSALS FOR ARCHAEOLOGICAL FIELD EVALUATION

- 8.1 The suite of assessment techniques used so far has highlighted the potential and sensitivity of the archaeological remains on the development area. A number of aspects of the archaeology of the site are not responsive to the techniques used as part of this desktop assessment. However, in order to formulate a mitigation strategy it is necessary to undertake further evaluative work.
- 8.2 Excavation has shown that aerial photography provides incomplete picture of the quantity, quality nature and survival of archaeological deposits. Parts of the development area have not produced cropmarks of archaeological features, this maybe the result of soils being unresponsive to cropmark production, or the types and size of archaeological features, or their burial by alluvium.
- 8.3 Techniques used so far have only been partially successful in identifying the extent and nature of alluvial deposits. The potential for the preservation of archaeological and environmental remains, particularly in the area of the putative palaeochannels requires further clarification.
- 8.4 A number of techniques could be used to achieve the information outlined in 8.3. A mechanical boring rig would be better equipped to penetrate the alluvium/subsoil, particularly within the palaeo-channels, but would not provide detailed information on the status and preservation of buried archaeological and ecofactual remains. Trenching or test pitting may therefore provide the most effective means of recording the stratigraphic sequence.
- 8.5 Magnetometer and resistivity surveys were carried out prior to Alexander's excavations to the north of the site (Alexander 1993) and proved quite successful in locating and defining cut archaeological features (these techniques cannot date features or quantify artefactual or ecofactual survival). However, Macaulay found a magnetometer survey inconclusive further south, he attributes this in part to the supposed use of the area as market gardens earlier this century (local verbal information reported in Macaulay 1994). Alluviation and medieval cultivation would also reduce the effectiveness of any survey. Resistivity and magnetometer surveys carried out on similar geology (first terrace river gravels overlain by alluvium of varying depth) at Thrapston Road, Brampton in 1992 proved of limited use (Malim and Mitchell 1993).

- 8.6 It is proposed that further archaeological evaluation take the form of a number of machine cut trenches and/or areas, located to section and sample the palaeochannels and other areas of deeper soil, particularly in the area where there is the greatest likelihood of disturbance from the existing development proposals. Investigation should also be directed towards the definition and evaluation of features apparent in the cropmark survey, such as the enclosure formed by the pit alignments, the enclosures associated with it and their relationship to other archaeological features such as the cursuses. Such an operation would also have the advantage of investigating the survival of buried soils and of archaeological features which do not show up as cropmarks.
- 8.7 The evaluative excavations could be combined with a borehole survey (undertaken by a mechanical rig under archaeological supervision), trenching or test pitting to establish the depth and extent of alluvial cover, and the potential for the preservation of palaeoenvironmental data.
- 8.8 Ideally, the evaluative phase should take place as soon as possible after harvesting in order to evaluate the survival of ecofacts at a time when the water table is low and, if possible, to define the effect of the perceived recent dewatering of the site. Alternatively during spring when the soil strength of the alluvium will be reduced making machine and hand excavation more efficient
- 8.9 Evaluations should aim to fully evaluate the archaeological and palaeoenvironmental deposits within the application area. The results of such work should define the nature and condition of surviving deposits within the application area in order to formulate an appropriate mitigation strategy.

ACKNOWLEDGEMENTS

The author wishes to thank Phillips Planning Services of Bedford and the Trustees of the Banks Family Settlement for commissioning and funding the project, and to John Phillips and his staff for arranging access to the site.

Louise Austin, Development Control Officer at the Cambridgeshire County Council Archaeology Section, compiled the design brief.

At the Archaeological Field Unit, Tim Malim acted as the Project Manager and Steve Kemp did much of the initial work in setting up the project. The author is indebted to these staff and Steve Macaulay for freely offering their specialist knowledge of the local archaeology. Dawn Griffiths assisted with the auger survey and Melodie Paice prepared the illustrations under the supervision of Caroline Gait. Steve Kemp and Scott Kenney who undertook the programme of fieldwalking and Carole Fletcher and Bob Hatton who undertook many of the amendments which led to the completion of this report.

The staff of the County Record Office at Huntingdon provided help and advice with documentary sources.

Specialist reports were undertaken by Rog Palmer of Air Photo Services who completed the Aerial Photographic Assessment, and Tim Reynolds who produced the lithics report.

C R Hazlehurst (Project Controller), on behalf of Tesco Stores Limited, gave consent for the use of aerial photographic data commissioned by them in 1993. We wish to acknowledge the assistance of Karen Howard of Berwin Leighton, Solicitors, for arranging this consent.

