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Archaeological Field Unit

Camel Road, Littleport Post-Excavation Assessment & Updated Project Design

Stephen Macaulay

June 1999

Cambridgeshire County Council

Report No. PXA 11

Commissioned by Construct Reason Ltd.

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Report No. PXA 11

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CAMEL ROAD, LITTLEPORT POST-EXCAVATION ASSESSMENT AND UPDATED PROJECT DESIGN

by Stephen Macaulay 21/6/99

1 INTRODUCTION

The excavation was completed in two distinct stages beginning in October 1997 and concluding in March 1998, following an assessment in May 1997 (Roberts 1997). The site was on Camel Road, close to the centre of the town of Littleport, Cambridgeshire (TL 5660 8715). The land is currently being redeveloped for housing by the owners agent Construct Reason Ltd. The development area was at time of investigation a pasture field, with a building towards the east, fronting onto Camel road. The excavation was commissioned by Construct Reason Ltd, and was undertaken by the Archaeological Field Unit (AFU) of Cambridgeshire County Council.

The site lies on the interface between the Kimmeridge Clay highland at Littleport and the fens. It overlooks the central channel of the 'Old Croft', the principal channel of the Ouse river system during later prehistory, a watercourse which remained active well into Postmedieval times.

Although Prehistoric sites are located in the vicinity, including flint scatters (e.g. Shippea Hill, Clark et al 1935), 'settlements' on the highland (Fenland Project, Littleport parish Sites 17 & 18) and on the low sandy knolls of the Pre-Flandrian (Sites 33, 21, 26), no pre-Roman activity was encountered on the site at the depth at which excavation ceased.

During the Roman period, the Old Croft was thought to carry enough brackish water to allow salt production. A great number of saltern sites on the 'roddon' banks to the north of Littleport are thought to be Roman Saltern sites (Hall 1996, 25). The evaluation (Roberts 1997) did not recover any Iron Age material, finds indicated primary domestic activities of Roman date, with some fragments of briquetage, potentially suggesting salt-production.

The site was not occupied after the Roman period. It is likely that the Saxon settlement nucleated in the vicinity of the parish church and that the early hithe is located close to 'Silt Road' and 'The Hythe'. The excavation has determined that there is possibly Roman settlement in these areas.

A summary of the excavation results are presented in this report, in addition a post-excavation assessment is included and an updated project design which details the further work to be undertaken. This assessment broadly follows the guidelines set out by English Heritage (1991) for MAP2.

2 ORIGINAL AIMS & OBJECTIVES

The original research framework (Robinson 1997) for the excavation at Camel Road, Littleport, was based on the results of the Assessment Report (Roberts 1997) and from the design brief set out by the County Archaeology Office (CAO) by Simon Kaner (1997). The second stage of works was based upon a progress report (Robinson 1997) and a supplementary specification (Macaulay 1998)

The original investigation was designed to recover a sample record of Romano-British activity. In addition the investigation conforms to the following nationally defined objectives:

'The investigation of wetland archaeology, and of wetlands immediate environs' (English Heritage 1991, 44).

'The characterisation of the nature of Romano-British society during the late Roman period (English Heritage 1997, 44).

'Investigation of coastal industry' (English Heritage 1997, 54).

And following regional research objectives:

'Investigation of land surfaces beneath sedimentary sequences' (Murphy in Glazebrook 1997).

Examination of Roman coastal agricultural regimes, and of character and regional diversity of rural life generally (Going in Glazebrook 1997).

Examination of rural diet and economy. Shortages of assemblages of Roman fish and bird remains have been particularly identified (Going & Murphy in Glazebrook 1997).

Finally, localised site specific objectives were:

'Is the site representative only of domestic activity or is it associated with industrial processes (such as salt making)?'

'What is the full period span of Roman activity on the site?'

'What was the character of the local environment and how did this influence the diet and economy of the settlement?'

'How unstable was this roddon-based location, and what if any steps were taken to counteract periodic flooding?'

'Are there any indications of exotic contact which relate to the site's proximity to what is assumed to be a major access to the region from the coast (and therefore continent)?'

The need for a 2nd Stage Excavation, and supplementary specification arose from a number of reasons. The inclement weather in November 1997 and discovery of extensive and stratified Roman deposits, in excess of those predicted from the evaluation and located in areas not previously possible to be investigated, necessitated the need to re-evaluate and restructure the aims of the excavation. In addition change in AFU personnel resulted in both a new Project Officer and Project Manager for the site.

The research aims and objectives, along with their relevance to the local/regional and national strategies did not alter within the aims of the supplementary specification. The supplementary specification was aimed to pinpoint specific tasks to be undertaken with relevant method statements to create achievable objectives within the lifetime of the excavation. To this end the entire site was not investigated, moreover target areas were completed. Eight points were raised for discussion with the CAO, who negotiated with the developer to prioritise the Points and include within the supplementary specification, these related to archaeology discovered during Stage 1 (Robinson 1997).

- Pt 1 Investigate a Romano-British building (NW sector), given **low priority** as the area will be fenced and protected by the developer during the development.
- Pt 2/3 Complete the investigation of earlier channels and their relationship to the site sequence (high priority).
- Pt 4/5 Investigate early RB horizon and complete sampling of latest features across the site (high priority).

- Pt 6/8 Relationship between the boundary/enclosure ditch to the northern activity area (high priority).
- Pt 7 Investigate area of pitting and dumping in sw corner of site was given a **low priority** as the adequate investigation of this are would have consumed too much time and resources, with much of the area inaccessible due to the presence of existing buildings.

3 EXCAVATION METHODS

The methodology for excavation was, in part, determined by the CAO (Kaner 1997). The brief outlined an open area excavation (equivalent to c30m x c30m) over the proposed location of building footprints, gardens and access road.

The initial methodology (Robinson 1997) carried out a sampling strategy of five 2m x 2m test pits to retrieve artefacts. It was hoped that this would provide data on the final (truncated) phases of the site. The open areas excavated was situated to the east of evaluation trenches 3 and 4, and where therefore within a 'new' and untested part of the site. The investigation formed two sub-square areas (approx. 25m x 25m and 12m x 12m), forming a connected large and small squares. The depth of topsoil varied from 0.20m-0.35m across the site, increasing in depth towards the south. A 360° tracked excavator was used for topsoil stripping, with additional excavation work undertaken by a mini-excavator in Stage 1 and a wheeled JCB in Stage 2.

After machine stripping the area was cleaned by hand with a base plan compiled. Bad weather hampered the progress of works, which was further complicated by the presence of complex archaeology, which would demand stratigraphical rather than simple open area excavation. In many areas 'natural' was not being encountered, rather archaeology was located on top of deep deposits, c 600mm above alluvial roddon silts. Site flooding created its own problems, both for speed of excavation and feature/archaeology interpretation.

Stage 2 required a re-cleaning of the site, which had remained flooded from November through until February. Surface water needed to be pumped off the site throughout the duration of the excavation, with all deeper features (c0.50 below modern ground surface) accumulating water. Stage 2 investigations adopted a specific and target related stratigraphical excavation technique. This also included the mechanical removal of the latest boundary ditches. This in turn provided a vertical section of the sites development sequence in certain areas.

4 SUMMARY OF RESULTS

The only period represented at Camel Road, Littleport is of Romano-British date.

Initially the site was interpreted to be the remains of a Roman Saltern, parallels of which are known to have been located in the immediate vicinity (to the north along the banks of the old Croft). However subsequent investigations were unable to prove this hypothesis. A number of channels/ditches which suggested a salt producing function, through their morphology association with water holding tanks, did not contain any significant quantities of briquetage, which are to be expected from a Saltern site. Any interpretation of the function of these channels lies within a wider understanding of Roman Fenland settlement, however, their function must have related to water management for industrial/agricultural processes rather than drainage/catchwater.

The Roman remains at Camel Road are thought to be part of a much larger Roman settlement of some importance. Whether it can be called a 'Villa Estate' is questionable, however the building materials and artefacts indicate high status occupation and the area of investigation appears to be that of an activity zone close to these buildings. The primary function of the site changes over time and includes rubbish disposal, industrial activity, occupation, (stock?) enclosures, drainage and re-cutting of the same features over time, where occupation is sustained. Fills from the disuse of features has produced large quantities of high status pottery, such as Samian, including much that is decorated, with general pottery forms and vessels indicating consumption rather than transportation or storage. Many thumb impressioned wine flagons were recovered, plates and beakers, as well as glass vessel fragments. Adding more weight to the interpretation of high status occupation is that the building material recovered includes significant quantities of imported building stone, rather than the local material, painted wall plaster fragments, roof, floor and box flue tile and stone. In addition daub from the round house appears to have been 'white washed. The presence of box flue tile would suggest that a bathhouse was nearby (Pottery Report - Evans 1998)

The significance of these remains must be interpreted in the broader context of known occupation of the Roman Fenland occupation. Preliminary spot dating of the pottery indicated occupation from the mid-2nd century until the hiatus of the later 4th century. This covers the accepted span of the main period of British (and Fenland) Romanisation following the Hadranic/Antonine period (AD 117-138, 138-161), through the first main fenland exploitation and eventual disuse. The end of the site coincides with the theory of rising water levels in the fens in the late 3rd and early 4th centuries AD. Initial investigations of the remains at Camel Road suggest that changing function of the site's activity may be correlated to some/all of these events.

5 PHASING DESCRIPTION

A general synopsis of the site's Roman occupation divides into approximately 7 phases, based on the stratigraphic matrix. Dating from pottery analysis and spot dating has not added to the sequence, however it also does not contradict the basic site matrix. A general overview of the archaeology initially indicated that most/all features visible on the ground surface were cut through cultural deposits, with no natural layers evident. The nature of the site, located on/near to a roddon, in an area of periodic and seasonal flooding/silting, would increase the likelihood of complex deposit accumulation. This combined with intensive Roman occupation has created the site. Of interest the pottery dating ties the site to beginning in the Hadrianic-Antonine (early-mid 2nd century) through to late 3rd/early 4th century abandonment.

The accumulation of silts on the site is characterised by a distinctive yellow-brown silt horizon. The base geology of the site, where natural was observed (undisturbed deposits), is an (orangy) yellow-brown clay/silt, overlying a peat layer to the north of the site, which in turn overlies a sandy layer. Phase 1 (mid-2nd century AD); a couple of linears running nwse, are cut into this natural silt layer and are filled by a distinctive grey silt deposit, heavily leeched and broken down. The initial Stage 1 excavation (December 1997) interpreted this as another potential silt layer spreading across the northern limit of the site, beyond the later enclosure ditches (Phase 7), however this proved to be the fill of a ditch whose function the later enclosure ditch in Phase 7 potentially repeats. Phase 2 (mid-2nd century AD); provides evidence for systematic use/occupation of the site, and may represent the disuse of buildings and/or a demolition layer. Features are broad shallow scoops to the east of the site and a large square pit in the northwest. These features contain burnt refuse deposits with charcoal, organic material, burnt daub/clay as well as burnt midden fills. Two large 'tanks' running north-south (towards the river) contain these deposits, however they also show that they held standing water. One replaces the other through time, however the infilling sequence is identical in both cases, with re-cutting the cause of the replacement. Large quantities of artefacts were recovered from all deposits in these features. All the features of

Phases 2 and 3 are sealed /filled in by an alluvial episode which lays down a yellow-brown silt horizon (3015), containing cultural material, and it is through this deposit that all subsequent archaeology is cut. Whether this will be seen as a major period of site abandonment is yet to be determined. Phase 3 (2nd-3rd century AD); described separately this ditch is likely to belong to other activity, although it cuts the charcoal horizon from Phase 2. A north-south ditch 10m+ long, represents a common feature discovered from the site, the large enclosure ditch (Phase 7) cuts this 'tank', as does the 'enclosure' ditch of Phase 4. The function probably relates to some 'process', rather than drainage etc. However whether this is retting or nursery beds is unsure. What is definite is that this type of feature is common on the site. Phase 4 (late 2nd-mid 3rd century AD); a well preserved segmented ring-ditch gully (10m diameter) of a round house and internal stakeholes. There are also potential external postholes related to this feature. Importantly the round house (Phase 4) lies to the north of the enclosure ditch (Phase 5), although this ditch post-dates the round house construction, the ditch (running nw-se) is broadly contemporary, both features respecting their positioning. The disuse of the round house (and burning down) reveals that the burnt wall/daub layer spills into the upper fills of this enclosure ditch. The ring-ditch fill contained excellent survival of impression daub (possibly white-washed), charcoal and artefacts. Finally the nw/se ditch in Phase 5 is deliberately infilled with the bank soil, after the round house is abandoned. To the south another ditch running north-south may be related to the other ditch, this ditch would then form an 'L'-shape which is copied by the 'L'shape enclosure ditch in Phase 7. Phases 6-7 (3rd-4th century AD); appears to indicate that on-site occupation has ceased and a return to an industrial use is in place. A series of ne-sw channels/ditches cut through the site. These are vertically sided, flat bottomed ditches/gullies, which terminate to the north of the later enclosure ditch (Phase 7), and are potentially contemporary with it. These features may represent a period where the focus of occupation has shifted to the south (and east?) with the larger ditches of the 'L'-shaped enclosure (Phase 7) acting as a drain, however the ne-sw ditches appear to run into the river and their purpose may have been to collect and trap water. What was of note was the high percentage of animal bones (specifically cattle) which these later fills contained, potentially suggesting that the land was now too wet for effective occupation and that water meadow/wet pasture was the main economic focus. The ditches of Phase 6 may represent seasonal industrial activity.

6 ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL

Key to abbreviations in Task Lists

Cons = Conservator, EC = External Consultant, ILL = