Archaeological Field Unit

Prehistoric Landscape at Stowe Farm, West Deeping, Lincolnshire. Phase 3C

A Hatton

2001

Cambridgeshire County Council

Report No. N19

Commissioned by Lafarge Redlands Aggregates Ltd
Prehistoric Landscape at Stowe Farm, West Deeping, Lincolnshire
Phase 3C

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2001

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SUMMARY

Archaeological excavations at Stowe Farm, West Deeping, Lincolnshire in May 2000 were undertaken by the Archaeological Field Unit of Cambridgeshire County Council on behalf of Lafarge Redland Aggregates Ltd. The site is located at TF 100111 and consists of a 17.5 ha. extraction area where the gravel is systematically excavated and the land restored to agricultural use. This document reports on the excavations undertaken in advance of Phase 3C gravel extraction and completes archaeological field investigations which begun in 1994. Phase 3C (TF 1000 1094) was located immediately to the south east of 3B and consists of an area of 1.2 ha.

The Archaeological Field Unit was commissioned to undertake an enhanced recording brief within the area of Phase 3C. Archaeological work consisted of a pre-excavation site survey on the basis of which groups of archaeological features were prioritised for excavation.

The 2000 excavations showed a pattern of activity similar to that seen since 1994. Five groups of features were identified which included a late Bronze Age or early Iron Age farmstead, Iron Age enclosure with associated trackway linking into the late Iron Age settlement located to the north, plus evidence of smithing.

Excavations undertaken within the extraction area since 1994 seem to suggest a model of a generally open Neolithic, Bronze and Early Iron Age landscape with a major north-south landscape division and a scatter of buildings and farmsteads related to agricultural activity. The major north-south boundary may have divided the landscape for agricultural purposes and possibly controlled livestock access through to 'community stockyards' of the type identified within Fengate, Peterborough. The spatial and environmental evidence indicative of dispersed activity areas in which the small amounts of charred grain and animal bone suggest very low intensity agricultural practises. A number of ritual sites including ring ditches have also been identified. This shows that several of the major components of a typical Bronze Age landscape have been identified within the extraction area.

During the later Iron Age the landscape shows greater structure and organisation with pit- and post-defined enclosures delineating enclosed fields with associated buildings. By the later Iron Age and early Roman period these prehistoric ditch systems appear to have become obsolete and during Roman times trackways and boundary ditches were cut across the earlier fields. Following the Roman period narrow ditches were excavated on an alignment which was to be continued within the medieval field system by which time arable cultivation had come to dominate pastoralism. Although field patterns changed at enclosure arable cultivation continued as the prime land use until quarrying began.
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Appendix 2. Statement Concerning the watching Brief at Stowe Farm.
1 INTRODUCTION

Archaeological excavations at the Lafarge Redland Aggregates quarry of Stowe Farm, West Deeping, Lincolnshire in 2000 were undertaken by the Archaeological Field Unit of Cambridgeshire County Council (CCC AFU). Excavations were commissioned by Lafarge Redland Aggregates Limited and were carried out according to a specification drawn up by their archaeological consultant Dr C.E. Howlett of Phoenix Consulting (Howlett 1995). Field investigations, were monitored by J. Bonner on behalf of Lincolnshire County Council.

The site lies to the north-west of the existing Redland Aggregates West Deeping quarry and offices, to the south and west of the Barholm and Greatford Roads and immediately to the west of the Greatford Cut. To the east of the site lies King Street, a former Roman Road. The site consists of a 17.5 ha extension to the existing quarry (Figure 1). Six phases of gravel extraction have taken place across this area since 1995 with archaeological work preceeding each phase of extraction.

Prior to 1997 Tempus Reparatum undertook archaeological work at Stowe Farm, which included a desktop assessment, non-intrusive survey, field evaluation and excavation. In 1995 Tempus Reparatum undertook excavations in advance of Phases 1A and 1B extraction, this was followed in 1996 by excavations in advance of Phase 2A extraction. Since 1997 the CCC AFU was commissioned to undertake an enhanced recording brief in advance of extraction Phase 2B excavation. This report outlines the results of the 2000 archaeological work undertaken by the CCC AFU in area Phase 3C.

Phase 3C (TF 1000 1094) was located to the west of Phase 1A and south of Phase 3B and consisted of an area of 1.2 ha (Figure 1). This phase of work entailed the excavation of selected archaeological features and environmental sampling which would continue the recovery of the prehistoric archaeology at Stowe Farm and enhance the results of the excavations undertaken by Tempus Reparatum. The main aim was to recover the plan-form of the archaeological remains within the extraction area with sample excavation taking place only in special circumstances. The scope of recent fieldwork was outlined in a statement prepared in advance of this season’s excavation (Appendix 2). The series of works was accepted by Dr C. Howlett on behalf of 'Lafrage and J. Bonner on behalf of Lincolnshire County Council.
Figure 1  Site location
2 GEOLOGY AND TOPOGRAPHY

The site lies to the north of the Welland River and immediately to the west of the Greatford Cut. The surrounding area lies at about 10m OD. Within the excavation area lie terrace grovels, which are in the process of extraction. The topsoil removed during extraction is used to reinstate quarried areas as low level arable farmland.

Prior to the extraction the land-use for this area was arable whilst pasture lies on the eastern side of the Greatford Cut.

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Archaeological investigations into the development of the local landscape at Stove Farm began in 1989 with a review of the archaeological potential of the proposed quarry (Howlett 1994). Since then non-intrusive and intrusive methods of investigation have been used to evaluate the area. In 1995 the first Phase of excavations were undertaken and followed, in 1996 with Phase 2A, 2B in 1997 and 3A in 1998 (Kibberd 1996a and Kemp 1999).

The terrace grovels of the Lower Welland valley are rich in archaeological remains and particularly of those dating to the prehistoric period as shown by excavations at Bainton, Barnack and Maxey (Pryor et al 1985, Reynolds 1992). Sites of prehistoric date known to surround the extraction area include ring-ditches and barrows visible as cropmarks. One of these ring ditches lay within the extraction area and was excavated by Tempus Reparatum. Iron Age and Roman remains include an agricultural settlement at Greatford (Scheduled Ancient Monument 327) and SAM 160 a Roman settlement which lies about 300m to the northwest of the extraction area. Cropmarks extend throughout the parishes of Barholm and Greatford indicating the archaeological significance of this area and its wider importance as part of the prehistoric and historic landscapes of the Welland Valley (RCHM 1960).

