

## **SUMMARY**

*This project was commissioned by Swayfields Ltd. in advance of the construction of a proposed new Motorway Service Area (MSA).*

*Excavation has shown that the site was first occupied in the Late pre Roman Iron Age (LPRIA) dateable to between c 50 BC-50 AD. The latest artefactual material recovered during excavation was a small assemblage of Saxon pottery dateable to the 6<sup>th</sup>-7<sup>th</sup> centuries AD.*

*Features revealed through excavation included a pottery making kiln, the remains of at least two separate Romano British buildings, a drying / smoking oven and evidence for 'ritual' activity in the form of a small pit containing placed deposits consisting of a pair of shears and a coin. The vast majority of surviving features however, were found to be ditches indicating that considerable effort had gone into the maintenance of good drainage across the site throughout the lifetime of the farmstead.*

*This Post Excavation Assessment aims to illustrate the archaeological potential of the site, review and reconsider relevant research aims and highlight the potential of specific aspects of the site archive, both written and artefactual to address these aims.*

*This procedure is intended to target resources for analysis and allow the members of the post excavation team to interpret and publish the results of the 1999 excavation of this important Romano-British rural site.*

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**A Romano-British Farmstead at the site of a Motorway Service Area, A1 /  
A605 Junction, Haddon**

**Post-Excavation Assessment of Evaluation and Excavation, 1999.**

**TL 1374/9390**

*The following document represents an assessment of the potential for post - excavation analysis and publication from an archaeological investigation undertaken as part of a planning condition.*

**1 INTRODUCTION**

This study was commissioned by Darren Hird of Swayfields Ltd. in advance of the construction of a proposed new Motorway Service Area (MSA). This Post Excavation Assessment (PXA) aims to highlight the known archaeological potential of the site, with particular reference to the 1989 excavations undertaken in advance of the construction of the A605 Elton-Haddon bypass (French, C.A.I., 1994. *The Archaeology along the Elton-Haddon Bypass, Cambridgeshire.*), located adjacent to, and immediately north of the current development area

This study has been carried out in accordance with a specification drawn up by Mark Hinman and Tim Malim of the Archaeological Field Unit (A.F.U.) in response to a design brief by Simon Kaner of Cambridgeshire County Council (C.C.C.) County Archaeology Office (C.A.O.).

**2 GEOLOGY AND TOPOGRAPHY**

The site is located 1.2 kms northeast of Haddon adjacent to the A1 (Junction 10) southwest of the junction with the A605. The proposed development area is roughly triangular and covers an area of approximately 9.4 hectares. The site is centred on TL 1374/9390.

The site is situated on the Oxford Clay and lies on an east facing slope, rising from c 18m OD adjacent to the A1, (formerly the line of Roman Ermine Street), to over 38m OD at the western limit of the area.

### **3 PROJECT BACKGROUND**

To date four phases of the project have been completed (*desk based assessment / evaluation / excavation and the current phase, post excavation assessment*) in compliance with the recommendations of PPG16 and the conditions outlined within the planning consent.

#### **Phase 1: Desk Based Assessment**

Provided a review of available sources of information and potential non intrusive survey techniques including:

##### **Aerial Photographic Assessment**

Discussions with Air Photo Services suggested that aerial photographic survey work offered little likelihood of useful results as the depth of colluvium and the base geology would not be receptive to such techniques. In addition there is little that air photographs could add to geophysical survey work previously undertaken on the subject site.

##### **Sites and Monuments Record**

The known archaeological resource was investigated through Peterborough City Council Sites and Monuments Record (SMR), Cambridgeshire County Council's SMR and resources, including past publications held at the AFU's headquarters in Fulbourn.

##### **Past Excavators**

The AFU has contacted the director of the previous excavation within the immediate area, Charley French. Our aim was to discuss past findings in relation to the recent excavation, and to establish the current whereabouts of the various elements of the site archives for the bypass excavations.

#### **Phase 2: Evaluation**

Between the 24th of May and the 3rd of June 1999 Mark Hinman of the AFU undertook the evaluation of an area of approximately 9.4 hectares adjacent to the A1 south west of the junction with the A605. The work was commissioned by Swayfields Ltd in advance of the proposed development of the site as a new motorway service area. The evaluation was undertaken in accordance with a CAO brief and subsequent AFU specification dated 17/02/99 and approved by S Kaner of the County Council Archaeology Section.

Evaluation demonstrated the presence of activity within the development area, primarily associated with the Romano-British farmstead partially excavated by French.

A total of fifteen trenches, 1.60m wide and totalling 844 m in length, 1350 m square (c 1.5 % sample) were opened using a tracked excavator.

Evaluation defined two areas requiring additional archaeological investigation. Area 1 (the area of the farmstead core) covered c 1.2ha (initially estimated at 2.5ha prior to machine stripping) and required preservation by record through open area excavation. Area 2 (the area of outlying field systems to the east of area 1) required further trenching in order to establish the layout, and if possible date of the agricultural features present.

### **3.3 Phase 3: Excavation**

Excavation commenced on Monday, 5th of July 1999 and was completed on schedule on Friday 22<sup>nd</sup> October. Our first priority was to investigate further the layout of field systems present towards the eastern side of the site. The field systems revealed within Area 2 consisted primarily of truncated ridge and furrow, seemingly aligned with respect to the underlying contours of the land in order to maximise drainage.

Excavation has shown that the site was first occupied in the Late pre Roman Iron Age (LPRIA) dateable to between c 50 BC-50 AD. The latest artefactual material recovered during excavation was a small assemblage of Saxon pottery dateable to the 6<sup>th</sup>-7<sup>th</sup> centuries AD.

At least two separate Romano British buildings have been identified, the first consisting of a series of substantial stone packed postholes and postpads, the second, clay packed postholes.

The vast majority of surviving features were found to be ditches indicating that considerable effort had gone into the maintenance of good drainage across the site throughout the lifetime of the farmstead.

## **4 METHODOLOGY**

All soil above the archaeological horizon (natural geology) was removed with a mechanical excavator under archaeological supervision. All archaeological

features were excavated by hand. All features / deposits were recorded using the AFU single context system. Each distinct cut, fill, and layer were allocated individual numbers.

The whole ground surface of the development area and the spoil heaps generated through machine stripping were repeatedly swept by a local metal detector user throughout the duration of the excavation.

## 5 SUMMARY OF RESULTS

Excavation has produced artefactual materials spanning a period of around 700 years from c 50 BC at least until the end of the 7th century AD.

The vast majority of surviving features were found to be ditches showing that considerable effort had gone into the maintenance of good drainage across the site throughout the lifetime of the farmstead. Shallow drainage or overflow channels had been cut between ditched enclosures with the aim of leading excess groundwater downslope. These small channels contained considerable quantities of pottery, which had probably been deliberately dumped into the newly dug features in order to ensure the flow of water through them.

Period 1: the late Iron Age / Romano British Transition.

Features from this period primarily consist of a series of large, segmented drainage / boundary ditches over 2m wide and over 1m in depth. These ditches contained occasional pottery, discarded animal bone and other farm waste products.

Included within this period is a Late Iron Age / early Romano-British pottery-making kiln. The kiln had been constructed directly over the infilling of the large, early ditches, thus providing a clear signal of their relative antiquity. This important feature produced a complete and exceptionally well preserved set of 'furniture' from the kiln's internal structure. In addition to the kiln furniture a number of near complete pottery vessels were recovered. These vessels were undoubtedly wasters, discarded after firing as they all display small flaws caused during this process.

Period 2: The Second to Third Centuries AD

Features from this period consist primarily of drainage / boundary ditches (often re-cut). These ditches contained considerable amounts of discarded animal bone and other farm waste products.

At least two separate Romano British buildings have been identified from this period, the first consisting of substantial stone packed postholes and postpads, the second, clay packed postholes.

Water supply for the period was provided by cisterns cut into the underlying boulder clay, two of which were identified through excavation.

Additional activity is evidenced by the presence of a possible drying / smoking oven, apparently constructed after the 'ritual' placement of a pair of iron shears and a *Follis* (copper alloy coin) of Constantius I (305 – 306 AD).

#### Period 3: The Third to Fourth Centuries AD

Features from this period primarily consist of drainage / boundary ditches. These ditches contained considerable amounts of discarded animal bone and pottery.

#### Period 4: The early Saxon Period

Features from this period are rare, consisting of at least one heavily truncated ditch. Material from the period is derived mainly from the top fills of previously infilled Romano-British ditches.

## **6 ASSESSMENT**

### **6.1 Quantification of the Archive**

19 sheets of context lists  
900 context records

3 sheets of plan registers  
122 plans at 1:50  
2 sheets of section register  
72 sections at 1:10

1 sheet of sample register  
1 sheet of environmental sample forms

5 sheets of site objects register

2 sheets of photographic index  
20 photographic register sheets  
6 B / W print films

7 Colour Print films  
7 Colour Slide films

## **6.2 STRATIGRAPHY AND PHASING**

### **6.2.i Provenance and Dating**

The activity revealed through excavation can be attributed to four broad periods.

Period 1: the late Iron Age / Romano British Transition.

Period 2: The Second to Third centuries AD

Period 3: The Third to Fourth Centuries AD

Period 4: The early Saxon Period

### **6.2.ii Range and Variety**

Feature types are exclusively negative, or cut features, from all periods represented, which contain at least one distinct fill. Intercutting or recut features are almost exclusively ditches, primarily intended for drainage. All features are cut directly into the natural underlying geology thus placing a heavy reliance on the stratigraphic record and artefact assemblages for dating / phasing purposes.

### **6.2.iii Condition**

It is highly likely that archaeological features across the site have been subject to a certain degree of horizontal truncation. The extent to which deposits and features have been modified in this way is unknown. Despite intensive agricultural usage in the post Medieval period little direct evidence of plough damage (i.e. plough marks) was apparent although the absence of banks or other up-standing features is seen as an indication that truncation has occurred. Individual feature definition was generally clear although the heavy clay soils frequently hampered specific deposit definition.

No waterlogged deposits were encountered although the preservation of paleoenvironmental data was fair.

### **6.2.iv The Written Record**

The site record has been checked for internal consistency and preliminary interpretation, and has been fully cross referenced. Drawn records in pencil have been fully checked and cross referenced with the context record. The drawn

record has also been combined with electronic survey data to produce a definitive site plan using Pro Cad and Adobe Illustrator software. The photographic record has been labelled and fully cross referenced with the context record.

All site records are held currently at the AFU headquarters at Fulbourn, the artefacts are currently held by the relevant artefact specialists and stored under the site code HAD MSA 99.

### **6.3 Artefactual Quantification**

#### **6.3.i Quantification of Lithics**

The lithic assemblage has been assessed by Barry John Bishop (See Appendix 1). Altogether 18 different contexts produced a total of 27 pieces of struck flint and 20.6g of unmodified burnt flint. All of the struck material recovered was examined and classified according to its colour, condition, quantity and type of original cortex present, degrees of recortication, completeness, size, striking platform type and width, bulb of percussion size, distal termination, dorsal scars, presence and angle of retouch and typology. This classification was recorded on to a database, which was used as the basis of the following analyses. All measurements follow Saville (1980) and descriptions assume the bulbar end nearest to the observer.

#### **6.3.ii Quantification of Animal Bone**

The animal bone has been assessed by Ian Baxter (See Appendix 2). A total of 19 boxes of animal bone were recovered from the site. The Boxes are 52x26.5x16.5cm. The boxes are on average about 2/3 full. The bones are washed and bagged by context.

The total weight of the hand-collected bone is 87Kg. This assessment is based on the contexts for which spot dates from pottery associations are available, comprising 31Kg or 35% of the total. Their distribution is as follows:

Iron Age: 4.125 Kg  
Iron Age/Roman 2.475 Kg  
Roman 1: 2.925 Kg  
Roman 1-2: 1.625 Kg  
Roman 2: 9.613 Kg  
Roman 3: 4.200 Kg  
Roman 4: 5.876 Kg

### 6.3.iii Quantification of Ceramics

The ceramic assemblage has been assessed by Jerry Evans. The pottery assemblage from HAD MSA 99 is, as a whole, well preserved. Around 6473 sherds were recovered from stratified contexts, seven main groups are represented which appear to be of later Iron Age, Roman, and Saxon date.