BIBLIOGRAPHY

- Alexander, M. 1993. Roman Settlement Evidence at Ernulf School, St Neots, Cambridgeshire County Council Archaeological Field Unit Report No. 91
- French, C.A.I. and Wait, G.A. 1988. An Archaeological Survey of the Cambridgeshire River Gravels. Cambridgeshire County Council
- Herne, A. 1984. Eynesbury Excavations. (Unpublished) Held by the County Archaeological Office, Cambridgeshire County Council
- Kemp, S. 1993. Prehistoric and Roman Archaeology at Barford Road, Eynesbury. Cambridgeshire County Council Archaeological Field Unit Report No 90
- Kemp, S. in prep. Archaeological Excavations at Barford Road, Eynesbury, St Neots. Cambridgeshire County Council Archaeological Field Unit
- Macaulay, S.P. 1994. Archaeological Investigations on a Proposed Synthetic Pitch at Ernulf School, Eynesbury. Cambridgeshire County Council Archaeological Field Unit Report No A41
- McAvoy, F. 1994. Godmanchester, Cambs in CAS News 1, English Heritage
- Malim, T. and Mitchell, D. 1993. Neolithic Ditches and Iron Age Settlement at Thrapston Road, Brampton 1992. Cambridgeshire County Council Archaeological Field Unit Report No 81
- Palmer, R. 1993 TL 1858: Barford Road Eynesbury, Aerial Photographic Assessment. Air Photo Service Cambridge.
- Spoerry, P. forthcoming. Estate, Village, Town? Roman, Saxon and Medieval Settlement in the St Neots Area, in *The Archaeology of the Ouse Valley* (eds. M. Dawson and A. Shotliff), CBA Res Rep, York.
- Way, T 1993 Documentary Research for Archaeological Evaluation at Barford Road in S. Kemp *Prehistoric and Roman Archaeology at Barford Road, Eynesbury*. Cambridgeshire County Council Archaeological Field Unit Report No 90; 12, 1993

APPENDIX A

SMR References (Figure 2)

Within the development area

SMR No 373 373a 373b 376 377	Grid Ref TL 177/585 TL 177/585 TL 177/585 TL 181/582 TL 181/583 TL 182/582	Details Dense scatter of worked flint incl. Mesolithic Leaf-shaped arrowheads. Neolithic Barbed-and-tanged arrowheads. Bronze Age Cropmark of ring ditch Scatter of worked Mesolithic flint Cropmarks of ring ditch, linear ditches, enclosures +
381	TL 181/587	?long barrow Cropmarks of parallel linear ditches, oval ditch +
447 512 1308 3542 4253 6150 11143	TL 181/582 TL 178/585 TL 1827/5815 TL 184/583 TL 1785/5855 TL 183/585 TL 184/583	other ditches Scatter of Neolithic/Bronze Age worked flint Scatter of Mesolithic worked flint Prehistoric flint flake Prehistoric worked flint Cropmark of large Roman courtyard villa Cropmark of a cursus Evaluation. Interrupted ring ditch and trackway of prehistoric date
11496	TL 1845/5821	Anglo-Saxon brooch and girdle hanger
Within the vi	cinity	
374	TL 1733/5890	Eaton Socon castle (Medieval), sealing Anglo-Saxon buildings and burials
389	TL 181/591	Cropmark of pits, circles and small square fields. Dense scatter of Romano-British pottery
402	TL 186/592	Excavation (1960) of small 12th century building
514 684	TL 176/593 TL 1799/5920	Scatter of Mesolithic flint Concentration of Romano-British pottery and
004	11. 11/2/13/20	building debris. Poss. villa
2201	TL 179/591	Cropmark of parallel linear ditches
3812	TL 1875/5864	Bronze finger ring. Romano-British or Medieval
5689	TL 187/583	Cropmarks of field-system, enclosures and linear ditches
5690	TL 188/580	Cropmark of enclosure and ditches
10198d	TL 181/581	Romano-British pottery
10198e	TL 181/581	Anglo-Saxon ?settlement. Rect. structure, 5 graves,
10198f 10198g 10898 11290	TL 181/581 TL 181/581 TL 182/590 TL 183/593	numerous artefacts Medieval ridge and furrow Post-medieval pottery and clay-pipe Excavation. Romano-British settlement and road Romano-British pottery

500m - 1 Kilometre away

391	TL 181/596	Excavation (1934). Conygeare Romano-British
		earthwork
392	TL 181/597	Anglo-Saxon pot. Poss. cremation cemetery
393	TL 1812/5983	Anglo-Saxon loom-weights
394	TL 182/595	Scatter of Romano-British finds
396	TL 183/595	Conygeare and Romano-British activity in and
2060	TT 100/505	around Eynesbury Romano British building with hypocoust and infant
396a	TL 180/595	Romano-British building with hypocaust and infant burial
396b	TL 181/593	Scatter of Romano-British pottery + building debris
396c	TL 1830/5955	Earthworks of rect. Romano-British enclosure.
		Coins and pottery
396d	TL 184/598	Roman coins
397	TL 183/595	2 polished stone axes + Bronze Age pottery
398	TL 1830/5966	Excavation (1960) of early 12th century building
399	TL 1830/5993	"Tudor House". Post-medieval building
400	TL 184/597	"Nag's Head". Medieval building
401	TL 1839/5984	Parish church of St Mary
403	TL 188/593	Excavation (1966-7). Late Iron Age/Romano-British
		settlement
404	TL 1898/5933	Mesolithic hammer stone
515	TL 1765/5998	"Ford House". Medieval house
1817		Neolithic flint blade
3543	TL 192/583	Prehistoric flints
9972	TL 192/585	Cropmarks of enclosures
10064	TL 173/581	Cropmark of 2 enclosures