Surveys specific to the extraction area include an aerial photographic assessment, which identified the presence of two ring ditches, several large pits and a number of ditches within the site. Fieldwalking failed to locate any dense artefact scatters with only 1 artefact retrieved every 9 ha; this evidence was used to suggest the absence of prehistoric settlement and therefore influenced the format of future archaeological work (Howlett 1994). The geophysical survey proved to be inconclusive due to the low magnetic variability. Whilst the cartographic survey was used to indicate that the area has been under continuous plough throughout
the historic period (Howlett 1994). Further field investigations by Tempus Reparatum suggested a period of tree cover during the Anglo-Saxon period which the excavator related to a great forest which lay between Peterborough and Stamford (Kiberd 1996a; 32).

Trial trenching was undertaken to verify the results of the non-intrusive survey techniques. A complex of prehistoric ditches and pits were identified. The evaluation highlighted the potential of the area and subsequently Tempus Reparatum designed a mitigation strategy to recover the archaeology. A complex multi-period site emerged from the 1995 excavations (Kiberd 1996a). The archaeology consisted of features, which have been interpreted as houses, agricultural structures, animal pens and pits of Bronze Age and/or Iron Age date.

The evidence for intense prehistoric occupation continued into phase 2A with an increase in the number of pits and structural elements as opposed to boundary features seen in the phase 1. There was also an increase in animal bone and pottery, which may be associated with domestic activities. Whilst pits and post-holes were present throughout the excavation areas Tempus Reparatum suggested that the apparent increase in structural elements to the north-east of the site indicated that the main settlement lay in this position. The report also suggests that the settlement evidence was concentrated in the west and the field systems lay in the east, which results in a degree of confusion (Kiberd a 1996, 21). Larger pits were found to contain waterlogged remains, which have been interpreted as wells. These wells were dated to between 1600 and 1200 BC by radiocarbon dating of wood retrieved during their excavation (Kiberd 1996b).

Phase 2B (1997) was the first stage of work undertaken by the Archaeological Field Unit of Cambridgeshire County Council (CCC AFU). Although this phase of works identified a continuation of the archaeology encountered in previous excavations the quantity and intensity of remains was much reduced. The excavations recognised the remnants of an agricultural system of a probable Bronze Age date, which included three discrete post structures. The presence of a number of other post-holes within the 2B area makes it possible that other structures existed in a less intact condition within the area and were therefore not so readily defined and investigated. The north-south boundary was initiated in the late Neolithic or early Bronze Age based on the Tempus Reparatum chronology. The 1997 excavations showed that this boundary ditch was apparently finally infilled during the late Iron Age or early Roman period. Stratigraphic evidence from this phase of works suggests that the ditch in its final form was unlikely to predate the late Bronze although it may have reinforced earlier boundaries. A large number of undated features were identified and as no period has yet been characterised by a particular type of feature or fill they can at the present only be thought of as components of a more general prehistoric landscape (Kemp 1997).
Phase 3A (1998), lay immediately to the north of the present piece of work. This excavation saw a continuation of the field patterns seen in Phase 2B. Occupation evidence was sparse with only a single concentration of post-holes likely to represent an agricultural building. The north-south boundary continued from Phase 2B-investigation area and became a series of either 3 or 4 parallel ditches, which maintained the same alignment. The southern most end of one of the Celtic enclosures defined by Tempus Reparatum was recovered and partially excavated within the excavation area. Early Iron Age sherds of pottery and a single radiocarbon date of 1660-1405 cal BC (Beta-125856) confirmed Bronze Age and Iron Age components to the site (Kemp 1999).

Phase 3B (1999) lay immediately to the Northeast of the present piece of work. The excavation saw the continuation of a major north-south landscape division. The boundary may have divided pasture areas and possibly defined access points to 'community stockyards' of the type identified within Fengate, Peterborough. Phase 3B has shown this boundary to be more complex in design than in earlier phases, however, it still largely consists of a series of parallel boundaries with the occasional interruptions providing access or egress between the two systems. Although at present largely undated, the post-structures are believed to date to this period and suggest dispersed activity areas where the small quantities of charred grain and animal bone indicate low intensity agricultural production and that pastoralism may have played a important part in the prehistoric economy of the area. The results could potentially indicate seasonal occupation and transhumance during the Neolithic, Bronze Age and early Iron Age periods (Kemp 2000).

During the Iron Age the landscape evidences a new structure and design with the pit and post defined enclosures developing into the major enclosed field and associated structures located in the phase 1 excavation area. These enclosures closely resemble the stockyards hypothesised by Pryor (Pryor 1996). By the later Iron Age and early Roman period the earlier ditch systems appear to have become obsolete and the prehistoric north-south boundary had become partially infilled. The boundary must have still been visible as an earthwork during the Roman period as a series of small pits; post-holes and gullies were cut along the course of the boundary. The Iron Age system was replaced in the Roman period, boundary ditches and a trackway were cut across the earlier fields. Sometime in the late Roman, Saxon or early medieval periods narrow ditches were excavated on an alignment which was to be continued within the medieval field system.

4 AIMS AND OBJECTIVES

The CCC AFU was commissioned to undertake an enhanced recording programme within the Phase 3C extraction area. Phase 3C is a sub area of Phase
3 as defined in the original Specification (Howlett 1995). The area to be stripped and recorded was defined by Lafarge Redland based on their proposed extraction requirements for the following year. This report outlines the results of the final phase of extraction as defined by the specification (Howlett 1998).

Both the 1997 works (phase 2B) and the present project were carried out in accordance with a specification drawn up by Dr Chris Howlett of Tempus Reparatum (Howlett 1995). For the work carried out in 1998, however, this specification was amended following discussions between Dr Howlett and the Lincolnshire County Council’s Development Officer, J. Bonner. Since 1998, the work has been primarily a surveying and watching-brief exercise designed to recover the plan-form of the archaeological remains surviving within the extraction area. Sample excavation was to take place only in special circumstances. These amendments took into account that by 1998, a considerable proportion of the extraction area had already been stripped, planned and excavated, and several examples of every type of archaeological feature occurring in the quarry had already been sample excavated. The changes were embodied in an amendment to the original specification drawn up by Dr Howlett and agreed with the Lincolnshire County Council’s archaeologist (Howlett 1998).

The overall aim of the project has been to reconstruct the components of the prehistoric and historic landscapes surviving within the extraction area. The ultimate aim is for the recorded landscape components to be integrated with settlement evidence, field systems and ceremonial monuments and built into the broader landscape models of the Welland Valley. The intention has been that this landscape research would only progress once the excavation phase had been completed. The aim of this report is therefore to describe the archaeology and provide a provisional interpretation of the remains recovered during the Phase 3C excavations.