### 6.3.iv Human remains

The human remains have been examined by Corinne Duhig (See Appendix 4). Partial skeletal remains were recovered during the course of the excavation. The material from 561 fills less than half a skull box representing less than 5% of a complete skeleton, which is in a fragmentary condition as a result of Medieval, and later ploughing.

### 6.3.v Metal Work Catalogue

The metalwork assemblage has been examined by Nina Crummy. Material recovered during excavation (mainly through the use of metal detectors) has resulted in the production of small finds and bulk metal catalogues.

Only metal objects were examined. They break down by metal thus:

<i>copper alloy</i>	30
<i>iron</i>	12
<i>lead</i>	4
<b><i>Total</i></b>	<b>36</b>

No bone objects were recorded in the site register. Registered non-metallic objects were listed as ceramic or stone but not further identified.

Bulk metal objects were also recovered, mostly nails and mostly from the spoil heap.

The majority of the datable small finds belong to the Roman period, though there are several medieval items.

### 6.3.vi Coin Catalogue

The coin assemblage has been examined by Nina Crummy. Material recovered during excavation (mainly through the use of metal detectors) has resulted in the collection of 80 Roman coins.

## **6.4 Environmental Quantification**

### **6.4.i Quantification of Environmental Remains**

The flotation residues and molluscan assemblages have been assessed by Val Fryer (See Appendix 5). 17 samples were taken from across the excavated area and 12 were submitted for assessment.

### **6.4.ii Pollen column sample**

A single pollen column was taken during excavation from the base of the earliest surviving period I ditch. The sample has been assessed by Pat Wiltshire.

### **6.4.iii Phosphate Samples**

77 samples were collected to cast light on the distribution of phosphates in relation to the site as a whole. These samples have been assessed by Paul Middleton.

## **7 STATEMENT OF POTENTIAL**

### **7.1.i The Written Record**

The context record is the primary component of data upon which further analysis is to be based. However the lack of certain key stratigraphic relationships (due to the nature of the clay feature fills) will place a great deal of reliance upon the receipt of data from artefactual specialists prior to detailed phasing. The identification of groups and sub-groups of features by period, across the site, is key to attempting an understanding of the type and range of activities occurring. It is important that the results of this excavation be seen in context with the surrounding landscape and that the findings of other excavations within the local area are considered during the post excavation process. The context record when integrated with the results of artefactual information will provide a major new source of information on the use of what appears at present to be a small rural farmstead with its origins in the late pre Roman Iron Age

### **7.2 Artefactual**

The major question to be addressed during the analysis of the many records and artefacts collected during the excavation is whether the materials so far recovered provide an accurate representation of the activities of the farm itself or whether the bulk of the assemblage originated from the wider context of the villa estate. The

presence of box flue tiles and perhaps also the kiln bar fragments may suggest that the latter possibility is more likely.

Resolution of this issue is key to our interpretation of the artefactual assemblages recovered.

### **7.2.i Lithics**

Although only a preliminary examination was conducted, it has been established that this is an assemblage of some significance since it adds supporting evidence for the continuation of flintworking into the Iron Age. Due to its small size, however, any conclusions drawn must be regarded as tentative. It would therefore be considered desirable to examine the assemblage recovered from the site with the assemblage from previous investigations in order to facilitate a more fully considered debate on this contentious subject.

### **7.2.ii Faunal Remains**

The identified animal bone is of sufficient quantity and quality to provide a significant insight into the rural late Iron Age and Roman economy.

There may be sufficient data to compare differences in the frequency of the species in the different phases of occupation. This is a significant assemblage from a rural Late Iron Age to Saxon? settlement. If faunal remains from French's 1989 excavation were combined with the material from the present site this would provide a much more significant assemblage for comparison with sites of the same period regionally and nationally. It is essential that the faunal material from French's excavation be measured to facilitate this amalgamation.

### **7.2.iii Ceramics**

This is an assemblage of regional significance, which will provide an insight into the phasing, and function of the site. Pottery recovered ranges from the late Iron Age to the early Saxon period

Period 1: Late Iron Age/ Early Roman

The pottery attributed to the Late Iron Age / Early Roman period is of considerable importance in answering basic questions concerning the origins of the settlement. One of the most important aspects of this assemblage is the uncovering of a Belgic kiln, which produced shell tempered wares. This kiln is of regional significance since very little is known of production sites for shell tempered wares in the late Iron Age / Early Roman period. The Regional Research design for

Roman ceramics from the East Midlands (Martin and Wallace 1997) states that 'A primary need for the East Midlands is the study of shell-tempered wares ... both those made in the region and those traded in from outside'. Kiln sites are also identified as a priority by the society for the Promotion of Roman Studies (1985, 4.5.1.1) and by the Study Group for Roman Pottery (Willis 1997, 4.4.1).

#### Period 2 – 3: Roman

The majority of sherds from this assemblage can be dated to a mid/late Antonine date. Given the small number of such sites examined in the region the assemblage from this site is of regional importance. The present material offers an opportunity to compare with other recently excavated sites on Ermine Street. Furthermore the pottery from the Roman period will aid us in charting the development of the site.

#### Period 4 Saxon

There is a small amount of evidence for Saxon activity on or near the site of 5th-7th century date. However this material comes from buried ploughsoil features such as furrows and upper ditch fills. There seems to be very little suggestion of continuity from the Roman period, particularly as there are indications that occupation on the site may have ceased before the end of the 4th century.

#### 7.2.iv Human remains

The poor state of preservation of the bones limits the amount of further work on this assemblage.

#### 7.2.v Metalwork and Coins

The metalwork and coin assemblages represent a significant addition to material previously recovered during French's excavation. The metalwork assemblage offers important detail both in terms of the nature and range of activities being undertaken on the site, intensity of occupation and relative status. The coin assemblage offers potential for inter-sites comparison and the nature and may provide the clearest evidence for the end of occupation / use of the site.

#### 7.3 Environmental

##### 7.3.i Charred Plant Remains

Cereal grains/chaff and seeds/fruits of common segetal weeds were present at varying densities in all but samples 1 and 14. Preservation was moderate to good although some cereal grains and larger grass seeds were puffed and distorted, probably as a result of high temperatures during combustion. Barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains were recovered and spelt (*T. spelta*) chaff was

common throughout. Segetal weed species included stinking mayweed (*Anthemis cotula*), brome (*Bromus* sp.), indeterminate grasses, dock (*Rumex* sp.) and vetch/vetchling (*Vicia/Lathyrus* sp.). Seeds/fruits of wetland taxa including sedge (*Carex* sp.) and spike-rush (*Eleocharis* sp.) were also noted and a single fragment of hazel (*Corylus avellana*) nutshell was recorded from sample 6. Other plant macrofossils included fragments of charcoal and charred root, rhizome or stem and indeterminate seeds.

#### Other materials

The fragments of black porous 'cokey' material and the siliceous globules are probably the residues of the combustion of organic materials, including cereals and straw, at very high temperatures. Possible domestic/dietary refuse included small bone fragments, fish bones and pieces of avian eggshell.

#### Molluscs

Although specific sieving for molluscan remains was not undertaken, shells were noted in samples 1, 2, 10, 11 13 and 14. Species from all four of Evans (1972) ecological groups were present and fresh water taxa were also noted.

As with the samples from the 1989 excavation, charred plant macrofossils are rare and are probably derived from a very low density scatter of refuse. On the basis of this appraisal, it would appear that assessment of the following samples may provide information about on-site domestic, industrial and/or agricultural activities and may complement existing data from earlier excavations:

- 2      354    Pit fill, difficult to view fill 354 for crop processing it is more likely to represent domestic debris.
- 4      487    Pit fill and sample 11 may be an example of processing debris.
- 5      475    Pit fill, secondary context as fuel for an industrial process.

#### 7.3.ii Pollen Column Sample

A total of six sub samples (at 30mm, 100mm, 160mm, 260mm, 300mm and 360mm) were taken from the pollen column for the purposes of assessment. An initial examination of these samples has highlighted a significant concentration of palynomorphs around the 160mm level and a lower concentration at the 300mm level. For the purposes of analysis it is recommended that a maximum 10 further samples should be examined. This will provide important evidence of flora native to the area at the time of the foundation of the site.

#### **7.4 Phosphate Analysis**

Preliminary results from the Haddon material indicate strong variability in the concentrations of phosphate present. This suggests that specific activities have indeed enhanced local levels of phosphates and this is particularly evident in one building. The patterning of these concentrations will contribute to a fuller understanding of the potential role of structures and enclosures within the site.

### **8 RESEARCH AIMS**

The main aim of the post excavation analysis will be to produce a research archive and a publication which succinctly interprets the main elements of the site.

#### **8.1 Excavation Aims**

The broad aims of the excavation were:

- Aim 1* To produce a detailed description of all excavated / recorded features.
- Aim 2* To establish, where possible, secure grouping and phasing of all excavated / recorded features.
- Aim 3* To clearly identify and describe the elements characterising individual groups and phases.
- Aim 4* To attempt the interpretation of the functional nature of the site by group and period.
- Aim 5* To place the interpretation of this site within its local context with reference to previous work on sites in the immediate area.
- Aim 6* To place the interpretation of this site within its regional context with reference to contemporary and comparable sites in the region.
- Aim 7* To highlight the potential for re-assessment of any aspects of previous work in the local area where the findings of the recent excavations may indicate a re-appraisal either in terms of date or primary interpretation is required.
- Aim 8* To produce an accessible archive of the results.

*Aim 9* To disseminate the findings of the various aspects of this analysis through inclusion in a range of suitable publications.

The results of the excavation have demonstrated that the post excavation analysis and report will be able to address all of the above aims and that potential exists for the investigation of specific areas of research as set out below:

## 8.2 Research Objectives

Information from the excavations of French *et al* adjacent to the subject site suggests that particular emphasis will be given to addressing questions arising from evidence for agricultural production, and the nature / status of this rural Romano-British settlement.

Site specific research questions that can be addressed through this project are:

### Nature and Development of the Site

- 8.2.i The primary question concerns the nature of the site itself. The site at Haddon Lodge has its origins in the late Iron Age / Romano - British transitional period. It would appear that the site was occupied at this time although the size of settlement is rather smaller than that indicated by the results of French's excavation.
- 8.2.ii Analysis of those records and remains relating to the earliest phases of the site will provide a basis for comparison with sites of contemporary date and provide contrast when examining change in form and function of the site throughout the Roman period.
- 8.2.iii The nature and extent of occupation and utilisation of the site during the Romano - British period and the reasons for abandonment of the site remain unclear at present. It may be argued that the site was not utilised for human occupation during certain, as yet undefined periods during its life-span. Was it actually a farmstead or should we be viewing the site as a farmyard, utilised for specific tasks within the wider context of a villa estate?

### Function and Status

- 8.2.iv A reappraisal of the combined lithic assemblage may cast new light on the contentious issue of Iron Age flintworking and possibly add to our current knowledge of this subject. Identification of such a technology may add weight to the low status of the site.

- 8.2.v** From outset this site was specifically utilised for agricultural purposes. This remains the case through into the 4<sup>th</sup> Century AD. The functional nature of the site is highlighted by the presence of field systems, aisled buildings (traditionally interpreted as barns) and other structures.
- 8.2.vi** Status, in terms of material wealth, (as indicated by surviving artefactual materials) is relatively low throughout the life-span of the site.
- 8.2.vii** Site specific activities requiring further investigation through analysis include the nature of farming activities, pottery production, processing and water management including cisterns for water storage.
- 8.2.viii** Evidence for the economic basis of the site can be drawn from the lithics, small finds, coins, faunal and environmental assemblages.

### **Context**

- 8.2.ix** It is clear that this site should be seen in connection with the villa to the south, possibly as part of its estate. The proximity of both these sites to Ermine Street and thereby to Durobrivae (3km distance) is also a matter of importance in regard to the study of the economy of the site throughout the Roman period. During the Romano-Saxon transition the villa has demonstrated 5th century occupation and the site report for Haddon Lodge discusses large-scale deliberate infilling of ditches post-4th century. The recent excavation could therefore potentially help in studying this much debated period of history.
- 8.2.x** Perhaps the greatest challenge presented by this site will be clearly identifying those elements relating to the origins of the site and also its presumed decline during the fourth century, finally leading to abandonment, which may allow us to build upon, rather than restate, the findings of past excavators. Careful consideration of issues such as residuality will be required during analysis.