APPENDIX B

EVALUATION RESEARCH OBJECTIVES

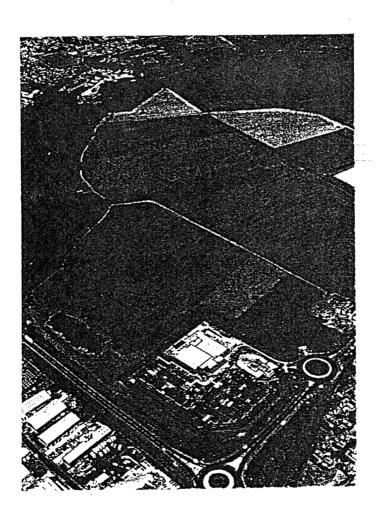
- Any future work in this area should aim to fully evaluate the archaeological and palaeoenvironmental deposits with the specific objective of:
- 1.1 Defining the survival of archaeological and ecofactual material of all periods in the development area.
- 1.2 To systematically collect archaeological and palaeoenvironmental evidence relating to the human impact on the environment in this locality, an area where such evidence is at a premium due to destruction by large-scale development, external to the application area.
- 1.3 To define the extent and depth of alluviation across the site, and to assess its influence on the survival of archaeological and ecofactual deposits.
- 1.4 To assess the potential of the deeper soils and palaeochannels as repositories of palaeoenvironmental and archaeological data which will aid in the development of a landscape history for the area.
- 1.5 To investigate the possibility of the survival of Palaeolithic occupation debris and associated environmental data.
- 1.6 To investigate the survival of buried soils.
- 1.7 To define the limits of any preserved remains of the Anglo-Saxon settlement at the south of the site.
- 1.8 To design a mitigation strategy which will minimise the impact of development on the archaeological resource, either by preservation or by excavation as appropriate
- Any further work should consider national and local research frameworks in which the site may be situated. For example:
- 2.1 The definition of the palaeohistory of the river regime, through analysis of palaeoenvironmental and palaeosedimentalogical remains in this area, and to assess the interrelationship between the changing water courses and human activity on the site, and in the wider context of the Great Ouse river system.
- 2.3 To define the extent and nature of the Neolithic/Bronze Age ritual landscape and to explore its relationship to other contemporary land uses and to land use prior to and subsequent to its formation.
- 2.4 To define continuity and dislocations in settlement and types of land use between different periods.
- 2.5 To quantify the impact of modern agriculture and the lowered water table on archaeological and ecofactual remains of earlier periods.

BARFORD ROAD, EYNESBURY CAMBRIDGESHIRE

AERIAL PHOTOGRAPHIC ASSESSMENT: Additional Archaeology and Natural Features

Rog Palmer MA MIFA

July 1995



Photograph c95.30.13 Courtesy of and copyright to @Air Photo Services

COMMISSIONED BY

Cambridgeshire County Council, Archaeological Field Unit. Fulbourn Community Centre, Haggis Gap, Fulbourn, Cambridge CB1 5HD

BARFORD ROAD, EYNSBURY,

CAMBRIDGESHIRE:

AERIAL PHOTOGRAPHIC ASSESSMENT ADDITIONAL ARCHAEOLOGICAL AND NATURAL FEATURES

Rog Palmer MA MIFA

INTRODUCTION

Most of the archaeological features in this area were mapped for a previous assessment in August 1993. The area then examined has been enlarged for this assessment and the brief expanded to include information on natural features. The text of the earlier report is appended (Appendix 2).

This assessment of aerial photographs was commissioned to examine an area of some 41 hectares in order to add any additional archaeological features recorded during flights since 1993 and to identify and map natural features and thus provide a guide for field evaluation. Mapping was to be at 1:2500.

ARCHAEOLOGICAL AND NATURAL FEATURES FROM AERIAL PHOTOGRAPHS

Sub-surface archaeological features – including ditches, pits, walls or foundations, and banks – may be recorded from the air in different ways in different seasons. In spring and summer features of natural and anthropogenic origin may show through their effect on crops growing above them. Such indications tend to be at their most visible in ripe cereal crops, generally in June or July in this part of Britain, although their appearance cannot accurately be predicted and their absence cannot be taken to imply evidence of archaeological absence. In winter months, when the soil is bare or crop cover is thin (when viewed from above) features may show by virtue of their different soils. Upstanding remains are also best recorded in winter months when vegetation is sparse and the low angle of the sun helps pick out slight differences of height and slope.

All archaeological features mapped for this assessment are the sub-surface remains of former pits and ditches which have been identified as differences in crop growth. Interpretation and mapping has translated this crop-marked evidence back into its archaeological reality.

Natural deposits can cause similar differences in crops and appear as startling colour changes in bare winter soils. All photographs examined for this assessment were of fields under crop and thus differences in tone (or colour) or changes in crop growth were sought by the photo interpreter. Deeper soil advances cereal growth and paths of former water courses can be identified in this way. The edges and extents of such features tend to vary from year to year with the amount of ground moisture content. Mapping of former watercourses for this assessment

indicates their maximum recorded extents. Smaller patches of deeper soil, or differences in soil content, have not been shown.

PHOTO INTERPRETATION AND MAPPING

Search at the Cambridge University Collection of Aerial Photographs (CUCAP) showed no photographs had been taken of the area since the previous assessment. Relevant prints were reexamined for the present revision. Oblique photographs by Air Photo Services provided additional information on which the majority of this assessment was based.

All photographs consulted are listed in Appendix 1.

All photographs were examined by eye and under slight (1.5x) magnification, viewing them as stereoscopic pairs when possible. Vertical photographs were also examined stereoscopically using a 1.5x magnification stereoscope. Interpretations were marked on overlays to individual prints following procedures described by Palmer and Cox (1993). All rectification was computer assisted and carried out using AERIAL 4.2 software (Haigh 1993).