5 METHODOLOGY

The overburden, which consisted of topsoil and subsoil, was removed to a level where the archaeology was clearly visible. On all occasions this proved to be at the junction between the topsoil/subsoil and the terrace gravels. Machining was undertaken with a 360° tracked excavator equipped with a toothless ditching bucket, supplied by Lafarge Redland Aggregates. Spoil was removed from the excavation area using a pair of six-wheel 20 tonne dumper trucks.

The area available for analysis during Phase 3C was 1.2 ha. All stripping of the overburden was supervised in order to maintain a suitable depth of machining, whilst monitoring for the presence of fragile archaeological remains.
All potential archaeological features were then planned using a total station. Site plans were generated on computer at our Fulbourn offices and verified on-site. These plans were used to inform the discussion between the AFU, Dr. C Howlett (Phoenix Consultant) and J. Bonner (Lincolnshire County Council) on relevant areas to focus the archaeological recording.

Following the construction of the site survey, areas of archaeological interest were defined. The discrimination criteria were based on spatial associations, or, in the case of ditch boundaries, whether segments of the feature had previously been excavated and whether dating or environmental material were likely to be recovered.

Hand excavation of features was undertaken within the excavation area. Segments between 1m and 2m in length were hand dug through ditches, whilst pits and post-holes were half sectioned and where appropriate completely excavated. A sample of exposed features were excavated in order to characterise features in terms of form, fills, and date. Where structural remains were identified these and associated features were targeted for a higher level of excavation in order to define the nature of the archaeology and recover additional dating evidence.

Field records were made for excavated and unexcavated features of probable archaeological origin. Where features were excavated 1:10 sections were drawn in order to record the depositional sequence. A photographic record of all excavated archaeological features was also made.

Environmental samples were recovered from excavated features during excavation following advice from Dr James Rackham of the Environmental Archaeology Consultancy. The surviving depth of the feature markedly affected the decision to sample, fill type and the presumed date of the feature. Sampling therefore tended to concentrate on the deeper prehistoric pits where environmental remains were most likely to survive. The results from this work are detailed in Appendix A.

Finds analysis was undertaken by members of the CCC AFU with the expectation that full analysis would occur at the post-excavation stage following the completion of all of the fieldwork.

Due to the requirements of the archaeological specification, which was to recover, record and report on the archaeology in Phase 3C prior to the formulation of a comprehensive post-excavation strategy; this report is an interim statement. As an interim report the earlier archives have not been accessed to resolve the problem of the integration of the site results; the specification (para. 6.2.1) indicates that this will occur on completion of the excavation.
RESULTS

The archaeology is presented in the areas of interest defined as a result of the survey and includes areas of buildings and boundary ditches (*Appendix 2*).

About 30% per cent of the archaeological features identified in the stripped area were sampled; these features included ditches, pits and post-holes.

On account of the limited dating evidence retrieved from the excavated features it is difficult to continue exactly with the methodology of spatial analysis and phasing employed in previous reports by Tempus Reparatum. Instead the reports prepared by the AFU describe spatially restricted groups where they exist i.e. sets of post-holes. Artefactual, dating and environmental evidence will be summarised within the text section of the appropriate feature.

Because of the limits of the dating evidence subsequent work may prove that the spatial groupings highlighted for discussion are not the contemporary features which they are presently assumed to be. In addition, the archaeological evidence for certain periods may prove to be more dispersed than at others because of differences in the way that the landscape was utilised and the structure of settlement and activity zones. With the different forms in which occupation and activity areas can be reflected in the archaeological record, compounded by our existing lack of temporal control at this site it is understood that landscape groups cannot be based solely on spatial association. As a result, temporal phasing of the archaeological remains will remain at a very broad level. It is expected that further analysis following the completion of all archaeological excavations within the extraction zone, will target areas which require a refinement of the phasing in order fully to understand the complexity of the site.

The archaeological remains and natural features consist of:

**Natural**

In the main the natural features could be distinguished on the basis of their morphology and a higher sand component within their fills. This method was not fool proof as these natural features were very variable. Sediment descriptions were made of all features, which had the possibility of being archaeological during the course of the excavation. The initial field observations and judgements have been used to separate the archaeological from the natural features, although it is possible, given the similarity between the infill sediments, that some of the natural features have been introduced into the archaeological record. It is unlikely that archaeological features have been misinterpreted as natural as the archaeological features are commonly regular in form.
Figure 2. Area 3B & 3C showing excavated features and group reference numbers.

Key:
- Medieval ploughing
- excavated Prehistoric features

G12 Feature group
556 Feature number

G17 Roundhouse activity area.
G16 Iron Age Enclosure
G19 Prehistoric boundary.
G18 Roman post-holes
G20 Roundhouse, fenced enclosure and pits
Just as the archaeological features are generally found in discrete groups within the excavation area, natural features also tended to have a similar association, particularly where they were associated with tree root activity. This can both aid and confuse the picture when due to the shallow condition of many of the features they cannot be categorically described as archaeological.

Natural features within the excavation area consisted of tree root activity and periglacial features such as ice wedges and frost heave structures. No tree throw structures were observed and although there was plenty of evidence for tree root activity all of these features appear to predate the archaeology. There was no evidence within phase 3B for the extensive medieval forest postulated by Tempus Reparatum (Kiberd 1996a).

**Archaeology**

**Group Contexts and Description (Figures 2, 3 and 5).**

NB. Group numbers have been continued in the same series as was established by the 1997 excavations. Hence the group numbers in this report follow on from G20 which was the last number used in the 1999 report (Kemp 2000, 6).

**G21** Iron Age enclosure and possible hearth.

phase 1: 663, 662, 708, 707.
phase 2: 677, 676,
phase 3: 712 (same as 693), 709, 710, 711, 693 (same as 712), 689, 690, 691, 692, 713, 714, 697, 694, 695, 696, posthole,
phase 4: 668, 669, 670, 671, 672, 673, 674, ditch,

661, 659, 660 hearth

Cleaning of the area found that a major junction of inter-cutting boundary ditches together with a possible hearth or a repository for turned out ash from an unidentified hearth, suggested by the presence of charcoal in the environmental sample examined (Appendix 1). Five segments were excavated through the features, identifying a number of re-cuts and the re-alignment of the ditches. The hearth could only be considered as a discreet feature not being truncated by any of the ditches associated with the junction and as a consequence difficult to phase.