### **8.3 Regional Research Topics**

The following relevant topics are highlighted within the *Framework for the Eastern Counties: 2 Research Agenda*.

Current research issues have been devised in line with the *Framework for the Eastern Counties: 2 Research Agenda*, after a review of the excavation results:

- 8.3.i** “In the rural landscape there is a lack of even classification systems for settlements other than the typical ‘villa’ ..... rural settlements other than villas are under-represented .....” It is important to try to tie in landscapes of fields and trackways

with more detailed settlement evidence. (Going and Plouviez draft Research Agenda for Eastern Counties 1998).

**8.3.ii** 'Sites spanning the Iron Age - Roman transition should have a particularly high priority so far as faunal remains studies are concerned, to assess the extent to which the conquest affected patterns of production.'

**8.3.iii** 'Further work is needed on rural sites, characterising activities associated with crop cleaning, malting and storage. The scale and type of these activities provides a direct indication of the type of production (on a subsistence or market economy level).'

**8.3.iv** 'Our knowledge of faunal remains from military and rural sites is poor, and far more information is needed about the use of the countryside in Roman times'.

**8.3.v** 'Later settlements can often be dated quite closely from surface assemblages of coins and pottery where these have been collected and recorded. The latest dateable sites will potentially include post Roman levels which may be identified by stratigraphic sequence or by the 'curated sherd' assemblages of an aceramic population'.

## **9 METHODOLOGY**

### **9.1 The Stratigraphic Record (Research Objectives 8.2.i-8.2.viii)**

#### **9.1.i Selection of data for further analysis**

All relevant records will be subject to further interrogation upon receipt of specialist analytical reports upon specific artefactual materials. Parallels for specific feature types should also be sought from the results of previous excavations within the immediate area as an aid to interpretation. Equal consideration should be given to those features / deposits without any artefactual component as a contrast to cases of selective deposition / waste disposal, in order to fully examine spatial groupings and possible zonation, across the site.

#### **9.1.ii Grouping and Phasing**

A hierarchical approach to the analysis and interpretation of contextual information will be adopted. In the first instance the reconstruction of structural activities and events will be conducted through grouping of contemporary contexts. These groups will then be combined in order to define specific phases of activity.

Integration of data from artefactual analysis will then allow the placement of these phases within broad chronological periods (6.2.i).

As previously stated in section 7.1.i the occasional lack of certain key stratigraphic relationships places a reliance on the use of quantification and dating of artefactual / ecofactual assemblages. The utilisation of any particular technique in achieving final grouping and phasing will be determined by the nature of each specific deposit or assemblage of artefactual material. Techniques utilised will include:

- A Construction of the site Harris matrix prior to grouping and phasing contexts from the primary record will be undertaken whenever reliable stratigraphic data is available.
- B Artefact identification and categorisation by individual specialists. Used particularly when ceramic, lithic and faunal remains occur in discrete contexts, whether in isolation from, or in association with, other artefact types.
- C Gross quantification of specific artefact types. Used particularly to characterise assemblages containing a range of ceramic and/or faunal remains.
- D Where no artefactual / ecofactual data is available grouping and phasing may be attempted using inter and intra site comparisons with features of similar morphology and / or interpretation.

## **9.2 Artefacts**

For all categories listed below materials recovered from the evaluation must be integrated with the bulk of the excavation assemblages. Detailed methodologies and recommendations for analysis for specific assemblages are contained within the relevant appendix.

### **9.2.i Lithics (8.2.i, 8.2.ii, 8.2.iii, 8.2.v, 8.2.ii-ix inclusive, 8.3.v)**

Specific methodologies and aims relating to the analysis of the lithic assemblage are detailed in Appendix 1. The assemblage is of significance as it adds support for a continuation of flintworking into the Iron Age. Due to its small size, however, any conclusions drawn must be regarded as tentative. It is therefore considered desirable to examine any other assemblages recovered from the site, from previous investigations in order to facilitate a more fully considered debate on this contentious subject.

#### **9.2.ii Animal Bone (8.2.i, 8.2.ii, 8.2.iii, 8.2.vi-ix inclusive, 8.3.ii, 8.3.iv)**

Following full species identification further work on this important assemblage will include the recording of all available bone measurements from the 1989 and 1999 excavations. This would provide a useful database for comparison with sites of the same period both regionally and nationally essential to the proper analysis of the site itself.

All data useful for establishing the relative ages at death, teeth and epiphyseal fusion of long bones, and sex for the major species should also be recorded and analysed.

Further work is required on pathologies, any bone artefacts identified during analysis and intra-site comparisons.

It is intended that all animal bone records be entered on a custom designed database. See Appendix 2

#### **9.2.iii Ceramics (8.2.i -ix inclusive, 8.3.iii, 8.3.v)**

Any further work on this important assemblage would consider the chronological evidence for the site sequence, without which the structural sequence would remain just that, without any temporal relationship to other sites.

The various classes of ceramic fabrics occurring on the site in the 1<sup>st</sup> and 2<sup>nd</sup> centuries, the fabrics within them, the evidence they provide for supply to the site and the changes in this supply through time will be examined.

The regionally important evidence of the pottery kiln will then be presented, along with its kiln furniture and the other kiln furniture from the site, which suggests other kilns were also operating there.

Selective thin-section and chemical analysis are recommended on some products clearly associated with the kiln in order to present a scientific characterisation of them which may be of use to other researchers.

The functional composition of the coded assemblage and levels of finewares will be examined in order to provide the data to compare the site with others and characterise the nature of the pottery assemblage from the site and the nature and status of activity on the site. The information assembled will then be discussed.

#### **9.2.iv Human remains**

No further physical analysis or recording of the bones is required

## **9.2.v Metalwork and Coins (8.2.i, 8.2.ii, 8.2.iii, 8.2.v, 8.2.ii-ix inclusive, 8.3.v)**

A short small finds report should be prepared concentrating on the following items:

### **The shears and chain fragments**

These should be set in the context of other ritual and hoard deposits of ironwork. Smith's deposits in the Roman period vary markedly in size and in the range of items included. However, this particular deposit is most reminiscent of Iron Age ritual deposits of trade iron and weapons, some of which may have been made to mark the abandonment of a settlement.

### **The brooches**

The assemblage should be compared with the brooches found during earlier excavations, and with those from other farmstead sites in the area (*eg* Maxey).

### **Other finds**

A limited number of the other finds, including some of the medieval pieces, should be catalogued.

### **Other issues**

The unusual absence of common bone items, such as hairpins, spoons or game counters, does not appear to have been caused by acidic soil conditions as bone food refuse was recovered. It is, however, matched by an absence of bone objects among those found in previous excavations at Haddon, and possible reasons for this absence should be briefly explored.

### **Coins**

The coins should be examined by a numismatic specialist to enable the maximum amount of potential information to be made available. Amalgamation of this information with that from the earlier excavations will 1) provide a much clearer picture of the coin profile to be established and 2) enable the site to be set in the context of Reece's study of coin loss-types in Britain during the Roman period.

### **Conservation**

To date the project conservator Celia Honeycombe has completed the priority tasks identified as a result of a preliminary examination of the metalwork. Further work is recommended including the treatment and stabilisation of the remainder of the copper alloy objects, cleaning and conservation of coins where required.

Cleaning using air abrasion of any items required for display will have to be assessed on an object specific basis.

### **9.3 Environmental**

#### **9.3.i Charred Plant Remains (8.2.i - ix inclusive, 8.3.iii)**

The presence of plant macrofossils within those samples highlighted during assessment (Appendix V) could provide useful indicators of specific activities associated with the site. Therefore further analysis of these assemblages is recommended which may complement existing data from earlier excavations.

Whilst the presence of specific species of mollusc is of great use as a potential indication of phasing the method of sampling precludes detailed quantification and no further analysis is recommended.

The remaining sample residues should be retained for the duration of analysis as specific samples may still offer some potential for the broad phasing of individual features.

#### **9.3.ii Pollen Column Sample (8.2.i - ix inclusive, 8.3.iii)**

Sub samples 12-20 and 30-31 will be processed and the concentrations of palynomorphs present will be identified and counted. Depending on the level of resolution gained from these samples, a report will then be produced interpreting the data and providing comment from comparative assemblages from Cambridgeshire.

#### **9.3.iii Phosphate Samples**

The samples are treated with an acid digestion method, using a hydrochloric acid bath to extract phosphorus into solution. Since phosphorus is colourless, the solution is reacted with a reagent, using an adaptation of Murphy and Riley's standard molybdenum blue method and the resultant blue colour intensity is measured by use of a spectrophotometer. The more intense the blue colour, the higher the concentration of phosphorus that is present. This is quantified by reference to a standard curve.

### **9.4 Storage and Curation**

The archive is currently held at the AFU's headquarters at Fulbourn. The bulk of the material archive is to be prepared for storage at Peterborough Museum. Organic remains will be held in controlled environment stores.

## 10 TASK LIST

Key to abbreviations in Task Lists

FC = Finds Co-ordinator, ILL = illustrator, PM = Project Manager, PO = Project Officer, SC = Specialist Consultant

### 10.1 The Written Record

<b>Task</b>	<b>Days</b>	
Write individual feature / deposit descriptions	10	(PO)
Collate and review results of previous work from the local area	4	(PO)
Write background	1	(PO)
Discuss issues raised through assessment with post excavation team	1	(PO)
Discuss provisional grouping and phasing with post excavation team	1	(PO)
Review results of specialist analyses	2	(PO)
Compile list of illustrations / liase with illustrator	2	(PO/ILL)
Collate results of specialist analyses	5	(PO)
Discuss issues raised / results of collation with post excavation team	1	(PO/PM)
Produce plans/sections. location drawings	5	(ILL)
Compile excavation report	10	(PO)
Write summary of results / conclusions	2	(PO)
Incorporate illustrations	1	(ILL)
Edit report	2	(PM)
Incorporate Edits	2	(PO)
Proof reading	1	(PM)
Produce SMR summary	1	(PO)
Produce 'popular' synthesis	1	(PO)
Submit summary to PCAS / Britannia	1	(PO)
Archiving	2	(FC)
<b>TOTAL</b>	<b>55</b>	

### 10.2 Artefacts

#### 10.2.i Lithics

<b>Task</b>	<b>Days</b>	
Discuss issues raised through assessment with post excavation team	0.5	(SC)
Discuss provisional grouping and phasing with post excavation team	0.5	(SC)
Analysis	2	(SC)
Review results of specialist analyses	1	(SC)
Write lithic report	0.5	(SC)
Discuss issues raised / results of collation with post excavation team	0.5	(SC)
Prepare assemblage for archive	x	(FC)
<b>TOTAL</b>	<b>5</b>	

#### 10.2.ii Animal bone

<b>Task</b>	<b>Days</b>	
Discuss issues raised through assessment with post excavation team	0.5	(SC)

Discuss provisional grouping and phasing with post excavation team	0.5	(SC)
Classification and data entry	10	(SC)
Analysis	5	(SC)
Review results of specialist analyses	0.5	(SC)
Write animal bone report	5	(SC)
Discuss issues raised / results of collation with post excavation team	0.5	(SC)
Select bones / bone artefacts for illustration	0.5	(SC)
Recording of data from French (1989) excavation	5	(SC)
Prepare assemblage for archive	0.5	(FC)
<b>TOTAL</b>	<b>28</b>	

### 10.2.iii Ceramics

<b>Task</b>	<b>Days</b>	
Discuss issues raised through assessment with post excavation team	0.5	(SC)
Discuss provisional grouping and phasing with post excavation team	0.5	(SC)
Produce detailed fabric descriptions	2	(SC)
Review results of specialist analyses	0.5	(SC)
Code Pottery	17	(SC)
Samian Report	1	(SC)
Mortaria Report	1	(SC)
Thin Section Analysis	4	(SC)
Discuss issues raised / results of collation with post excavation team	0.5	(SC)
Draft Reports	11	(SC)
Select ceramic artefacts for illustration	1	(SC)
Prepare assemblage for archive	0.5	(FC)
<b>TOTAL</b>	<b>39.5</b>	