AERIAL computes values for error of control point match between the photograph and map. In all rectifications prepared for this assessment the mean of these was less than ± 2.0 m. Rectified and plotted output was combined to form the basis of the hand-drawn overlays that accompany this assessment.

COMMENTARY

Archaeological features mapped for the 1993 assessment remain largely unchanged as a result of this present work. Comments made at that date remain valid and will be found in Appendix 2. Only new or changed features and relationships plus those of non-archaeological origin are noted below.

Archaeological additions

Most significant are the pit rows which extend the previously recognised few metre length to form three sides of what may have been a large unit of land allotment. The pits do not form a continuous row, being discontinuous on the west and apparently intermixed with ditch lengths on the east. The discontinuity on the west side is almost certainly due to the inability of crop marks to form above the pits where they cut through (?or are now under) the deeper soil of a former water course. On the east side ditches have been mapped when pits cannot be distinguished on the aerial photographs. Similar occurrences have been noticed elsewhere in Britain and may be due to the actual or apparent fusing of crop marks above individual pits and/or the angle of view. It is likely that the complete lengths were once unbroken rows of pits. This feature shows clear relationships with one of the cursus monuments (at TL18095834 and TL18145855) and (possibly) with a small ring ditch (TL18035834). In the northern part of the mapped area its course is parallel with the ditches of another cursus (area TL181587) and may suggest contemporaneity or that one feature remained extant when the

other was constructed. Traces of possible ditches (at TL18135859) appear to form parts of what may be a curvilinear enclosure that is attached to the pit row. The evidence for this on the photographs was poor but acceptable as a possible feature. The relationship of the western pit row to the former watercourse is of interest and reflects a similar path and relationship to that recently excavated by Chris Evans (Cambridge Archaeological Unit) at Meadow Lane, St Ives [no reference to hand: work done September 1994].

A short length of pit row can be seen in the background of three 1995 photographs at TL17775853. This may represent a further land division of which additional lengths may be identified on photographs taken on future dates or if topsoil is removed.

A small enclosure has been recorded within the pit-row 'enclosure' at TL18035874. This lies some 50m west of the cursus with its internal oblong/ovoid feature. Its shape is unusual, comprising a rectangular part at the north-east and a rounded end at its south-west. These parts align on the south side of the enclosure but have a distinct step on the north. In plan it is more reminiscent of the form of a building but the crop marked information indicates a sub-surface cut feature. The feature may be ditched or may remain as robbed foundation trenches. Very faint marks indicate it to be enclosed – at least in its southern part – by a narrow ditch or a palisade trench. This enclosure is superimposed by, or on, the deeper soil of a former water course.

Several lengths of linear ditch have been mapped. Many of these add to those identified on earlier photographs. The 1:2500 plan also shows a close-spaced pair of ditches near the northeast corner of the assessment area at TL18355872. These were recorded in a corner of only one 1995 photograph. It is uncertain whether the marks are those of crop-marked ditches or of recent vehicular movement. Their width is certainly similar to that of adjacent tractor tracks but they appear to be tonal marks in the crop rather than the bare soil below 'tramlines'.

Natural features

A separate overlay has been prepared to show non-archaeological features. These are mostly areas of deeper soil but include some periglacial cracks and short lengths of recent boundary ditch. Most of the deeper soil represents courses of former water courses some of which over-or under-lays archaeological features. It should be noted that work in the St Ives area has demonstrated that not all such channels are of the same date (C Evans, pers comm).

One small area (at TL17785848) creates an extremely dark-toned crop mark that is likely to indicate either deeper, or different, soil. It is an irregular shaped feature which links to the other deeper soil of a water course and may identify a former pool.

The non-archaeological overlay varies the density of stipple to imitate the darkness of the crop marks above the natural features. This may indicate differences in soil depth although it should be remembered that on different dates these features have produced marks of different extent. As noted above, the plan shows the greatest extent of the former water courses. Small areas or slightly deeper patches of soil are even more changeable from year to year. Most are likely to represent very insignificant changes in depth and have not been mapped.

No information, archaeological or non-archaeological, was recorded on any of the photographs examined for the modern field centred TL17575872 nor for the northern salient, TL17915883.

REFERENCES

Haigh, J.G.B., 1993. A new issue of AERIAL - Version 4.20. AARGnews 7, 22-25.

Palmer, R. and Cox, C., 1993. Uses of aerial photography in archaeological evaluations. IFA Technical Paper 12.

APPENDIX 1

Aerial photographs examined

Source: Cambridge University Collection of Aerial Photographs

Oblique photographs

YK 9-11	18 June 1959
ACA 88-91	14 July 1960
ADO 53	6 July 1961
BGD 31-33	12 July 1971
BXU 86-87	22 June 1976

Vertical photographs

RC8-BJ 19, 28	21 May 1976	1:4500
RC8-EI 67-68	11 May 1982	1:10000
RC8-EI 74-76	11 May 1982	1:10000
RC8-KnBF 201-201	12 June 1988	1:10000
RC8-KnBF 212-213	12 June 1988	1:10000
	1200000	

Source: Air Photo Services

Obliques

C95.20/27	22 June 1995
C95.20/29-30	22 June 1995
C95 30/12-16	28 June 1995

APPENDIX 2

Report prepared in August 1993 for Cambridgeshire Archaeology

TL1858: BARFORD ROAD, EYNSBURY, CAMBRIDGESHIRE AERIAL PHOTOGRAPHIC ASSESSMENT

Rog Palmer MA MIFA

INTRODUCTION

Photo interpretation was undertaken to produce a 1:2500 plan showing the area of and around that proposed for development. This allows the development site to be viewed in its archaeological context and may thus assist understanding of any features located through field investigation. The aerial photographs which record the development area show little evidence of archaeological or non-archaeological features, but reasons for this are given below and it is likely that more will be found on the ground than can be detected from the air.

PHOTO INTERPRETATION AND MAPPING

Three sources of aerial photographs were searched for cover of the area: the library of the Cambridge University Collection of Aerial Photographs (CUCAP), the National Library of Aerial Photographs (NLAP), and photographs resulting from RCHME funded research by Air Photo Services (APS). The latter two sources held no significant photographs of the area although both had overflown parts of it (NLAP on 22 July 1971; APS on 22 July 1991 and 28 June 1992). The CUCAP photographs were taken on seven occasions between June 1959 and June 1976 and all pre-dated construction of the new route of the A45. Verticals at CUCAP were not examined.

Comment is made below on a site-by-site basis (following SMR numbering) and individual photo numbers and dates are given for each site. Interpretation and mapping was carried out following procedures described by Palmer and Cox (1993). Prints were examined and interpreted using 1.5x magnification and, whenever possible, were viewed as stereoscopic pairs. Confirmation of slight or suspect features was sought on other prints when these were available. All rectification was carried out using AERIAL 4.2 software (Haigh 1993) and the mean error values for control point matching were less than ± 2.0 m although some individual points exceeded this. Control information on the photographs was generally poor — most photographs were high obliques taken from low altitudes — and correlation of location could not always be made by comparing two or more rectifications of the same area. Fortunately the accuracy of features within the development area itself was good (mean control match below ± 1.0 m) and the alignment of the double ditches was confirmed by plots of features to the east and west. Any slight shifting in

location of the adjacent features will not greatly affect archaeological understanding or reference to context.

To retain clarity of the archaeological features planned, areas of deep soil have not been mapped for this assessment nor have frost cracks or some possible but extremely dubious archaeological features. The reasons for these omissions are to retain the clarity of archaeological information and because they did not specifically affect the development area, most such natural features being among the 'context' sites.

COMMENTARY

SMR 6150. Centred TL183584

Photographs examined:

YK 9-11

18 June 1959

Part of this site is covered by the northern part of the development area.

The modern field is crossed by a pair of parallel ditches which extend further to the east and west. The complete recorded length of these ditches shows a very slight curve but this is barely noticeable. There is slight dog-leg kink in the southern ditch which initially changed the distance between the ditches. It is not matched in its northern pair and there is the slightest suggestion of two short lengths of ditch continuing the broader course of the southern ditch. Parts of the western edge of the modern field show traces of what are taken to be ridge and furrow traces. The alignment of these is close to that of the reverse S-shaped field boundary to the south and they are probably remnants of furlongs which extended to that boundary.

North of the parallel ditches, and lying approximately perpendicular to them, is a possible archaeological feature although this is more likely to be of geological origin. A ring ditch, some 13m in diameter, has also been identified but may not be archaeological. The whole field, under the crop conditions of 1959, showed extensive evidence of frost pitting (not mapped). This evidence of permafrost conditions, and differences in crop mark development, adds to the suggestion that the above two features are probably non-archaeological.

The field to the south (centred TL183582: see SMR 376 and 378) continues the development area within which aerial photographs show no crop mark evidence due to its suspected cover of deeper soil. There is no clear evidence for the continuation of this deep soil into this field (TL183584) although the east side and south-east corner may prove to have deeper soil cover than elsewhere.

SMR 376 and 378. Centred TL182582 and TL181584

Photographs examined:

ACA 88-91	14 July 1960
BGD 31-33	12 July 1971
BXU 86-87	22 June 1976

These two SMR entries divide features on the basis of modern field boundaries. They are here dealt with as a single unit (which also extends into SMR 381) which is further extended to include the whole of the modern field centred TL183582, the southern part of the development area. The area is now cut by the new A45, not shown on the plan, and has been partially excavated.

The large ring ditch is now mostly destroyed by the A45. North of it is a rectangular feature the western end of which is masked by trees and presumably terminated at, or to the east of, the River Great Ouse, some 20m distant. Possible internal ditches, some apparently sub-dividing the feature, have been identified as have adjacent features to the east which include a possible ring ditch. Superimposed on, or by, this rectangular feature is another aligned approximately north to south which is a probable cursus some 320m long (with its northern end in SMR 381).

An arc of a small ring ditch, approximately 15m in diameter, is situated west of the probable cursus and has adjacent to it a parallel ditch and pit row. These would impinge on, or be overlain by, the ring ditch is their original course extended further east of that mapped. Photographs of this area were not of the highest clarity for interpretation and no such overlap can be definitely established on them.

The parallel ditches noted in SMR 6150 extend into this area and appear to abut a similar pair of parallel ditches aligned roughly north to south on a slightly sinuous course and which themselves over or underlay the probable cursus.