**Phase 1**

663 North/south aligned ditch 0.40m in width and 0.05m in depth. 663 was filled with a grey silty sand with >2% flint gravels.
**Figure 3** Detail of G21. Figure showing an area centred of the late Iron Age enclosure and the possible droveway.

708 Southwest/Northeast aligned ditch 1m in width and 0.20m in depth. 708 was filled with a greyish brown silty sand with <30% gravel flints.

**Phase 2**

677 Northwest/Southeast aligned ditch of 0.75m in width and 0.10m in depth. 677 was filled with a brown silty sands with <5% flint grovels.

**Phase 3**

712 (same as 693) Northwest/Southeast aligned ditch of 1.25m in width and 0.32m in depth. 712 was filled with a brown silty sands with >2% flint grovels.

693 (same as 712) was excavated as a single quadrant with a section length of 4.62m and 0.66m in depth. 693 was filled with greyish brown silty sandy deposits with varying amounts of gravel flint inclusions ranging between 2% and 15%.
A circular posthole, 0.76m in diameter and 0.44m in depth. 697 was filled with a brownish orange silty sands with >15% small flint grovels. The section would suggest that ditch 693 was excavated too deeply on the north-western side; rapid infilling of 693 then took place enabling posthole 697 to be completed.

**Phase 4**

668 Southwest/Northeast aligned ditch of 2.7m in width and 0.68m in depth. 668 was filled with a brown sandy silts with <30% flint grovels.

Feature 661 could not be placed within a particular Phase on site, due to the lack of dating material and also the absence of a stratigraphical relationship between cut features.

661 Circular/complex between 0.70m and 0.80m in width and approximately 1m in length. 661 was filled with a very dark brown/black charcoal rich silty sand with 5% flint grovels. For the results environmental results pertaining to the fills of 661 (see Appendix 1).

**G22 Posthole alignment (Figure. 2)**

634, 635, 636, 637, 638, 639, 665, 664, 715, 667, 666, 703, 704, 705, 706.

One of the earliest phases of archaeology on the site may be series of large postholes (see above) aligned north/south across the area of investigation. Fragments of Bronze Age pottery were recovered from 634 and 637. It is possible that 631 and 705 were positioned slightly off the main alignment to create a curve at the southern end of the alignment. However, it is also possible that 631 and 705 are part of a structure.

631 circular in plan, 0.50m in diameter and 0.10m in depth with a concave base. 631 was filled with a mid-brown silty sand with up to 5% flint grovels.

705 circular in plan, 0.70m in diameter and 0.21m in depth with a concave base. 705 was filled with a greyish brown sandy silt with <2% flint grovels.

634 circular in plan, 0.77m in diameter, 0.30m in depth with concave base. 634 was filled with two deposits indicating two separate infill episodes. The basal deposit consisted of a mid-brown silty sand with >40% pea-grit and the secondary fill was made up of a greyish brown sandy silt with up to 2% gravel flint. Early Bronze Age pottery was recovered from the feature.

665 circular in plan, 0.80m in diameter 0.40m in depth with a 'V' shaped base. 665 was filled with an olive brown sandy silt with <2% flint gravel.
637 circular in plan, 0.67m in diameter 0.40m in depth with a 'V' shaped base. 637 was filled with an olive brown sandy silt with <2% flint gravel.

667 circular in plan, 0.45m in diameter 0.24m in depth with a concave base. 667 was filled with a brown sandy silt with <10% flint gravel.

G 23 Rectangular structure and fence line (Figures 2, 4 and 5)

A group of ten postholes representing a rectangular structure (6.9m in length and 4.7m wide) that may be associated with a similarly shaped structure identified in Phase 3A during the 1998 investigation. There is a possibility that G23 is associated with G24 and G25 forming a complex of structures used for agricultural activities; farming or individual farmsteads.

615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625

615 circular in plan, 1.2m in diameter 0.31m in depth with a flat base. 615 was filled with two deposits indicating two separate infill episodes. The basal deposit consisted of a greyish-brown silty sand with <2% flint gravel and the secondary fill was made up of a mid-brown silty sand with <2% gravel flint.

618 circular in plan, 0.32m in diameter 0.25m in depth with a concave base. 618 was filled with two deposits indicating two separate infill episodes. The basal deposit consisted of a mid-brown silty sand with <2% flint gravel and the secondary fill was made up of a greyish-brown silty sand with <2% gravel flint.

621 circular in plan, 0.19m in diameter 0.16m in depth with a concave base. 621 was filled with a greyish-brown sandy silt with <2% flint gravel.

623 circular in plan, 0.40m in diameter 0.24m in depth with a concave base. 623 was filled with two deposits indicating two separate infill episodes. The basal deposit consisted of a mid-brown silty sand with <2% flint gravel and the secondary fill was made up of a greyish-brown silty sand with <2% gravel flint.

G 24 Sub-circular building and associated fence line (Figures 2 and 4).

It is possible that G24, comprising of a sub-circular structure (9.2m in length and 5.4m wide) and a fence line which may be associated with G23 and G25. However, the lack of artefactual evidence does not allow for a definite date correlation to be drawn for the excavated features. Within the sub-circular structure two small postholes were identified raising the possibility of internal structures existing. It is possible that a significant proportion of the building has been removed by medieval ploughing.
Figure 4 Detail of G23, G24, G25 and G26. Prehistoric farmstead.

602, 601, 600, 604, 603, 606, 605.

602 circular in plan, 0.83m in diameter and 0.18m in depth with concave base. 602 was filled with two deposits indicating two separate infill episodes. The basal fill consisted of a brown sandy silt with up to 20% flint gravel and the secondary fill was made-up of a light greyish brown silt with no inclusions.

604 could not be identified in plan or a diameter measurement with any degree of accuracy because it has been truncated by posthole 602. However a depth measurement of 0.16m could be taken.

606 circular in plan, 0.80m in diameter and 0.11m in depth with a flat base. 606 contained one fill, a light brown sandy silt with up to 20% flint gravel.
610, 609, 612, 611, 614, 613.

Cleaning of the area to the Southeast of 602/604 identified a Northwest/Southeast alignment the of postholes 610, 612 and 614 which may continue the boundary to the property described in G23 above.

610 circular in plan, 0.28m in diameter and 0.10m in depth with a concave base. It contained one fill, a light brown sandy silt with <15% flint gravel.