### 10.2.iv Human Remains

<b>Task</b>	<b>Days</b>	
No further work recommended		

### 10.2.v Metalwork

<b>Task</b>	<b>Days</b>	
Discuss issues raised through assessment with post excavation team	0.5	(SC)
Comparative research	2	(SC)
Report production	1	(SC)
<b>TOTAL</b>	<b>3.5</b>	

### 10.2.vi Coins

<b>Task</b>	<b>Days</b>	
Discuss issues raised through assessment with post excavation team	0.5	(SC)
x-ray coins	1	(SC)
Catalogue	1	(SC)
Numismatic and Stratigraphic contexts	1	(SC)
Report production	1	(SC)
<b>TOTAL</b>	<b>4.5</b>	

### 10.2.vii Conservation

<b>Task</b>	<b>Days</b>	
Conservation and stabilisation	7	(SC)
<b>TOTAL</b>	<b>7</b>	

### 10.3 Environmental

#### 10.3.i Charred Plant Remains

<b>Task</b>	<b>Days</b>	
Discuss issues raised through assessment with post excavation team	0.5	(SC)
Sort flots and ID macrofossils	0.5	(SC)
Data tabulation and Report production	1	(SC)
<b>TOTAL</b>	<b>2</b>	

#### 10.3.ii Pollen column sample

<b>Task</b>	<b>Days</b>	
Discuss issues raised through assessment with post excavation team	0.5	(SC)
Discuss provisional grouping and phasing with post excavation team	0.5	(SC)
Processing and analysis	7	(SC)
Data tabulation and Report production	1	(SC)
<b>TOTAL</b>	<b>9</b>	

#### 10.3.iii Phosphate Analysis

<b>Task</b>	<b>Days</b>	
Discuss issues raised through assessment with post excavation team	0.5	(SC)
Preparation / analysis of samples	1	(SC)
Data tabulation and Report production	1	(SC)
<b>TOTAL</b>	<b>2.5</b>	

11 PROJECT PERSONNEL

NAME	ROLE	EMPLOYER
Ian Baxter	Animal Bone Analysis	Freelance
Barry John Bishop	Lithic Analysis	Freelance
Nina Crummy	Metalwork	Freelance
Corrinne Duhig	Human Skeletal Remains	Freelance
Jerry Evans	Ceramic Analysis	Freelance
<i>S H Willis</i>	<i>Samian Ware</i>	<i>Freelance</i>
<i>K F Hartley</i>	<i>Mortaria Stamps</i>	<i>Freelance</i>
<i>V G Swan</i>	<i>Kiln Specialist</i>	<i>Freelance</i>
<i>A Vince &amp; J Cooper</i>	<i>Thin Section / Chemical</i>	<i>Freelance</i>
Peter Guest	Numismatist	Freelance
Val Fryer	Environmental Analysis	Freelance
Mark Hinman	Lead Author / PX Co-Ordinator	AFU
Jon Cane	Illustrator	AFU
Spencer Cooper	PX Assistant	AFU
Celia Honeycombe	Conservator	Cambs County Council
Anne Marie Bojko	Coin X-ray	Freelance
Tim Malim	Project Manager / Editor	AFU
Paul Middleton	Phosphate Analysis	Freelance
Pat Wiltshire	Pollen Analysis	Freelance

## 12 ASSESSMENT TIMETABLE

NAME	ROLE	TASK	DEADLINE
Ian Baxter	Animal Bone Analysis	Analysis report	December 2000
Barry John Bishop	Lithic Analysis	Analysis report	December 2000
Nina Crummy	Metalwork	Analysis report	December 2000
Anne Marie Bojko	X-ray Coins		August 2000
Peter Guest	Numismatist	Analysis report	October 2000
Jerry Evans	Ceramic Analysis	Analysis report	December 2000
<i>S H Willis</i>	<i>Samian Ware</i>	<i>Liase with JE</i>	<i>October 2000</i>
<i>K F Hartley</i>	<i>Mortaria Stamps</i>	<i>Liase with JE</i>	<i>October 2000</i>
<i>V G Swan</i>	<i>Kiln Specialist</i>	<i>Liase with JE</i>	<i>October 2000</i>
<i>A Vince &amp; J Cooper</i>	<i>Thin Section / Chemical</i>	<i>Liase with JE</i>	<i>October 2000</i>
Val Fryer	Environmental Analysis	Analysis report	December 2000
Mark Hinman	Lead Author / PX Co-Ordinator	Compile specialist reports	February 2001
Mark Hinman	Lead Author / PX Co-Ordinator	Compile final report	March 2001
Mark Hinman	Lead Author / PX Co-Ordinator	Complete final report	April 2001*
Spencer Cooper	PX Assistant	Phasing	April 2000
Spencer Cooper	PX Assistant	Text sections	October 2000
Celia Honeycombe	Conservator	Conservation	July 2000
Tim Malim	Project Manager / Editor	Editor	March 2001*
Paul Middleton	Phosphate Analysis	Analysis report	December 2000
Pat Wiltshire	Pollen Analysis	Analysis report	

\* Following completion of the final report a suitable outlet for publication will be sought

## 13 CONCLUSION

The presence of such a site will add important new information concerning the origins of late Iron Age/Early Roman rural farmsteads. It will be necessary to integrate the results from French's excavation in order to compare this with other similar sites within the region. Detailed quantification and analysis of the ceramic and faunal assemblages is essential if we are to be able to draw comparisons with or distinctions from other sites in the area

## BIBLIOGRAPHY/REFERENCES

### Excavation

Cambs. SMR

Cambs. Archaeology Section Parish Files

Cooper N, 1989, *A Study of the Pottery from the Lower Nene Valley Kiln Site at Park Farm, Stanground, Peterborough, Cambs.* Journal of Roman Pottery Studies 2.

Ellis P, et al, 1998, *Excavations Alongside Roman Ermine Street, Cambs.* BAR 276

The Five Counties Committee, *Research and Archaeology: A Resource Assessment for the Eastern Counties*, EAA occasional paper, October 1996.

French CAI, 1994 *The Archaeology along the A605 Elton-Haddon Bypass, Cambridgeshire Fenland Archaeological Trust /Cambridgeshire County Council.*

Mackreth, D F, 1996 *Orton Hall Farm: A Roman and Early-Saxon Farmstead.* EAA 76.

Young R and Humphrey J, 1999. *Flint Use in England after the Bronze Age: Time for a Re-Evaluation?* The Prehistoric Society, Vol 65.

### Animal Bone

Albarella, U., Beech, M. and Mulville, J. 1997, *The Saxon, Medieval and Post-medieval mammal and bird bones excavated 1989-1991 from Castle Mall, Norwich (Norfolk)*, London: English Heritage AML Report 72/97.

Armitage, P.L. and Clutton-Brock, J. 1976, A System for Classification and Description of the Horn Cores of Cattle from Archaeological Sites, *Journal of Archaeological Science* 3, 329-348.

Davis, S.J.M. 1992, *A rapid method for recording information about mammal bones from archaeological sites*, London: English Heritage AML Report 19/92.

Davis, S.J.M. 1997, The Agricultural Revolution in England: some zoo-archaeological evidence, *Anthropozoologica* 25/26, 413-428.

French, C.A.I. 1994, *The Haddon Farmstead and a Prehistoric Landscape at Elton: The archaeology along the A605 Elton-Haddon bypass, Cambridgeshire*, Cambridge: Fenland Archaeological Trust/Cambridgeshire County Council.

### **Lithics**

Brown, A. 1991 Structured Deposition and Technological Change among the Flaked Stone Artefacts from Cranbourne Chase. In J. Barrett, R. Bradley and M. Hall (Eds.) *Papers on the Prehistoric Archaeology of Cranbourne Chase*, 101-133. Oxbow Monograph 11. Oxford.

Edmonds, M. 1995 *Stone Tools and Society: Working Stone in Neolithic and Bronze Age Britain*. Batsford. London.

Ford, S., Bradley, R., Hawkes, J. and Fisher, P. 1984 Flint-Working in the Metal Age. *Oxford Journal of Archaeology* 3, 157-173.

Herne, A. 1991 'The Flint Assemblage.' In I. Longworth, A. Herne, G. Varndell & S. Needham. *Excavations at Grimes Graves Norfolk 1972-1976. Fascicule 3. Shaft X: Bronze Age Flint, Chalk and Metal Working*, 21-93. British Museum. Dorchester.

Orme, B.J., Coles, J.M. and Silvester, R.J. 1983 Meare Village East 1982. *Somerset Levels Papers* 9, 49-73.

Pollard, J. 1996 Iron Age Riverside Pit Alignments at St. Ives, Cambridgeshire. *Proceedings of the Prehistoric Society* 62, 93-115.

Saville, A. 1981 Iron Age Flintworking: Fact or Fiction? *Lithics* 2, 6-9.

Saville, A. 1980 On the measurement of struck flakes and flake tools. *Lithics* 1, 16-20.

Saville, A. 1990 The flint and Chert Artefacts. In M. Bell *Brean Down: Excavations 1983-1987*, 152-157. English Heritage. Hertford.

Smith, A.J. 1981 Flint. In B.J. Orme, A.E. Caseldine and G.N. Bailey: Meare Village West 1979. *Somerset Levels Papers* 7, 12-69.

Winham, R.P. 1985 Flint. In P.J. Fasham: The Prehistoric settlement at Winnall Down. *Hampshire Field Club and Archaeological Society Monograph* 2, 84-87.

### **Ceramics**

Fulford MG and Huddleston K., 1991, *The current state of Romano-British pottery studies*; a review for English Heritage

Howe, M.D., Perrin, J.R., and Mackreth, D.F., 1980, *Roman pottery from the Nene Valley; a guide*, Peterborough City Museums Occas paper No 2, Peterborough

Martin, T.S., and Wallace, C.R., 1997 *A regional research design for the study of Roman pottery in the East Midlands and East Anglia*, in Willis, S.H., 1997

Willis, S.H., 1997, *Research frameworks for the study of Roman pottery*, SGRP

### **Human Remains**

Cho, H., A.B. Falsetti, J. McIlwaine, C. Roberts, P.S. Sledzik & A.W. Willcox. 1996. Handbook of the Forensic Anthropology Course of the Department of Archaeological Sciences, University of Bradford and the NMHM/AFIP, Washington D.C.

Kennedy KAR 1989. Skeletal markers of occupational stress. In Iscan and Kennedy (eds.) *Reconstruction of life from the skeleton*: 129-60. New York: AR Liss.

Ubelaker, D.H. 1989. *Human skeletal remains: excavation, analysis, interpretation*. (Manuals on Archaeology 2). Washington: Taraxacum for Smithsonian Institution.

### **Charred plant remains**

Evans, J., 1972 *Land Snails in Archaeology*. London

French, C.A.I. et al 1994, The Archaeology along the A605 Elton-Haddon Bypass, Cambridgeshire.

Upex, 1993, Excavations at a Roman and Saxon Site at Haddon, Cambridgeshire 1992-3.

### **Phosphate Sampling**

Dick, W A and Tabatai 1977 *An Alkaline oxidation method for determination of total phosphorus in soils*, J Soil Science Soc. Of America 41, 511-514.

Murphy J and Riley, J P 1962 *A modified single solution method for the determination of phosphate in natural waters*, Anal. Chim. Acta 27, 31-36.

## APPENDICES

### I LITHIC QUANTIFICATION AND ASSESSMENT.

#### Lithic Assessment

Barry John Bishop

#### Introduction

An archaeological Excavation at Haddon Lodge, Cambridgeshire, produced a total of 27 pieces of struck flint and 20.6g of unmodified burnt flint (see Table 1). The material originated from a variety of contexts, most of which could be considered to be dateable to the Iron Age.

All of the struck material recovered was examined and classified according to its colour, condition, quantity and type of original cortex present, degrees of recortication, completeness, size, striking platform type and width, bulb of percussion size, distal termination, dorsal scars, presence and angle of retouch and typology. This classification was recorded on to a data base, which was used as the basis of the following analyses. All measurements follow Saville (1980) and descriptions assume the bulbar end nearest to the observer.

#### Quantification

Context	Complete Flakes	Retouched	Core tool	Cores	Total Struck	Edge trimmed flake	Misc. Ret.	Scraper	Burnt Chunks (g)
+	0	1	0	0	1	0	0	1	0
250	0	0	0	0	0	0	0	0	0.7
259	0	0	0	0	0	0	0	0	1.7
268	1	0	0	0	1	0	0	0	0
301	0	1	0	0	1	1	0	0	0
342	0	1	0	0	1	0	1	0	0
350	0	0	0	0	0	0	0	0	2.9
353	1	0	0	0	1	0	0	0	0
385	2	0	0	0	2	0	0	0	0
430	0	0	1	0	1	0	0	0	0
482	0	0	1	0	1	0	0	0	0
485	4	2	0	2	8	0	2	0	0
716	0	1	1	0	2	0	0	1	0
722	3	0	0	1	4	0	0	0	0
726	0	0	0	0	0	0	0	0	9.1
732	1	0	0	0	1	0	0	0	6.2
748	0	1	0	0	1	0	1	0	0
Tr. 6	0	2	0	0	2	0	1	1	0
Total	12	9	3	3	27	1	5	3	20.6

Table 1: Quantification by context

## **Burnt Chunks**

A small quantity of burnt flint was recovered; this had been humanly modified by being burnt but exhibited no signs of previous or subsequent modification. Where identifiable, all of the burnt flint consisted of smooth rolled or thermally shattered gravel pebbles.

The degree of burning was variable, with some pieces still retaining their original colour and cortex type, but most had been burnt to the extent that they had completely shattered and changed colour, as is consistent with having been in or near a hearth.

## **The Struck Assemblage**

### **Condition**

The struck material was mostly in a good condition, (exhibiting no signs of abrasion on the surface ridges and with thin feather edges surviving), with a few pieces in slightly chipped condition (showing minor damage to the thinner edges, consistent with some minor trampling and taphonomic movement). This would suggest that the assemblage had experienced little taphonomic disruption and was recovered from close to where it had been discarded. A few pieces had become fully recorticated but most were still fresh in appearance with no recortication evident.

### **Raw Material**

All of the struck material consisted of flint or cherty flint. All but one of the struck pieces exhibited thermally fractured, smooth cortex indicating an origin from derived alluvial sources, available in the vicinity of the site. The exception, which was more likely to have been obtained from sources closer to the parent chalk, exhibited a chalky cortex. Such material would not be available near the site, indicating that the struck piece or the raw material had been transported for some distance.

The colour of the flint was variable, ranging from translucent to opaque blacks, browns and greys, and was frequently very cherty in appearance. This variety would also indicate that much of the raw material originated from deposits derived from mixed sources, such as alluvial pebble deposits.

### **Technology**

The basic technological strategy consisted of maximising the potential of the limited qualities of the raw material, and geared towards immediate use rather than curation, employing an ad-hoc and expedient approach to obtain serviceable edges, either from broad thick flakes or on the 'cores' themselves.

## Cores

Three cores were recovered. A thermally shattered core fragment and an opportunistically reduced core with a few removals from a thermal plane at one end and a keeled platform at the opposed end were recovered from context [485]. A small carefully reduced narrow flake/small blade core was recovered from context [722].

## Core Tools

Three core tools, where all removals from the core could be regarded as by-products, were identified. One, recovered from context [482] consisted of a rounded pebble with flaking and heavy battering at one end was consistent with use as a heavy duty pounding type tool. The other two were made on thermal shattered chunks, one from context [403], had crude denticulate flaking along one side and the other, from context [716] had steep scalar flaking along one edge. Both were consistent with use as scrapers.

## Unretouched Flakes and Blades

Although only a small number of complete flakes were recovered, they were short, broad and thick (see Table 2).

Attribute	Maximum	Average	Standard Deviation
Length (mm)	38	24.7	6.4
Breadth (mm)	45	28.1	7.8
Length/Breadth	1.4	0.93	0.3
Width (mm)	12	7	3.2
Weight (g)	14.3	5.2	4.2

Table 2: Maximum, average, and standard deviation of metrical characteristics of all complete flakes over 10mm.

The majority of striking platforms were plain, cortical or with minimal trimming of the core face. The average thickness of the platform was 5.3mm with a standard deviation of 3.3mm. Many platforms exhibited incipient Hertzian cones from unsuccessful attempts at flaking. Most bulbs of percussion were intermediate or pronounced, and feather distal terminations were in a minority. The large number of multi-directional dorsal scars demonstrate the largely *ad hoc* nature of the reduction sequence, and fully cortical, single or uni-directional scarring testified to the short length of the reduction sequence. These would indicate a largely hard hammer technology with an opportunistic and unsystematic approach to reduction.

## Retouched Items

Nine retouched flakes were recovered, comprising a third of the assemblage (see Table 3).

Context	Type	Comments
+	Scraper	Thumbnail scraper: classic fully invasively retouched dorsal around 90% of circumference
Tr 6	Miscellaneous	Blade with moderate scalar retouch making notch or obliquely truncating distal at break; possible utilisation gloss and damage along left margin
Tr 6	Scraper	End and side; crude scalar retouch around distal and both margins of dorsal; crushing to working edges
301	Knife	Small fragment of a flake with shallow marginal retouch along right ventral
342	Miscellaneous	Evidence of utilisation or crude retouch on left dorsal near bulbar end
485	Miscellaneous	Crude abrupt retouch along left dorsal; differences in recortication suggest this occurred later than the flakes manufacture.
485	Miscellaneous	Crude abrupt retouch blunting right dorsal; crudely made spur on left dorsal; light wear
716	Scraper	Side scraper; crude scalar retouch along right dorsal of this crudely made flake
748	Miscellaneous	Crude moderate scalar retouch along left ventral near distal end; fine scalar retouch along right dorsal near bulbar end; forms a spurred flake

Table 3: Description of retouched implements

Few formal types were recovered, with miscellaneous retouch being the commonest type recovered. Of the formal types, the only truly diagnostic type was the unstratified small invasively retouched 'thumbnail' scraper. These have usually been dated to the Early Bronze Age, often associated with the 'beaker package' and possibly used for bodily grooming (Edmonds 1995, 140-1). The miscellaneous retouched flake from context [485] was in a battered and rolled state and differences in the degree of recortication of the flake and its crude retouch suggest that the flake had been retouched some considerable time after its manufacture. Similarly, although the notch in the blade from Trench 6 was in a similar state of recortication as the blade itself, small chips and utilisation traces along its lateral margins in a less developed state of recortication suggest that it may have been reused some considerable time after its original manufacture.

## Discussion

The lithic assemblage from Haddon Lodge was small, and with the exception of one or two pieces, consisted of a crude flake and pebble tool industry. It was characterised by its use of immediately available thermally flawed pebbles as raw material, and an *ad hoc*, opportunistic and minimal reduction strategy. This produced short, squat and thick flakes, often retaining considerable cortex and with wide plain platforms often exhibiting incipient Hertzian cones, thick bulbs of percussion and frequent hinged distal terminations. The assemblage included reused struck flints from earlier industries, minimally reduced core tools and a high retouched component. These characteristics are usually considered typical of the flintworking traditions of the Middle or Late Bronze Age (*cf.* Ford *et al.* 1984; Saville 1990; Brown 1991; Herne 1991; Edmonds 1995). The circumstances of recovery, however, especially those from context [482] and [485], strongly suggest that this minimalist and opportunistic style of flintworking may have continued into, or re-emerged during, the Iron Age. The unstructured knapping of immediately available pieces of flint until a serviceable edge, either on the flakes or the cores themselves, does not require the survival and transmission of complex

and culturally acquired traditions of knowledge, but merely an understanding of the basic properties of flint. There is no fundamental reason, either technological or cultural, why flintworking could not continue, or at least temporarily re-emerge, as a viable alternative to other raw materials such as iron, especially if the supply of those raw materials were to fluctuate.

The problem of identifying unsuspected and crudely produced assemblages in the field, either due to material being mistaken as naturally damaged flint or being considered residual, ultimately makes it difficult to prove any assemblage was the product of Iron Age flintworking, and debate on this issue continues (eg. Smith 1981; Saville 1982; Orme *et al.* 1983; Winham 1985; Pollard 1996). The nature of this assemblage and the context of its recovery, however, add to the growing body of evidence for this continuation, if only sporadically and at a local level.

A few pieces belong to different technological traditions. These include the pieces already mentioned but also include the small blade core from context [722] and the retouched blade recovered from Trench 6, both of which were unlikely to have been produced much later than the Early Neolithic.

### **Recommendations**

The cataloguing on to database, and description of the assemblage that this report forms, is all that is required for the archiving of this site. The assemblage is of significance as it adds support for a continuation of flintworking into the Iron Age. Due to its small size, however, any conclusions drawn must be regarded as tentative. It would therefore be considered desirable to examine any other assemblages recovered from the site, either from previous investigations or any undertaken in the future, in order to facilitate a more fully considered debate on this contentious subject.

## **II ANIMAL BONE ASSESSMENT REPORT**

**Ian L. Baxter BA.**

The site at Haddon Lodge was excavated in July-September 1999 by Cambridgeshire County Council Archaeological Field Unit, under the direction of Mark Hinman. It is located adjacent to the A1 south west of the junction with the A605. This site forms part of the Iron Age and Romano-British settlement previously excavated by C.A.I. French in 1989 (French 1994).

The excavation has brought to light evidence of occupation spanning the Iron Age to the 4<sup>th</sup> century AD. Most of the features consist of ditches and gullies, but pits, kilns, and structural evidence in the form of beam slots and postholes were also

located and excavated. For the purposes of this report seven phases of occupation are provisionally defined based on pottery associations:

Period 1	Iron Age Iron Age/Roman Roman 1 (50-100 AD)
Period 2	Roman 1-2 (50-150 AD) Roman 2 (150-200 AD)
Period 3	Roman 3 (150-250 AD) Roman 4 (250-350+ AD)

#### The Animal Bone Assemblage

**Recovery:** all the bones forming the basis of this assessment were collected by hand.

**Residuality and contamination:** at the time of writing this report there is no information regarding residuality and contamination.

**Context:** animal bones mainly derive from ditches, but bones from pits, gullies, kiln-associated features, beam slots and postholes have also been found.

**Preservation:** the preservation of the bone surface was on average fairly good with relatively few badly damaged specimens. Much of the bone is highly fragmented but there are relatively few gnawed fragments.

**Storage and quantity:** the animal bones are stored in 19 cardboard boxes of the following size: 52x26.5x16.5cm. The boxes are on average about 2/3 full. The bones are washed and bagged by context.

The total weight of the hand-collected bone is 87Kg. This assessment is based on the contexts for which spot dates from pottery associations are available, comprising 31Kg or 35% of the total. Their distribution is as follows:

Iron Age: 4.125 Kg  
Iron Age/Roman 2.475 Kg  
Roman 1: 2.925 Kg  
Roman 1-2: 1.625 Kg  
Roman 2: 9.613 Kg  
Roman 3: 4.200 Kg  
Roman 4: 5.876 Kg

The animal bones from Haddon Lodge are presently stored at the CCC AFU offices at Fulbourn Community Centre, Cambridge.

## Assessment

**Methods:** all the contexts for which pottery spot dates are available have been used as the basis for this assessment, at least 34%. Numbers of “countable” bones, ageable mandibles and measurable bones are recorded in Table 1. The counting system was based on a modified version of the system suggested by Davis (1992) and used by Albarella *et al.* (1997).

**Variety:** all the assemblages are dominated by the most common domestic mammals, as is normally the case for sites of this period. Cattle are predominant in all phases, but this may be affected in part at least to a recovery bias. Cattle remains include a possibly poll-axed small horned (Armitage and Clutton-Brock 1976) cranium in Roman 4 ditch (246), other cattle crania were noted in Roman 2 ditches (570) and (743), a partial skeleton (including cranium) in presently unphased ((442), a 1<sup>st</sup> phalanx from Roman 3 ditch (284) with exostoses suggestive of a draught animal, a very splayed metacarpal in Roman 2 ditch (566) also from a probable draught beast. Cattle M<sub>3s</sub> with missing third pillar (hypoconulid) were noted in Iron Age ditch (565), Iron Age/Roman ditch (315), and Roman 1 ditch (573). This may demonstrate a genetic continuity between the pre-Roman Iron Age cattle and those of the 1<sup>st</sup> century AD (Davis 1997). Significantly larger cattle remains from later phases may indicate the importation of stock from Continental Europe later in the Roman period. Horse bones are also relatively common, including several ageable mandibles and a partial skeleton in presently unphased (722). Domestic dog remains are infrequent but include the partial skeleton of a medium sized animal from Iron Age ditch (815). Wild species are infrequent and appear to comprise only bird species. A partial raven skeleton was found in Iron Age ditch (567) and a wild duck (sub-mallard size) bone in Iron Age gully (841).

**Quantity:** this is a medium sized assemblage. The assemblages from the various phases are likely to be small but may possibly demonstrate differences in the stock kept and increases in general size over time.

## Potential and recommendations

**Potential:** there may, possibly, be enough data to compare differences in the frequency of the species in the different phases of occupation. It is, however, very unfortunate that no metrical data were taken on the equally large (or even larger) assemblage from the earlier excavations conducted by French (French 1994). If these measurements could be taken it would greatly increase the database available to evaluate the settlement as a whole through its various phases of occupation. Therefore, on the advice of the director of the present excavation (Mark Hinman pers. comm.), the author of this report has appended estimated costings for the measurement of the animal bones from the 1989 excavations to this report.

This is a significant assemblage from a rural Iron Age to Late Roman settlement site. If combined with the earlier excavations conducted in 1989, of similar or even greater size, it would comprise a significant data set for comparison with sites of the same period in Cambridgeshire and beyond.

**Recommendations:** the assemblage from the 1999 excavations is worth full investigation. If the unrecorded metrical data from the 1989 excavations could be combined with that from the present site it would provide a much more significant data set for comparison between the various phases of site occupation, and also for regional and national comparison. However, this can only be undertaken if the phasing, and preferably dating, for all relevant contexts can be provided.

The recording of the animal bones should only start when final information about residuality can be provided. Final phasing will be essential to undertake the analysis of the data.

PERIOD	COUNTABLE BONES						
	Cattle	Sheep/Goat	Pig	Others	Bird	Total	Comments
Iron Age assessment	27	17	4	3	6	57	Includes horse, dog, raven, duck
<b>Iron Age estimated total</b>	<i>81</i>	<i>51</i>	<i>12</i>	<i>9</i>	<i>18</i>	<i>171</i>	
Iron Age/Roman assessment	18	11	5	-	-	34	
<b>Iron Age/Roman estimated total</b>	<i>54</i>	<i>33</i>	<i>15</i>	-	-	<i>102</i>	
Roman 1 (50-100 AD) assessment	20	8	1	2	-	31	Includes horse
<i>Roman 1 (50-100 AD) estimated total</i>	<i>60</i>	<i>24</i>	<i>3</i>	<i>6</i>	-	<i>93</i>	
Roman 1-2 (50-150 AD) assessment	12	9	-	-	-	21	
<b>Roman 1-2 (50-150 AD) estimated total</b>	<i>36</i>	<i>27</i>	-	-	-	<i>63</i>	
Roman 2 (150-200 AD) assessment	40	21	7	9	-	77	Includes horse, dog
<b>Roman 2 (150-200 AD) estimated total</b>	<i>120</i>	<i>63</i>	<i>21</i>	<i>27</i>	-	<i>231</i>	
Roman 3 (150-250 AD) assessment	13	7	1	-	-	21	
<b>Roman 3 (150-250 AD) estimated total</b>	<i>39</i>	<i>21</i>	<i>3</i>	-	-	<i>63</i>	
Roman 4 (250-350 AD) assessment	10	3	1	1	-	15	Includes horse
<b>Roman 4 (250-350 AD) estimated total</b>	<i>30</i>	<i>9</i>	<i>3</i>	<i>3</i>	-	<i>45</i>	
<b>TOTAL (assessment)</b>	<b>140</b>	<b>76</b>	<b>19</b>	<b>15</b>	<b>6</b>	<b>256</b>	
<b>TOTAL (estimated)</b>	<b><i>420</i></b>	<b><i>228</i></b>	<b><i>57</i></b>	<b><i>45</i></b>	<b><i>18</i></b>	<b><i>768</i></b>	

**Table 1. Haddon Lodge. Hand-collected assemblage. Number of "countable" bones (Davis 1992; Albarella *et al.* 1997) used for assessment and estimates of their total. The estimated total is calculated on the percentage of bone weight used for assessment (approximately 34%).**

PERIOD	AGEABLE MANDIBLES				MEASUREMENTS					
	Cattle	Sheep/Goat	Pig	Total	Cattle	Sheep/Goat	Pig	Others	Bird	Total
Iron Age assessment	-	2	-	2	5	7	-	3	4	19
<b>Iron Age estimated total</b>	-	6	-	6	15	21	-	9	12	57
Iron Age/Roman assessment	3	2	-	5	2	5	1	-	-	8
<b>Iron Age/Roman estimated total</b>	9	6	-	15	6	15	3	-	-	24
Roman 1 (50-100 AD) assessment	1	4	-	5	6	6	1	1	-	14
<b>Roman 1 (50-100 AD) estimated total</b>	3	12	-	15	18	18	3	3	-	42
Roman 1-2 (50-150 AD) assessment	-	2	-	2	2	6	-	-	-	8
<b>Roman 1-2 (50-150 AD) estimated total</b>	-	6	-	6	6	18	-	-	-	24
Roman 2 (150-200 AD) assessment	-	3	-	3	2	13	-	1	-	16
<b>Roman 2 (150-200 AD) estimated total</b>	-	9	-	9	6	39	-	3	-	48
Roman 3 (150-250 AD) assessment	1	-	-	1	3	6	-	-	-	9
<b>Roman 3 (150-250 AD) estimated total</b>	3	-	-	3	9	18	-	-	-	27
Roman 4 (250-350) assessment	-	-	-	0	2	1	-	1	-	4
<b>Roman 4 (250-350) estimated total</b>	-	-	-	0	6	3	-	3	-	12
<b>TOTAL (assessment)</b>	5	13	0	18	22	44	2	6	4	78
<b>TOTAL (estimated)</b>	15	39	0	54	66	132	6	18	12	234

### **III POTTERY AND KILN FURNITURE ASSESSMENT**

**Jerry Evans**

#### **The Ceramic Assemblage**

##### **Recovery**

All the sherds forming the basis of this assessment were collected by hand

##### **Quantity**

Around 6473 sherds of Roman pottery were recovered from the site, in stratified contexts, which appear to be of later Iron Age, Roman or Saxon date. This is a large sized assemblage for this type of site and will be important in understanding the origins and subsequent development of the site. In addition substantial kiln furniture was recovered from the Belgic style kiln. Around 119 fragments and complete kiln bars were recovered

This is a large sized assemblage for this type of site and will be important in understanding the origins and subsequent development of the site.

##### **Introduction**

Amongst the pottery recovered from the excavations there are few contexts and small groups, which could be as early as the later Iron Age. More material would seem to belong to the first half of the first century, and there would seem to be quite a strong representation in the later 1<sup>st</sup> and earlier 2<sup>nd</sup> century.

Many contexts can only be dated to a mid/late Antonine or later date by the presence of Nene Valley colour-coated ware, but the frequency of Nene Valley greywares, relative to colour-coated wares in the overall assemblage would seem to suggest that much of the recovered pottery is of later 2<sup>nd</sup>-3<sup>rd</sup> century date, rather than later, as Nene Valley greyware would seem to have ceased production around the end of the 3<sup>rd</sup> century or early in the 4<sup>th</sup>.

There seems to be little indication of much later 4<sup>th</sup> century activity. It is of note that only a single coin of the usually quite common 364-78 peak is listed from the coin list for French's excavations (Esmond-Cleary 1994) and an end to occupation in the third quarter of the 4<sup>th</sup> century seems quite possible.

The small quantities of Saxon pottery often come from unstratified contexts and this material might well represent a background scatter from the Saxon site at Haddon village (Rollo 1994, 90) rather than occupation on the site, in the absence of clearly Saxon features.

## FRENCH'S EXCAVATION

About a third of the site was excavated in 1989 (French 1994). This produced a quite large assemblage of pottery which was reported on by Rollo (1994).

These excavations suggested little evidence of later Iron Age activity but considerable pottery deposition in the 1st century AD (their phase 2) with 'a strong suggestion that the nature of the domestic activity changed or that it ceased altogether' at the end of their phase 2, based ceramically on the 'chuck-out' deposit from F9/13, probably of Flavian date. However, this might relate to pottery manufacture on the site, for which evidence was discovered. Indications being in the form of kiln bars and a possible kiln structure, F8, (incorrectly stated to be illustrated on fig 48). The kiln bars were oxidised and reduced and of fired clay, sometimes with the addition of grog, and the pottery though to be associated with the possible kiln was grog tempered.

The pottery report presented by Rollo discussed the F9/13 group and another from F39, the backfill of a quarry pit, which contained a good group of 4th century material. The remaining material from the other phases is tabulated with no further discussion. It is of note that the pottery tables indicate large quantities of intrusive material in a large number of features of phases 1, 2, 2/3 and 3!

The present excavations add a further collection of features containing late Iron Age-5th/7th century material. Table 1 shows the approximate breakdown of the fabric classes by count from the stratified features

Saxon	9	0.1
Class A (Dressel 20)	15	0.2
Class B (BB1)	9	0.1
Class C, shelly	2556	39.5
Class E (grog tempered)	243	3.8
Class F		
NVCC	898	13.9
OxCC	1	0.02
NV painted parchment	6	0.1
Class G	18	0.3
Class M		
NV mortaria	31	0.5
M-H mortaria	14	0.2
Other mortaria	4	0.1
Oxidised	88	1.4
Class R		
NV greyware	1151	17.8
other greyware	1069	16.5
Horningsea	2	0.03
Class S (samian)	39	0.6
Class W (whitewares)	320	4.9
Total	6473	

Table 1: Approximate fabric proportions by ware class from stratified features

The most significant feature from the present excavations was a fairly complete 'Belgic' kiln, with a set of shell tempered cigar-shaped kiln-bars and associated with shell-tempered wares which were clearly made in it. There is also a complete grog tempered jar from the stokehole, perhaps suggesting that these too were made in the kiln. Very few kilns for shell-tempered ware of this date are known, and it had been thought that these fabrics were mainly bonfire fired in a clamp.

The excavators, following French's view that the later occupation on the site was non-domestic, have suggested that pottery was brought to the site to act as hard-core and drainage material. Whilst from the evidence available this cannot be ruled out, it is fairly clear that this material, if it came to the site at all, did not come from the villa at Haddon. Had it done so much larger quantities of Nene Valley material might have been expected and an assemblage much more dominated by tablewares. Similarly it might have been expected that tile would have been used for a similar purpose, however, the quantity of tile from the site is negligible, no doubt this was brought to the site rather than used here for roofing, as small quantities of tile often are on basic level rural sites. However, given the questions as to the origin of the later material from the site, it is probably of limited value for further study except to provide dating evidence.

### **Firebars**

Around 119 fragments and complete kiln bars were recovered. All of cigar-shaped form, often with sockets in the tips. Many, including most of the complete examples associated with the kiln were in an oxidised shelly fabric, but there are large numbers of more fragmentary ones in oxidised and reduced clays some with organic inclusions and some with grog temper. There are also a few shelly complete kiln pedestals and many fired clay fragment including a number of fragments which may be kiln dome plates or over-plastering.

### **Summary of potential**

Questions posed in the research design to which the pottery can contribute significantly are:

*What is the nature and character of the Roman occupation on this site?*

The pottery has the potential to contribute much to our understanding of the nature and character of occupation on the site, particularly through interpretation of the levels of samian ware and amphorae, and through study of the levels of finewares and the functional composition of the assemblage in comparison with those from other sites. The nature of the form assemblage, along with amphora, samian etc can also demonstrate the considerable improbability of a military phase here.

*Is there any evidence of post-Roman occupation of the site?*

There is a small amount of evidence for Saxon activity on or near the site of 5th-7th century date. However this material comes from buried ploughsoil features such as furrows and upper ditch fills, and French's suggestion that the material originates from the upslope Saxon site seems credible. There seems to be very little suggestion of continuity from the Roman period, particularly as there are indications that occupation on the site may have ceased before the end of the 4th century.

*What is the state of preservation of deposits/artefacts from successive periods?*

The pottery is well preserved, particularly the large vessel fragments associated with the kiln, and a number of complete profile drawings can be obtained.

The national research framework for the study of Romano-British pottery identifies pottery from rural sites as being 'highly significant for our understanding of the Romano-British economy and 'Romanization' (Willis 1997, 15). These sites represent the living conditions of the vast majority of the Romano-British population and their consumption patterns and as such an adequate sample needs full examination and publication. Few of these sites have seen full publication in northern Cambridgeshire. The present material offers the potential to examine the evidence from one, to review material previously recovered from the site, and to compare it with others such as the recently excavated sites on Ermine Street (Hancocks *et al* 1998).

Given the small number of such sites examined in the region the material from this site is probably of regional importance.

The early kiln producing shell-tempered wares is of regional importance. Little is known of production sites for these wares in the early Roman period, and their association with a 'Belgic' type kiln is a little surprising. The Regional Research design for Roman ceramics from the East Midlands (Martin and Wallace 1997) states that 'A primary need for the East Midlands is the study of shell-tempered wares ... both those made in the region and those traded in from outside', and kiln sites are identified as a priority by the Society for the Promotion of Roman Studies (1985, 4.5.1.1) and by the Study Group for Roman Pottery (Willis 1997, 4.4.1). The site has a good collection of 1<sup>st</sup> and 2<sup>nd</sup> century material which both reflects production on the site and will provide valuable further information about the sequence of these products.

Although not identified in the research aims the pottery is the principal means of applying a chronological, as opposed to sequential, structure to the site narrative.

## **Specific Research Aims**

The pottery will provide a major contribution to the following research aims:

- 1) Determining the chronology of the site sequence
- 2) Examining exchange and supply to the site
- 3) Examining the nature and status of activity on the site
- 4) Presenting the evidence of the regionally important 'Belgic' kiln

## **Updated project design**

### **Publication synopsis**

The report will consider the chronological evidence for the site sequence, without which the structural sequence would remain just that, without any relationship to other sites. It will then examine the various classes of ceramic fabrics occurring on the site in the 1<sup>st</sup> and 2<sup>nd</sup> centuries, the fabrics within them and the evidence they provide for supply to the site and the changes in this through time. The regionally important evidence of the pottery kiln will then be presented, along with its kiln furniture and the other kiln furniture from the site, which suggests other kilns were also operating there. Selective thin-section and chemical analysis are recommended on some products clearly associated with the kiln in order to present a scientific characterisation of them which may be of use to other researchers. The functional composition of the coded assemblage and levels of finewares will be examined in order to provide the data to compare the site with others and characterise the nature of the pottery assemblage from the site and the nature and status of activity on the site. The information assembled will then be discussed further placing the site in its local setting.

### **Introduction**

**Chronology (I will want a copy of the coin list for this)**

**Amphorae**

**Black-Burnished wares**

**Shell-tempered wares**

**Grog tempered wares**

**Colour-coated wares**

**Gritted wares**

**Mortaria**

**Oxidised wares**

**Greywares**

Samian  
Whitewares  
Kiln structure  
Kiln furniture  
Kiln products  
Discussion of kiln  
Thin section analysis  
Functional analysis and finewares  
Discussion of site status and supply to the site

### **Methods**

The stratified ceramics from 1<sup>st</sup> and 2<sup>nd</sup> century groups will be recorded by sherd numbers, weight, RE and minimum numbers of rims for form and fabric. The material will generally be illustrated most economically by a fabric and form type series, but material associated with the kiln should be presented as a group.

The quantification of form data is one of the most important recommendations of the Fulford report (Fulford and Huddleston 1991, sections 4.3.3 and 5.4.1) and this will be tabulated for each fabric by phase.

### **Storage and curation**

All the stratified material should be retained and requires no particular conservation measures other than stable storage conditions. Discard of the unstratified material is not recommended, but if it is to be undertaken the mortaria, amphorae, samian, stamped vessels and those bearing graffiti, and diagnostic Nene Valley colour-coated ware sherds should all be retained, as should vessels which are good examples of their type and a record should be kept of all material discarded.

## **IV HUMAN REMAINS**

**Corinne Duhig MA MIFA**

### **Skeleton**

Methods used are those of Cho et al. (1996) and Ubelaker (1989). Approximately 5% of the skeleton is present. The material from context 561 fills less than half a skull box representing less than 5% of a complete skeleton. It is badly shattered and most of the breaks are old and soil stained, although there are a few new breaks. The bone is in strong condition with largely intact cortices.

After reconstruction the bones were found to be in the midshaft of a right femur up to the gluteal tuberosity 22cm in length, the short midshaft tubes of the left and right tibia, few shaft fragments of a fibula, part of a right talus and two portions of an unsided navicular. Two metacarpal or metatarsal shaft fragments are present and it is supposed that they are metatarsal because of their size and because all other human bone is from the lower limbs, but this is not possible to determine unequivocally.

Bone size and robusticity of muscle insertions suggests that the individual was adult. I

## **V MOLLUSCAN AND OTHER ENVIRONMENTAL REMAINS**

**Val Fryer,**

### **Introduction**

Excavations by the Cambridgeshire County Council Field Archaeology Unit were undertaken in the summer of 1999 at Haddon Lodge, Haddon, prior to the development of a motorway service area. Previous excavations (French et al 1994 and Upex 1993) had located a Romano-British farmstead, a Roman villa and a Saxon settlement in close proximity to this site. Evaluation work prior to the 1999 excavation demonstrated that activity within the development area was probably associated with the farmstead.

Samples were taken from the fills of pits, ditches and an oven. Twelve were submitted for an initial appraisal to assess their potential for future study.

## **Methods**

The samples were bulk floated by the excavator, collecting the flots in a 500 micron mesh sieve. The dried flots, or sub-samples thereof, were rapidly scanned under a binocular microscope at magnifications of up to x 16 and the presence of plant macrofossils and other materials was noted and tabulated. At this stage no attempt has been made to express the density of materials present. All tabulated plant remains were preserved by charring. Modern contaminants including fibrous roots, seeds/fruits and arthropods were present but not common.

## **Plant macrofossils**

Cereal grains/chaff and seeds/fruits of common segetal weeds were present at varying densities in all but samples 1 and 14. Preservation was moderate to good although some cereal grains and larger grass seeds were puffed and distorted, probably as a result of high temperatures during combustion. Barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains were recovered and spelt (*T. spelta*) chaff was common throughout. Segetal weed species included stinking mayweed (*Anthemis cotula*), brome (*Bromus* sp.), indeterminate grasses, dock (*Rumex* sp.) and vetch/vetchling (*Vicia/Lathyrus* sp.). Seeds/fruits of wetland taxa including sedge (*Carex* sp.) and spike-rush (*Eleocharis* sp.) were also noted and a single fragment of hazel (*Corylus avellana*) nutshell was recorded from sample 6. Other plant macrofossils included fragments of charcoal and charred root, rhizome or stem and indeterminate seeds.

## **Other materials**

The fragments of black porous 'cokey' material and the siliceous globules are probably the residues of the combustion of organic materials, including cereals and straw, at very high temperatures. Possible domestic/dietary refuse included small bone fragments, fish bones and pieces of avian eggshell.

## **Molluscs**

Although specific sieving for molluscan remains was not undertaken, shells were noted in samples 1, 2, 10, 11 13 and 14. Species from all four of Evans (1972) ecological groups were present and fresh water taxa were also noted.

## **Recommendations for further work**

On the basis of this appraisal, it would appear that assessment of the following samples (highlighted in red on the table) may provide information about on-site domestic, industrial and/or agricultural activities and may complement existing data from earlier excavations: -



- 2 354 Pit fill
- 4 487 Pit fill
- 5 475 Pit fill
- 11 615 ?oven fill

All appear to contain cereal processing and/or domestic debris and sample 11 may be an example of processing debris used in a secondary context as fuel for an industrial process

The following samples (highlighted in blue on the table) contain similar assemblages to those already noted, although the density of material is generally lower. As these may provide additional data about on-site activities, rapid scan assessment is recommended:-

- 3 488 Pit fill
- 7 525 Pit fill
- 12 637 Pit fill
- 13 627 Pit fill

Sample No.	1	2	3	4	5	6	7	10	11	12	13	14
Context No.	197	354	488	487	475	512	525	482	615	637	627	756
<b>Cereals</b>												
Cereal indet. (grains)		x	x	x	x		x	x	x	x	x	
(detached embryos)					x				x			
<i>Hordeum</i> sp. (grains)			xcf									
(rachis node)								x				
<i>Triticum</i> sp. (grains)		x	xcf	x	x		x	x	x	x	x	
(glume bases)					x			x			x	
(rachis internodes)									x			
(spikelet bases)					x		x		x	x	x	
<i>T. spelta</i> L. (glume bases)		x	x	x	x	x	x		x	x	x	
(spikelet fork)				x								
<b>Herbs</b>												
<i>Anthemis cotula</i> L.				x	x							x
Asteraceae indet.						x						
<i>Bromus</i> sp.		x	x	x	x			x	x			xcf
Chenopodiaceae indet.									x	x		
<i>Fallopia convolvulus</i> (L.)A.Love				x								
<i>Galium</i> sp.						xcf						
Small Poaceae indet.				x	x		x		x	x		
Large Poaceae indet.		x	x	x	x	x				x	x	
<i>Polygonum aviculare</i> L.												x
Rubiaceae indet.					x							
<i>Rumex</i> sp.			x	x				x	x	x		
<i>Stellaria</i> sp.									x			
<i>Tripleurospermum inodorum</i> (L.)Schultz-Bip								x				
<i>Vicia/Lathyrus</i> sp.				x					x	x		
<b>Wetland plants</b>												
<i>Carex</i> sp.								xcf	x	x		
<i>Eleocharis</i> sp.												x
<b>Trees/shrubs</b>												
<i>Corylus avellana</i> L.						xcf						
<b>Other plant macrofossils</b>												
Charcoal <2mm	x			x	x	x	x	x	x	x	x	x
Charcoal >2mm	x								x	x		
Charred root/rhizome/stem		x			x			x	x	x		
Indet. seeds								x	x		x	
<b>Other material</b>												
Black porous 'cokey' material		x				x				x	x	
Bone					x		x			x		
Fish bone					x					x		
Eggshell					x					x		
Siliceous globules		x										
Small mammal/amphibian bone					x				x	x		
<b>Molluscs</b>												
<b>Woodland/shade loving species</b>												
<i>Aegopinella</i> sp.								xcf				
<i>Carychium</i> sp.								x				
<i>Discus rotundatus</i>								x				
<i>Vitrea</i> sp.								x				
<b>Open country species</b>												
<i>Pupilla muscorum</i>								x				
<i>Vallonia</i> sp.									x			x
<i>V. costata</i>								x				x
<i>V. excentrica</i>								x				
<i>V. pulchella</i>		x						x				xcf
<b>Catholic species</b>												
<i>Cochlicopa</i> sp.								x				
<i>Trichia hispida</i> group								x			x	
<b>Marsh/fresh water slum species</b>												
<i>Lymnaea</i> sp.								xcf				
<i>Vertigo</i> sp.	x							x				
<b>Fresh water species</b>												
<i>Anisus leucostoma</i>								xcf				x
<i>Segmentina</i> sp.	x											
<b>Volume of flot (litres)</b>	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1
<b>% flot scanned</b>	50%	100%	100%	50%	100%	100%	100%	100%	25%	100%	100%	100%

## VI ASSESSMENT OF THE SMALL FINDS

Nina Crummy

### Introduction

Only metal objects were examined. They break down by metal thus:

<i>copper alloy</i>	30
<i>iron</i>	12
<i>lead</i>	4
<i>Total</i>	<i>36</i>

No bone objects were recorded in the site register. Registered non-metallic objects were listed as ceramic or stone but not further identified.

Bulk metal objects were also recovered, mostly nails and mostly from the spoil heap.

The majority of the datable small finds belong to the Roman period, though there are several medieval items.

### The assemblage

Identifications were done using X-radiographs of one view only and are therefore in some cases only tentative.

The small finds can be divided by function, and, where datable by form, to broad periods:

#### Iron Age

pin	1
-----	---

#### Roman

##### *personal ornament*

brooches	7
?armlet	1

##### *tools*

cleaver	1
---------	---

##### *textile manufacture*

spindlewhorl	1
shears	1
chain	2

<i>structural fittings</i>	
T-clamps	2
nails	1
<i>fastenings</i>	
studs/fittings	3
furniture nails	2
lead plug	1
<i>weapons</i>	
spearhead	1
<u>Medieval</u>	
<i>dress accessories</i>	
buckles	1
strap-fittings	3
<u>Undiagnostic</u>	
copper-alloy	14
iron	5
lead	2

The identification of SF 123 as an Iron Age pin in the site register cannot be confirmed from the X-radiograph but is assumed to be correct.

The Roman assemblage consists of a wide range of objects from jewellery to structural fittings. Toilet instruments, recreational and household objects are absent (though a very small number were recovered from earlier excavations), suggesting that either occupation on the site was of low economic status or that it related to a specific use other than the general domestic.

The high number of brooches compared to other items is indicative of early activity on the site. In the south-east brooch numbers decline markedly after *c* AD 80, and this decline is matched here.

The seven brooches include three examples of types that make their appearance in the Late Iron Age. The Spade-footed brooch (SF 52) is a pre-conquest continental form rare in Britain, with only a few known from Colchester and Verulamium. The British-made Colchester brooches (SF 24, 102) are also pre-conquest in origin, but the form is long-lived, surviving until the Neronian period. The two-piece Colchester derivative brooch (SF 35) is probably of the earlier B form, dated *c* AD 50-70, though the details of the bow are not visible on the X-ray and it may instead be of BB form, dated *c* AD 65-80.

The most remarkable small find is SF 96, a ritual deposit of a pair of iron shears with fragments of iron chain. The shears, at about 250 mm long, are of the size used for sheep-shearing or cutting cloth (cloth-cropping shears are about 1 m long,

domestic or personal grooming shears are less than 150 mm long). The chain fragments may be directly associated with the use of the shears in some way (to restrain a sheep, to store the shears), but they may simply have been hoarded for recycling.

The only other tool recovered was a butcher's cleaver of the commonest size and type used in Roman Britain. Cleavers of this kind are depicted on altars as being used in sacrifices, but more direct evidence would be needed before it could be assumed that this particular example was used in ritual, rather than general, butchery.

### **Recommendations**

A short small finds report should be prepared concentrating on the following items:

1) The shears and chain fragments

These should be set in the context of other ritual and hoard deposits of ironwork. Smith's deposits in the Roman period vary markedly in size and in the range of items included. However, this particular deposit is most reminiscent of Iron Age ritual deposits of trade iron and weapons, some of which may have been made to mark the abandonment of a settlement.

2) The brooches

The assemblage should be compared with the brooches found during earlier excavations, and with those from other farmstead sites in the area (*eg* Maxey).

3) Other finds

A limited number of the other finds, including some of the medieval pieces, should be catalogued.

4) Other issues

The unusual absence of common bone items, such as hairpins, spoons or game counters, does not appear to have been caused by acidic soil conditions as bone food refuse was recovered. It is, however, matched by an absence of bone objects among those found in previous excavations at Haddon, and possible reasons for this absence should be briefly explored.

*Summary catalogue*

SF no	Metal	Identification	Date
1	iron	ring	-
3	iron	socketed spear head	Roman/Anglo-Saxon
10	copper alloy	hooked tag	late medieval
13	copper alloy	?	-
14	copper alloy	strap-loop	medieval
17	copper alloy	strap-end	medieval
24	copper alloy	Colchester brooch	Tiberius-Nero
28	iron	socketed cleaver, Manning Type 2	Roman
32	copper alloy	folded sheet	-
33	copper alloy	slag	-
35	copper alloy	Colchester ?B derivative brooch	50-70
38	copper alloy	Trumpet brooch	late 1st to early 2nd century
41	copper alloy	ring fragment	-
42	lead	dribble	-
44	copper alloy	buckle	medieval
47	iron	strip	-
48	copper alloy	furniture nail	Roman
52	copper alloy	Spade-footed brooch	pre-conquest-c 50
53	copper alloy	strip	-
56	lead	spindlewhorl	
60	copper alloy	bent strip	-
64	iron	T-clamp with anchor-shaped head	Roman
68	copper alloy	wire fitting	-
72	lead	pot repair	-
73	iron	fragment	-
77	copper alloy	furniture nail	Roman
84	iron	nail shaft fragment	-
88	copper alloy	brooch, ?T-shaped	probably 2nd century
89	copper alloy	?	-
90	lead	scrap	-
91	iron	T-clamp with anchor-shaped head	Roman
92	iron	strip	-
93	iron	chain, probably the same chain as SF 96	-
94	copper-alloy	?	-
96	iron	shears & chain	Roman
97	iron	?	-
100	copper alloy	stud	-
101	copper alloy	buckle?	-
102	copper alloy	small Colchester brooch	Tiberius-Nero
106	copper alloy	slag	-
108	copper alloy	enamelled fitting	Roman
109	copper alloy	?Dolphin brooch	Claudian
111	copper alloy	wire fragments	-
121	copper alloy	pin/needle shaft	-
123	copper alloy	pin	?Bronze Age
128	copper alloy	pin/needle shaft	-

129	copper alloy	stud	-
141	copper alloy	decorated strip, ?armlet	?early Roman

*Bulk iron*

<b>Context</b>	<b>Identification</b>
163	1 nail
236	2 fragments sheet
250	?nail shaft fragment
284	2 nail shaft fragments
288	1 nail
293	2 hobnails
301	1 nail
318	1 nail
319	1 nail, 1 small fragment sheet
350	1 nail
462	3 nail shaft fragments
463	1 nail shaft fragment
619	1 nail shaft fragment
633	4 fragments ?nail shafts
640	1 nail
652	1 nail shaft fragment, 1 ?sheet fragment
710	2 ?hobnails
712	1 nail
726	1 nail shaft fragment
748	5 nails, 5 nail shaft fragments
789	2 nails
882	1 nail
892	1 nail
897	1 nail, 15 hobnails
spoil heap	1 nail head, 3 nail shaft fragments
spoil heap	horseshoe fragment - post-medieval or modern
Tr 4	2 nail shaft fragments

## **VII ASSESSMENT OF THE COINS**

**Nina Crummy**

### **Introduction**

Only the preliminary on-site identification and date are given below. While these would be refined, or changed to some extent, on examination by a numismatic specialist, they nevertheless, when allocated to the coin periods defined by Reece, present a useful broad indication of activity on the site.

The coin profile conforms to that for rural sites, with the majority of coins dating from the late 3rd to mid 4th centuries. The coin lists from the earlier excavations presents a similar picture. The paucity of coins of the later 4th century from both excavations suggests that occupation effectively ceased by *c* AD 360.

### **Recommendations**

The coins should be examined by a numismatic specialist to enable the maximum amount of potential information to be made available. Amalgamation of this information with that from the earlier excavations will 1) provide a much clearer picture of the coin profile to be established and 2) enable the site to be set in the context of Reece's study of coin loss-types in Britain during the Roman period.

It is recommended that this work be done by Peter Guest of Capital Archaeology (Bristol).

SF	Identification	Date	Period
2	barbarous radiate	270-90	11
4	barbarous radiate	270-90	11
5	barbarous radiate	270-90	11
6	Constans	333-50	13b
7	Constantine II	317-40	13a
11	Constantine I	307-37	13a
12	House of Constantine (rev Constantinopolis)	330-45	13b
15	Constans	333-50	13b
16	-	4th-century	-
18	-	4th-century	-
20	-	4th-century	-
21	House of Constantine	330-45	13b
22	-	4th-century	-
23	-	4th-century	-
25	-	4th-century	-
29	Probus	276-82	11
30	Carausius	287-93	11
31	House of Constantine	330-45	13b
34	-	4th-century	-
36	House of Constantine	330-45	13b
37	-	4th-century	-
39	barbarous radiate	270-90	11
40	barbarous radiate	270-90	11
43	House of Constantine	330-45	13b
45	-	4th-century	-
46	House of Constantine	330-45	13b
50	-	late 2nd century	7b
51	House of Constantine	330-45	13b
55	House of Constantine	330-45	13b
57	-	4th-century	-
58	barbarous radiate	270-90	11
59	Gallienus	253-68	10
62	barbarous radiate	270-90	11
63	barbarous radiate	270-90	11
65	-	4th-century	-
66	barbarous radiate	270-90	11
67	barbarous radiate	270-90	11
69	House of Constantine (rev Fel Temp Reparatio)	330-45	13b
70	-	4th-century	-
71	Helena	337-41	13b
74	-	4th-century	-
75	barbarous radiate	270-90	11
76	barbarous radiate	270-90	11
78	House of Constantine (rev Gloria Exercitus 2 standards)	330-45	13b
79	barbarous radiate	270-90	11
80	barbarous radiate	270-90	11

81	barbarous radiate	270-90	11
82	Carausius	287-93	11
83	barbarous radiate	270-90	11
86	Constantine I (rev Constantinopolis)	330-45	13b
87	House of Constantine	330-45	13b
95	Constantius I	305-6	12
98	barbarous radiate	270-90	11
103	-	4th-century	-
104	-	4th-century	-
105	-	4th-century	-
107	Constantine I (commemorative)	337-45	13b
110	-	4th-century	-
112	Maximianus	286-305	12
113	-	4th-century	-
114	barbarous radiate	270-90	11
115	House of Constantine	330-45	13b
127	-	4th-century	-
130	barbarous radiate	270-90	11
131	-	3rd century	-
132	Constantine I	307-37	13a
133	barbarous radiate	270-90	11
134	barbarous radiate	270-90	11
136	-	3rd-century	-
137	Tetricus II	270-3	11
138	-	4th-century	-
139	House of Constantine	330-45	13b
140	?Helena	337-41	13b
142	-	4th-century	-
143	-	4th-century	-
144	barbarous radiate	270-90	11
145	House of Constantine	330-45	13b
146	fragment	3rd-4th century	-
147	barbarous radiate	270-90	11
148	-	4th-century	-

Table 1 Provisional Coin Identification

## **VIII PHOSPHATE ANALYSIS (preliminary assessment)**

**Paul Middleton**

### **Method**

The samples are treated with an acid digestion method, using a hydrochloric acid bath to extract phosphorus into solution. Since phosphorus is colourless, the solution is reacted with a reagent, using an adaptation of Murphy and Riley's standard molybdenum blue method and the resultant blue colour intensity is measured by use of a spectrophotometer. The more intense the blue colour, the higher the concentration of phosphorus that is present. This is quantified by reference to a standard curve.

### **Aims**

Samples were collected to cast light on the distribution of phosphates in relation to the site as a whole and specifically to attempt to answer questions about the potential use of two areas for which the artefact evidence was sparse and inconclusive.

Phosphate is present in all living cells, is taken in by all animals during feeding and is used to make bone, nucleic acids etc., any surplus being excreted. Phosphate is deposited when animals, including humans, defecate, urinate or are buried. Thus, human activity and associated animal activity has a tendency to enhance phosphate levels in the areas inhabited. If certain areas are favoured, such as stock yards, droveways and so on, then these areas receive large increments of phosphate. Soil components bind phosphate strongly, so it tends to stay where it was deposited for long periods.

Preliminary results from the Haddon material indicate strong variability in the concentrations of phosphate present. This indicates that specific activities have indeed enhanced local levels of phosphates and this is particularly evident in one building. The patterning of these concentrations will contribute to a fuller understanding of the potential role of structures and enclosures within the site.





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