The eastern part of the modern field centred TL183582 forms the southern part of the development area. It has never shown archaeological or non-archaeological features on any of the photographs examined. The photographs taken in July 1960 record the large ring ditch and the two rectangular features as strong crop marks at the west end of the field but there are no observable differences in crop growth to the east, despite the whole field being under an apparently responsive cereal crop. Photographs taken in 1971 record the field in root crop with no features showing anywhere. Those dated June 1976 record a cereal crop in the field which shows a darker area of crop over the eastern two-thirds of the field — probably reflecting an area of deeper soil and certainly recording an area with a different rate of growth to that showing good crop marks at the west end.

This probable deep soil has not been mapped as it has been assumed, on the basis of the 1976 photographs, to cover the whole of the southern part of the development area. There is no clear evidence for the continuation of this deep soil into field TL183584 to the north (indeed the crop mark evidence suggests otherwise) although the east side and south-east corner may prove to have deeper soil cover than elsewhere.

SMR 381. Centred TL181586

Photograph examined:

ADO 53

6 July 1961

By following a modern field boundary this SMR site includes only the northern end of the probable cursus, the majority of that feature being in SMRs 376 and 378. The north to south parallel ditches also extend into this area, following a slightly sinuous course until they meet a modern boundary north of which were unresponsive crops. The western of these parallel ditches was cut through or by a large rectangular feature – probably an enclosure, possibly a cursus – which is similarly lost to the north. Within this enclosure, by accident or design, is a slightly trapezoid shaped oblong ditch of a form generally assigned a neolithic date (Marsac, Scarre and Riley 1983; Loveday and Petchey 1983). Other lesser features, including part of a possible D-shaped enclosure, have been mapped within this SMR area.

SMR 5689. Centred TL186583

Photographs examined:

YK 6-9, 11	18 June 1959
YW 62-63	23 June 1959
ADO 51-52	6 July 1961
BIX 55-56	22 June 1972

A small complex of abutting and superimposed enclosures which probably identify the site of an iron age and/or Romano British settlement. The parallel ditches running through the development area (SMR 6150) can be traced to, and most probably into, this complex making it likely that the features were of different date or emphasising the probability that the mapped complex is the result of dis-synchronous construction, that its present form represents several horizontally separate stages of construction. North of the complex system is an (approximately) east to west pair of parallel ditches which, although extending further east than mapped, appear to have been 'tapped into' by a short parallel pair of ditches which physically link the east to west feature to the settlement complex.

The parallel ditches are over or underlain by a small enclosure and between that and the settlement complex are slight suggestions of another possible feature. This latter has not been mapped due to the extremely tenuous nature of the crop marks and the likelihood that they are more probably of geological than archaeological origin. As no investigation in this area has been anticipated as part of the present development it seems sufficient here to note their possibility.

The broad ditched oval feature with a single entrance on its eastern side has the appearance of a hengiform monument, adding further to the neolithic presence in the area.

SUMMARY

Use of SMR numbers to make the above commentary has tended to destroy the integrity of the planned archaeological landscape within the area examined. This can be seen to be rich in neolithic monuments among which can be suggested one (possibly three) cursus, a hengiform enclosure, an oblong enclosure and ring ditches, some of which may be contemporary. Later features, likely to be of iron age and/or Romano British date are adjacent and superimposed and traces of medieval fields covered at least part of the planned area.

Deep soil, as referred to above, can have a masking effect on buried archaeological and non-archaeological features and may retard or stop the development of crop marks which reveal these sites. Although there is no direct evidence of alignment to suggest continuity of features into the development area the complexity and density of adjacent ditched archaeological structures make it probable that some will be present in, and protected by, the noted spreads of deep soil. Field work in deep soil areas may locate features which were not recorded from the air as well as small pits or cut forms which offered no archaeological credibility during photo interpretation.

REFERENCES

- Haigh, J G B, 1993. A new issue of AERIAL Version 4.20. AARGnews 7, 22-25.
- Loveday, R and Petchey, M, 1983. Oblong ditches: a discussion of some new evidence. Aerial Archaeology 8, 17-24.
- Marsac, M, Scarre, C and Riley, D, 1983. Recent discoveries of possible neolithic long mounds in western France and their British parallels. *Aerial Archaeology* 8, 1-16.
- Palmer, R and Cox, C, 1993. Uses of aerial photography in archaeological evaluations. IFA Technical Paper 12

APPENDIX D

Flint Report (Potential for Analysis), Barford Road, Eynesbury. EYNBR 95. Tim Reynolds.

Summary.

Fieldwalking at the Barford Road, Eynesbury development site has yielded a total of 126 pieces of flint (both worked and burnt), weighing 1356g. This total came from an area of c40 hectares. The assemblage collected shows a relatively high density of material and several retouched tools were recovered. The tools include a side scrapers, truncated blades and end scrapers. Technologically, the collection is dominated by the production of blades and bladelets, with the latter more common. The material has been severely affected by ploughing and several pieces are the result of ploughs striking flint pebbles. Underlying the many altered pieces, however, is a series of tools and cores suggestive of Late Mesolithic/early Neolithic activities.

1.0 Introduction.

A total collection of 164 flints was made, this total includes burnt material, but this was relatively rare. Retouched pieces are rare and the bulk of recovered material comprises knapping debris. Cores are relatively common, whilst scrapers dominate the tool assemblage (8 out of 12 pieces). A concentration of material is apparent within the sampled area, once plough damage has been allowed for, this concentration remains notable. Whether this concentration represents a 'site' or activity focus which has been ploughed up to the surface or is an accumulation due to post-depositional processes needs to be further investigated.

2.0 Typology.

Recognisable retouched forms are rare, but the following list identifies such pieces and the quadrant from which they derive:

Tool Type	SF Number.
Flake scraper	1
Obliquely Truncated Blade	17
Thumbnail Scraper	45
Knife-scraper	50
Bilaterally retouched blade	51
End scraper	64
Retouched fragment	84
Oblique End Scraper	93
Obliquely Truncated Bladelets (2)	94
Side scraper	97
Side scraper	99
Irregular scraper	113

Typologically, this form of collection would fit a late Mesolithic/early Neolithic date, the presence of the scrapers would make the Neolithic date most likely.

3.0 Technology.

There are a number of cores present, listed by quadrant below:

Core Type	SF Number.
Flake	3
Bladelet	11
Bladelet	31
Blade core	36
Flake	43
Bladelet	59
Flake(let)	72
Bladelet	88
Bladelet	102
Flake(let)	114

Amongst the cores bladelet production dominates and this is also reflected in the collections where bladelets comprise the bulk of material collected. Some of the flakes that are present could be the result of the manufacture of the bladelet cores but making such inferences is hindered by the extensive plough damage evident throughout the collection.

4.0 Condition.

The majority of pieces show some affects of having been moved or struck by ploughing. Edge condition varies widely, some pieces have lost their edges completely, others are very fresh but these latter could result from ploughing anyway. Patination states also vary and several pieces exhibit double patinas. There are three burnt pieces, SF numbers 84, 86, 115. One of these (84) was retouched but the form of the tool is now lost to burning and damage.

Use wear analysis is not worth attempting for this collection, nor is conjoining. It may be worth further examining the materials from within the concentration to identify site/activity form but successful results are unlikely.

5.0 Raw Materials.

The materials used are fresh chalk flint with a thin cortex cover, usually in the form of small pebbles. The flint used is almost entirely grey-black in colour and relatively dense. Some brown and honey-coloured material has been used but this is rare.

6.0 Dating.

Technologically, it would be reasonable to assign the blade/bladelet series of pieces to a late Mesolithic/early Neolithic date. Typologically, the tools are not distinctive, Mesolithic to Bronze Age dates being suggested.

7.0 Potential for Analysis.

The materials collected are in secondary context and generally damaged by ploughing. It is, therefore, not considered worthwhile to undertake any further study of the material at this time. It may prove useful to integrate this collection with material from excavation at the site later and the concentration of material could be investigated further at the same time. However, use wear and conjoining are not applicable techniques as the assemblage stands at present.

GLOSSARY OF ARCHAEOLOGICAL TERMS

Anglo-Saxon: The period dating between the withdrawal of the Roman legions in 410 and the Norman invasion of 1066. Within this period various ethnic groups from northern Europe vied for control of the British Isles, including the Angles, Saxons, Jutes, Danes, and Norwegians. The latter two groups are collectively known as the Vikings and became involved in British politics from the eighth century. For most of this time England was divided up into several kingdoms, until Saxon resistance to Viking incursions led to the unification of England under Aethelstan and Alfred.

Artefact: Any object made by people. Generally, this word is used for finds such as pottery, stone tools, or metal objects, but it can be used in a much wider context in that the landscape we have today is a product of human activity and is thus an artefact itself. taking photographs the cropmark patterns can be plotted onto maps and given provisional interpretation.

Earthworks: Archaeological features that are still extant above the ground as banks and ditches, platforms, roads, ponds, canals, etc. They were either constructed of soil or became covered by it later, leaving the archaeology showing in relief.

Enclosures: An area defined by a continuous surrounding ditch. These may be enclosures around human settlements, fields, or paddocks for stock. Rectilinear enclosures are ones with straight sides and corners, whilst curvilinear enclosures are ones with rounded sides.

Iron Age: Prehistoric period c. 700 BC - AD 43 when iron was used extensively for tools and weapons. The period traditionally ends with the Roman invasions of AD 43 but in fact there was a considerable time of adjustment after this date when the Iron Age way of life continued with little change from Roman influence.

Medieval: Historic period that begins with William the Conqueror's invasion in 1066. Post-Medieval is generally considered to date from 1500.

Moat: In the medieval period enclosures *proliferated*. An area surrounded by water filled ditches would leave a platform or island on which to build a house. Several reasons have been suggested for these moated sites: defence in times of lawlessness, a ready source of water for the needs of the house and a anti-fire measure, a handy reservoir for fish and water-fowl, and in the response to the demands of fashion and prestige. These moated sites were often manors, and occasionally old manor houses are still found enclosed by their moat.

Natural: Subsoil that is unaltered in nature and location by human activity.

Posthole: A hole dug to receive a post. It can also result from the driving of a post into the ground. The latter, however, does not have a distinct fill - such as packing and a post pipe. A post pipe is the fill of a posthole which formed in the place of a removed post.

Roman. The period AD 43 - 410, when much of Britain was a province of the Roman empire. The term Romano-British is now widely used to describe the people who were native to this province during that period. AD 410 is the accepted date for the withdrawal the legions. The archaeology suggests, however, that the Romano-British culture continued to survive for some time during the fifth century.

Stratigraphy: Order and relative position of strata. Deposits in archaeological sites will be layered one on top of another, with the highest layer being the latest being the latest deposits, thus giving a chronological relationship to the layers and the artefacts within them. Features (such as ditches, pits, or walls) cut through these layers will obviously date to later events, and will in turn contain their own discrete sequence of deposits. On the other hand features that have been covered by layers are obviously earlier than the deposition of those layers that seal them.

Artefact. Any object made by people. Generally, this word is used for finds such as pottery, stone tools, or metal objects, but it can be used in a much wider context in that the landscape we have today is a product of human activity and is thus an artefact itself.

Bronze Age. Prehistoric period c. 2000 - 700 BC when bronze was used for many types of tools and weapons.

Cropmarks. Archaeological features below the ploughsoil can affect the growth of sensitive crops through moisture retention or loss. For example, the growth of cereal crops over buried ditches or pits will encourage rapid growth leading to tall, dark coloured plants, whereas walls and roads will lead to stunting and faster yellowing of the crop. These discrepancies in crop growth can be easily detected from the air, and by taking photographs the cropmark patterns can be plotted onto maps and given provisional interpretation.

Deserted Medieval Village (DMV): For various reasons medieval settlements were sometimes abandoned or shifted in location. Earthworks of the old village can often be seen showing the position of house platforms, crofts, lanes, fields and ponds.

Earthworks: Archaeological features that are still extant above the ground as banks and ditches, platforms, roads, ponds, canals, etc. They were either constructed of soil or became covered by it later, leaving the archaeology showing in relief.

Ecofact: Archaeologically recovered biological material (such as pollen, seeds and animal bones), that reflect the character of the climate, environment, human diet, agricultural practices etc.

Enclosures: An area defined by a continuous surrounding ditch. These may be enclosures around human settlements, fields, or paddocks for stock. Rectilinear enclosures are ones with straight sides and corners, whilst curvilinear enclosures are ones with rounded sides.

Medieval: Historic period that begins with William the Conqueror's invasion in 1066.

Midden. A heap or stratum of refuse (broken pots and tools, ashes, food remains etc) normally found on the site of an ancient settlement.

Moat: In the medieval period enclosures *proliferated*. An area surrounded by water filled ditches would leave a platform or island on which to build a house. Several reasons have been suggested for these moated sites: defence in times of lawlessness, a ready source of water for the needs of the house and a anti-fire measure, a handy reservoir for fish and water-fowl, and in the response to the demands of fashion and prestige. These moated sites were often manors, and occasionally old manor houses are still found enclosed by their moat.

Modern: The period since modern industrialisation, roughly corresponding to 1800 onwards.

Natural: The local subsoil that is unaltered, in nature and location, by human activity.

Palaeoenvironment: Environmental conditions that existed in the past. Reconstructed from the evidence of 'ecofacts', sediment deposition etc.

Palaeosol. A preserved soil which does not owe its origin to the existing land surface.

Posthole. A hole dug to receive a post. They can also result from driving posts into the ground. The latter, however, do not have distinct fills such as packing and a post pipe. A post pipe is the fill of a posthole which formed in the place of a removed post.

Post-Medieval: This period is generally considered to date from 1500, and is not used for dates after about 1800.

Ridge and Furrow: Medieval cultivation techniques led to a phenomenon of corrugated fields. Strips of land were allotted to individuals and a furrow was left between one person's strip and the next, leading to a corrugated ridge and furrow effect. Ridge and furrow shows up as cropmarks on air photographs and more rarely as earthworks in pasture fields.

Ring-ditch: A continuous circular ditch which is all that remains of a ploughed out round barrow, or the drainage ditch (eavesdrip gully) that surrounded a round-house.

Roman: Historic period AD 43 - 410 when much of Britain was part of the Roman empire. The term Romano-British is now widely used to describe the people of this period, as few were Roman themselves, but they were a provincial manifestation of the empire developing in a unique way. AD 410 was the date the legions were withdrawn, but the Romano-British culture continued for some time into the 5th century in tandem with Anglo-Saxon migration.

Round barrow: A Bronze Age burial mound formed by heaping up earth over a central burial. They have several forms, including numbers of encircling ditches and can have many burials in them. The first burial is known as the primary burial, subsequent ones are referred to as secondary burials. It has been suggested that these burial mounds are a way of marking tribal territories, and tney are often placed in prominent locations. They can occur in clusters known as 'barrow cemetries'.

Sites and Monuments Record (SMR): A computer and paper database maintained by the County Archaeology Office of all known historic sites and individual findspots. This system can be applied in response to any query concerning the hertiage of the county, e.g.the archaeology of a piece of land can be ascertained in response to a planning application and the archaeological requirement if needed can then be stated by the County Archaeologist.

Stratigraphy: Order and relative position of strata. Deposits in archaeological sites will be layered one on top of another, with the highest layer being the latest being the latest deposits, thus giving a chronological relationship to the layers and the artefacts within them. Features (such as ditches, pits, or walls) cut through these layers will obviously date to later events, and will in turn contain their own discrete sequence of deposits. On the other hand features that have been covered by layers are obviously earlier than the deposition of those layers that seal them.

Stakehole: As *posthole* but corresponding to a smaller piece of wood, usually forming an insubtantial structure.