612 circular in plan, 0.30m in diameter and 0.10m in depth with a concave base. It contained one fill, a light brown sandy silt with <10% flint gravel.

614 circular in plan, 0.37m in diameter and 0.11m in depth with a concave base. It contained one fill, a light brown sandy silt with <15% flint gravel.

G25 Posthole alignment (Figures 2 and 4)

G25 consisted of four postholes aligned Northwest/Southeast. Function of the alignment is not readily clear, however, its is possible that it was a fence line associated with G23 and G24 (see above) alternatively it may be one wall of a rectangular structure largely removed by ploughing. Cleaning beyond the known alignment did not reveal any further postholes.

625 circular in plan, 0.25m in diameter and 0.16m in depth with a concave base. It was filled with one deposit consisting of a mid-brown silty sand with up to 2% gravel flint.

G26 Pit and posthole structure (Figures 2 and 4)

Located to the east of G24 was a large shallow pit 686, which was found to be surrounded by seven postholes. Further cleaning revealed that the excavation of 686 truncated six of the seven postholes. No finds were recovered by which this feature could be dated.

686, 684, 685, pit, 688, 687, posthole

686 circular in plan, 1.1m in diameter and 0.18m in depth with a concave base. 686 was filled with two deposits the basal fill consisted of a mid-brown silty sand with <10% flint gravel and the secondary fill was made up of a light greyish brown silt with < 2% flint gravel.

688 circular in plan, 0.49 m in diameter and 0.23m in depth with a concave base. 688 contained one fill, a light brown silty sand with <25% flint gravel.
Figure 5 Sections
Other Excavated Features (Figures 2 and 5)

Excavation of the linear ditches, and one pit in the main, outside the targeted areas of concentrated activity. Several segments were excavated through the linear ditches located across the site in order to determine relationships as well as the recovery of dating material.

Northeast/Southeast Ditches


The ditches listed below would appear to be part of the system dividing up the land into individual plots, however their parallel arrangement indicated through excavated ditch segments: 649, 646, 653, 681, 701 and later 657 and 668, may suggest the remnants of a trackway running Northeast/Southwest across the landscape. Ditches 643 and 641 located to the Southeast of 657 may be contemporary with 649, 646, 653, 681 and 701 and functioned as a buffer or control to advancing livestock, re-directing them around either end of the ditch.

641  Northeast/Southwest orientated ditch of 0.30m in width and 0.08m in depth. The ditch is filled with a light brown silty sand with < 2% flint gravels. The ditch is interrupted and further work was undertaken as 643 1m to the Southwest.

643  Northeast/Southwest orientated ditch of 0.62m in width and 0.10m in depth. 643 is filled with a light brown silty sand with < 10% flint gravels. The ditch continues in a southwesterly direction terminating 1.5m to the north of posthole 705.

646 (same as 649): Northeast/Southwest orientated ditch of 0.60m in width and 0.22m in depth. The ditch contained two fills: the basal deposit consisted of a mid-brown silty sand with < 5% flint gravel. The secondary deposit consisted of a brown silty sand with < 5% flint gravel.

649 (same as 646): Northeast/Southwest orientated ditch of 0.45m in width and 0.16m in depth. The ditch contained two fills: the basal deposit consisted of a mid-brown silty sand with < 5% flint gravel. The secondary deposit consisted of a brown silty sand with < 5% flint gravel. One sherd of Roman Nene Valley Grey Ware pottery was recovered from the upper fill of 649.

651  Northeast/Southwest orientated ditch of 0.76m in width and 0.16m in depth. 651 is filled with a light yellowish grey/brown sandy silt with < 20% flint gravels.
This ditch continues into the excavation from 3B and is truncated by the later furrow. As there was no evidence for the continuation beyond the furrow it was assumed that 651 terminates.

653: (same as 681) Northeast/Southwest oriented ditch of 0.76m in width and 0.16m in depth. 563 is filled with a light yellowish grey/brown sandy silt with <20% flint gravels.

653 was the termination to this ditch and provided no stratigraphic relationship with the linear ditch 646 located 0.30m to the Northeast and aligned Northeast/Southwest. However, as 653 and 646 are on the same alignment it is not impossible to assume that they are both contemporary with each other.

681: (same as 653) Northeast/Southwest oriented ditch of 0.70m in width and 0.20m in depth. 681 is filled with a mid-brown sandy silt with < 10% flint gravels. Ditch 681 was found on excavation to truncate 697.

701: (same as 681 and 653) Northwest/Southeast aligned ditch of 0.40m in width and 0.08m in depth. 701 was filled with a greyish brown sandy silt with < 1% flint gravels. The termination of the ditch appears to have been truncated by the furrow located to the Southwest of the excavated segment.

703: Northwest/Southeast aligned ditch of 0.50m in width and 0.09m in depth. 703 was filled with a mid-brown silty sand with < 1% flint gravels. The excavation of two furrows has removed both terminals of the ditch.

657: (same as 668) Northeast/Southwest orientated ditch of 1.10m in width and 0.20m in depth. 657 was filled with a light greyish brown sandy silt with < 10% flint gravels. Ditch 657 was part of the Iron Age field boundary system. The ditch truncates pit 654.

679: Northwest/Southeast aligned ditch of 0.95m in width and 0.14m in depth. 679 was filled with a light brown silty sand with < 20% flint gravels. Additional cleaning combined with excavation revealed that 697 was truncated by 681.

683: (same as 628) Northwest/Southeast aligned ditch of 0.72m in width and 0.12m in depth. 683 was filled with a mid-greyish brown compacted silt with < 5% flint gravels. One fragment of animal long bone was recovered from the ditch fill.

628: (same as 683) Northwest/Southeast aligned ditch of 0.79m in width and 0.11m in depth. 628 contained two fills with the primary fill consisting of a brown silty sand and the secondary fill being made up of a greyish brown sandy silt. Additional cleaning of the area revealed that 628 truncated the continuation of 681.
Pit (Figures 2 and 5)

654, 655, 656

654: An oval pit 0.20m in depth. An accurate complete width measurement could not be obtained due to the feature being truncated by ditch 657. The pit was 0.20m in depth and the remaining width measured 1.10m. 654 contained two fills the primary fill consists of mid-brown silty sand and the secondary fill a silty sand rich in charcoal fragments.

Ridge and Furrow (Figure 2)

A total of 13 shallow Northwest-Southeast orientated furrows crossed the area and cut through the earlier archaeology. These furrows were set at 12m and 7m apart, which was a continuation of the pattern identified during previous phases of archaeological work carried out at the site.

The alignment of the remnants of the medieval strip cultivation system with similarly aligned ditches indicates an evolving agricultural landscape which respected the earlier historic (Roman, Saxon and earlier Medieval) landscape structure.

Pottery

Fifteen sherds of pottery were recovered during these excavations. These were very abraded and have provisionally been dated to the Bronze Age, early Iron Age and Roman periods. These finds are sparsely distributed and are unlikely to indicate intense settlement activity in any of these areas.

The low number of pottery sherds recovered during the excavation would appear to correspond with previous years investigations undertaken by the AFU, and show a marked fall off in recovery from the settlement seen in the north-west of the extraction area (Kemp 1998, 1999, 2000).

Environment (Appendix 1)

Twenty-one samples were taken from ditch, pits and post-holes. The results of the environmental assessment (Appendix 1) suggest that human activities associated with crop processing and occupation were sparse in this area. Many samples show evidence of recent contamination and intrusions. Processing of the environmental sample taken from 658 produced flakes of hammerscale,
suggesting iron smithing on the site. Deposit 659 produced charcoal in a sufficient amount to obtain a radiocarbon date, burnt flint and firecracked pebbles.

7 DISCUSSION

Phase 3C excavations would appear to indicate a continuation of the types of Neolithic, Bronze and Iron Age activity which were widespread throughout the whole area of the Stowe Farm quarry extension. As in previous Phases of works the present excavations focused on the clearly identifiable prehistoric activity areas.

One of the earliest dated phases of archaeology identified would appear to be a series of postholes aligned north/south. On excavation, one of the postholes (634) produced fragments of pottery that were identified as being Bronze Age in date: although the abraded nature may suggest residual, consequently giving the feature an Iron Age date.

As in previous years structural remains have been identified taking the form of either rectangular or oval structures fenced boundaries. G23, 24 and 25, define an enclosure of around 25m in length, composed of a single circular hut, other small rectangular buildings and a fence represented by postholes, this may form a single complex and represent a small farmstead. This farmstead is not aligned to the Iron Age enclosure and is therefore presumably of the Bronze Age or early Iron Age date. No large pits were identified with these building although the association of a large pit with a Bronze Age building (round house) had been quite a common feature in earlier phases of area work on the site.

Environmental data and the scarcity of finds indicate that the occupation was somewhat sparse. The presence of a possible hearth 661 that was abandoned before use, acting only as a repository for hearth discard may indicate occupation despite the absence of structural remains. The lack of evidence for settlement within the immediate vicinity of the hearth may be the result of changes in land use and intensive cultivation.

The Iron Age enclosure continues in a south-westerly direction across the site. A single ditch enclosure was identified in Phase 3B. In Phase 3C the enclosure whilst maintaining the same alignment is more complex with four phases of ditching being defined.

A single sherd of Roman Nene Valley Grey Ware pottery was recovered from ditch 649. The Roman pottery probably does not indicate the date at which the ditch was excavated. To the Northeast, 649 was truncated by ditch 677 thus
indicating an Iron Age date for the ditches original excavation. These ditches functioned as boundaries and it is not inconceivable that ditch 649 (same as 646) together with linear ditch 653 (same as 681 & 701) which are on the same alignment formed the boundaries of the north-east/south-west trackway, with the southeastern boundary indicated through the presence of 641 & 643. Alternatively, linear ditches 643 and 641 in association with 653 and 646 could form part of an elaborate entrance into an enclosed field either to the north or the south of these ditches. The composition of such a gateway would appear to be to encourage movement of livestock around each end of ditches 643 and 641, thus introducing a controlling element to stock movement. Later, a single northeast/south-west aligned ditch 668 (same as 657) may have been inserted to divide the landscape on a smaller scale and supersede the narrower boundary ditches and gateway.

The environmental evidence from the boundary ditches suggests that when they were originally constructed and during their initial infill the ditches contained varying amounts of water. The Bronze Age and early Iron Age environment was probably of damp long grassland or a marshy habitat, which potentially could have supported a pastoral economy on a seasonal basis (see appendix 1 for environmental results).

By using aerial photographs Pryor has identified an extensive network of ditched enclosures throughout the West Deeping area (Pryor 1996). Based on the Fengate material where cropmarks and excavation have been used to suggest the presence of droveways and ‘community stockyards. Pryor has argued for an intensive Bronze Age sheep management strategy adjacent to the Fens. Although no clear evidence to justify this landscape interpretation has been identified during these excavations, there is potential evidence for trackways, linking individual plots of land, large sub-divided enclosures and environmental data which is suggestive of a landscape suitable for pastoral economy.

If Pryor's spatial linkages and interpretations are correct further investigation of the Iron Age enclosures are warranted as these enclosures could feasibly be of an earlier date than presently indicated by the Tempus excavations. These enclosures could be the Bronze Age stockyards where herds were divided for breeding, culling and exchange and if so would have formed an important cultural and economic focus for Bronze Age populations. Subsequent alteration and adaptation by Iron Age populations may be suggestive of a degree of landscape and cultural continuity which may be reflected in the activities and artefacts preserved within these areas through evidence gathered during previous phases of archaeological work. Alternatively, where Pryor writes about the Bronze Age community stockyards at West Deeping we could suggest that they are early Iron Age in date, based upon the results of these excavations.
CONCLUSION

The view of the Stowe Farm Quarry area during the investigation of previous phases since 1997, suggested open country during Neolithic and Early Bronze Age periods. Although undated, the post-structures G23, 24, and 25 are believed to associated with structures identified through previous phases of archaeological work. Many of these structures appear to be located similarly along the route of a possible trackway or landscape division (see Kemp 1997, 1999, 2000). Many of these structures have been tentatively dated to the Neolithic and Bronze Age based on small amounts of pottery and occasional radiocarbon dates from adjacent pits.

The environmental evidence retrieved from Phase 3C follows the same pattern of activity seen in previous years with small quantities of grain and animal bone indicating low intensity agricultural production and that pastoralism may have played an important part in the prehistoric economy of the area. The results could also be an indication of seasonal occupation and transhumance during the Neolithic, Bronze Age and Early Iron Age periods within a landscape utilising an open field system.

During the Iron Age a more structured landscape becomes evident with the development of major enclosed fields and associated buildings. Determinisation of the date for the inception of a more structured landscape is difficult due to the paucity of artefactual recovery from the investigation. However, evidence derived from radiocarbon dating of charcoal, and Thermoluminescence dating of sherds of pottery, may help in future to refine chronology of the archaeology nominally attributed to different phases of landscape development.

By the Late Iron Age and early Roman period the earlier ditched enclosures appear to have become obsolete and became completely infilled. These boundaries must have still been visible as an earthwork during the Roman period hence the mirroring of the Iron Age ditch system by the Roman ditches. The construction of the Roman field system saw the introduction of trackways between the various plots of land.

Sometime in the late Roman, Saxon or early medieval periods narrow ditches were excavated on an alignment which was to be continued within the medieval field system. The landscape layout continued up to enclosure when although the field layout changed the domination of arable cultivation continued until quarrying began.

These additional investigations have helped us to refine the landscape phasing evidenced in earlier excavations on the site. A fuller analysis of the stratigraphic sequence and particularly the dating of the landscape is still required to
substantiate many of the interpretations and piece together the types of activity representative of each phase of prehistoric occupation.

ACKNOWLEDGEMENTS

The author wishes to acknowledge the financial support of Lafarge Redland Aggregates Ltd and advice from Steve Kemp (CCC AFU Project Officer), and Dr James Rackham of Environmental Archaeology Consultancy.

I also wish to thank Phil Launders the Quarry Manager for his help during the course of the excavations and Dr Chris Howlett for setting up the project.

Dr J. Rackham (Environment) provided specialist Services.

Special thanks are due to Rebecca Casa-Hatton, Tony Baker, Chris Montague, Phil Church, Diane Walls and Cristina Sampedro who undertook the excavation with a high level of professionalism. Caroline Malim and her Apple Macintosh for which many thanks are due produced illustrations.

BIBLIOGRAPHY


Kiberd, 1996a Interim Excavation Report: Stowe Farm, Extension (W3/PL/5), West Deeping, Lincolnshire. Phase 1. Tempus Reparatum,


Appendix 1

Environmental Archaeology Assessment

Introduction
Excavations conducted by The Cambridgeshire County Council Archaeological Field Unit on the last phase of work at Stowe Farm, West Deeping, uncovered a series of features including field ditches, postholes and a hearth. Only two of the sampled features were dated, both to the Bronze Age, and the remainder of the features are presumed to be variously dated to the Bronze Age and Iron Age. Twenty one samples were taken to assess the range and quality of environmental evidence in the deposits and these were submitted to the Environmental Archaeology Consultancy for assessment (Table 1).

Table 1: Stowe Farm. Samples submitted for environmental assessment

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Methods
The soil samples were processed in the following manner. Sample volume and weight was measured prior to processing. The samples were washed in a ‘Sira’ tank (Williams 1973) using a flotation sieve with a 0.3mm mesh and an internal wet-sieve of 1mm mesh for the residue. Both residue and float were dried. The residues were then refloated for the efficient recovery of charred material. The dry volume of the flots was measured, and the volume and weight of the residue recorded.

The residue was sorted by eye, and environmental and archaeological finds picked out, noted on the assessment sheet and bagged independently. A magnet was run through each residue in order to recover magnetised material such as hammerscale and prill. The residue was then discarded. The float of each sample was studied under a low power binocular microscope.
The presence of environmental finds (ie snails, charcoal, carbonised seeds, bones etc) was noted and their abundance and species diversity recorded on the assessment sheet. The float was then bagged. The float and finds from the sorted residues constitute the material archive of the samples.

The individual components of the samples were then preliminarily identified and the results are summarised below in Tables 2 and 3.

**Results**

Most of the samples show evidence of recent intrusion and contamination. Many of them include uncharred seeds of taxa such as *Chenopodium* sp (goosefoot/orache), *Polygonum* sp. (nottgrass, bistorts and bindweeds) and *Rubus* sp. (blackberry/raspberry). Recent plant rootlets are also abundant in some of the samples. All have shells of *Cecilioides acicula*, often in abundance, a species believed to be a recent introduction which is a blind subterranean species that can be found live down to depths of over 1 metre (Evans 1972). The presence of a few small fragments of coal in a few of the samples is a further indication of recent contamination through soil processes.

Archaeological finds were largely absent from all the samples (Table 2). No dating evidence was recovered from any of the samples. The bulk of the residue from the two sub-samples of hearth pit fill context 659 both comprised burnt flint and firecracked pebbles and some reduced fired and concreted sediment. Fired clay was present in 659 and posthole fill 639, a few fragments of unidentifiable bone in four samples and two small fragments of mussel shell in 676. This latter context has been assigned a Bronze Age date on the basis of pottery. The fragment of mussel is unfortunately not identifiable to species and may be a freshwater rather than marine mussel. Context 658 produced four flakes of hammerscale. While this is evidence of iron smithing on the site at some time whether it is contemporary with the fills rather than intrusive is impossible to assess. If contemporary it would suggest an Iron Age or later date for the ditch fill.

Although the environmental evidence from the samples is a little more extensive it allows very little comment in all but two or three of the samples. Only very small quantities of charcoal were present in most samples and only those from the hearth pit fill, 659 and posthole 636 included any significant quantity. There is sufficient charcoal from 659 to obtain a radiocarbon date should this be considered archaeologically valuable. Surprisingly two fragments of bird eggshell were recovered from contexts 600 and 605. Such finds are normally assumed to be chicken eggshell, but in a prehistoric context this is not likely. These two fragments could be contaminants from chicken manure used to fertilise the field in the past. A few fragments of charred cereal grain are present in seven of the samples, but in none does more than three fragments occur. All of these bar one were too poorly preserved to be identifiable, but one grain is probably wheat, although species identification is unlikely. A single charred pulse, possibly pea or large legume, was recovered from the hearth pit fill, 659.

Snails were present in all the samples, although usually dominated by the shells of *Cecilioides acicula*. The taxa most frequently recorded are *Vallonia pulchella*, *V. excentrica*, *Hygromia hispida* and *Helicella* sp.. The habitat specific taxa in this group imply calcareous grassland, with the *Vallonia pulchella* indicating a tendency to wet grassland. In a few samples (Table 3) a more extensive taxa list gives a clearer picture of habitat types. Open
country and marsh taxa dominate in the samples with the ditch fills 670 and 689 particularly, with *Planorbis leucostoma* and *Pisidium*, suggesting seasonally wet environments within the ditches (Macan 1977; Ellis 1978). The presence of marsh taxa in post-holes and the hearth pit and the almost ubiquitous occurrence of *Vallonia pulchella* is suggestive of a fairly wet grassland environment during the period these features were filling. This contrasts with the present day where drainage has dramatically lowered the water table.

**Table 3:** The richer mollusc assemblages

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Habitat groupings broadly taken from Evans, 1972; Macan 1977; Ellis 1969; Cameron and Redfern 1976

**Discussion**

The input of settlement rubbish into the sampled features is minimal although on Bronze Age sites this is often the norm. Animal bone has not survived well on the site and its relative absence can probably be attributed to post-depositional loss. Low densities of charcoal and occasional charred cereal grains imply a low level of fire debris being blown around the site and incorporated into the deposits. Only context 659 clearly includes an *in situ* accumulation and the occurrence of charred wheat grain and a possible pulse among the charcoal fragments might imply a domestic hearth of some sort. The few flakes of hammer scale in context 658 could indicate an Iron Age or later date for this ditch fill but on this evidence this is speculative.

The molluscan fauna suggests that the site was primarily a damp or wet grassland environment during the periods the features were infilling, with seasonally water filled ditches.
Recommendations
The samples have a very low potential for further work. Three areas may deserve a little more work.

There is sufficient charcoal in context 659 for a radiocarbon date and should the date of this hearth pit prove of some archaeological importance then a sample could be submitted for dating.

The very few charred grain and pulse fragments should be submitted with other material from the previous seasons of work for specific identification by an archaeobotanist.

Finally the two largest molluscan assemblages, those from the Bronze Age ditch fill 676 and ditch 670 should be quantified for comparison with other assemblages from the previous seasons work.

Acknowledgments
I should like to thank Jeremy Dubber for the sample processing and Alison Foster for checking the sample records.

Bibliography
Cameron, R.A.D. and Redfern, M. 1976 British Land Snails. Linnean Soc. Synopses of the British Fauna No. 6
Ellis, A.E. 1978 British Freshwater Bivalve Mollusca, Linnean Soc. Synopses of the British Fauna No. 11
Waller, M. 1994 The Fenland Project, No. 9: Flandrian Environmental Change in Fenland, East Anglian Archaeology, 70.
Williams, D.1973 Flotation at Siraf, Antiquity, 47, 198-202

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28th November 2000
### Table 2: Archaeological and environmental finds from the samples

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<th>flot vol ml</th>
<th>char-coal *</th>
<th>char'd grain *</th>
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+ present as tiny fragments weighing < 1 g.
* frequency – 1=1-10; 2=11-50; 3=51=150; 4=151-250; 5=>250 items
# frequency/diversity; diversity as follows: 1=1-3; 2=4-10; 3=11-25; 4=25-50 taxa
(uncharred plant material not scored in this table)
Appendix 2

Statement concerning the watching brief and excavation proposals.

Between 27/04/00 and 12/05/00 the AFU conducted a watching brief on land at Stowe Farm, West Deeping, Lincolnshire, prior to gravel extraction. The work was commissioned by Dr Chris Howlett on behalf of Lafarge Redlands Aggregates.

The watching brief was conducted during the removal of the topsoil over an area of 1.2 ha down onto the uppermost layer of the natural gravels and sand deposits, at the depth of some 0.30m. The topsoil was removed by means of a mechanical excavator provided with a toothless ditching bucket 1.5m wide. Two dumpers were employed to clear the excavated topsoil. This was relocated and distributed over a portion of the site that had been quarried in the past.

The removal of the topsoil exposed the geological deposits of sands and gravels that were cut by a series of archaeological features.

In synthesis, these latter consisted of:
- Post-Medieval (?) furrows on a N-S (?) alignment up to 2m wide and spaced at regular intervals across the area under investigation. The furrows were characterised by a very dark brown fill.
- Remnants of an earlier (Medieval?) pattern of ridge and furrow, the latter with a slightly paler fill.
- At least two separate phases of field enclosures of uncertain date (prehistoric?) were identified on plan. The ditches were cut by the medieval/post-medieval furrows.
- Finally, a square shaped feature with charcoal in high concentrations was identified. Its function is uncertain (possibly an oven, hearth?).
- It was difficult to assess the presence of pit/post-holes due to frequent roots' disturbance and geological variation (namely in the form of periglacial features that may be mistaken for man-made features).

In the whole, the features uncovered during the watching brief are very similar to (or may represent the continuation of) those excavated and recorded during previous watching briefs in the same area. The major element of distinction between the two areas is the apparent lack of structural features, such as round-houses, on the present site. However, it cannot be discounted that the latter may have originally existed, having been severely truncated. Furthermore, the nature of the geology makes it difficult to detect small features (above).

Rebecca Casa Hatton
Outline of Excavation strategy.

It is clear from the results of the Phase 3B topsoil stripping that major settlement or occupation remains are absent from the 2000 excavation area. Unlike previous years structural remains such as buildings and fenced enclosures did not exist or do not survive in this area. The main objectives of any further work needs to resolve the relationship between the enclosures and ditch systems as well as the occasional areas of burning (possible hearths or ovens) recognised by the Rebecca and Bob Hatton.

It is necessary to continue work on the enclosure and ditch system as it is important to resolve the temporal relationships of many of the landscape elements. This is particularly the case for alignments formerly thought to be Roman, but which may have been an important element of the Iron Age field systems. It is also of interest that these same alignments form the basis of the Medieval fieldsystem and therefore interesting questions regarding the later prehistoric, Roman, Saxon and Medieval landscape evolution of the site may be answered.

Of the ditches the linkages between the droveway and the Iron Age enclosure are particularly important (see Number I on attached plan). After which it will be necessary to excavate the junctions between the droveway and the ‘field’ boundary ditches (Numbers 2-9). The droveway ditch terminations will also require examination as at these points structural remains indicative of gates or such may be in evidence.

Individual activity areas are recognisable the most interesting and best preserved of which is the possible oven situated at the junction between the droveway and Iron Age enclosure (Number 1). A minimum of 50% of this feature will be excavated as will adjacent features which, may have a temporal association.

Occasional scattered burnt post-holes have also been identified, but few other remains have been found in association. Whilst undertaking an examination of the surrounding area to verify the presence/absence of buildings, if appropriate, excavation be undertaken in order to recover suitable quantities of charcoal to date any associated building remains.

Twenty personnel days have been budgeted for to allow the thorough investigation of the junctures of the ditch systems and any complex remains. As in previous years environmental analysis will be undertaken by James Rackham in liaison with the Field Unit and Chris Howlett.

Stephen Kemp BA MSc AIFA
Project Officer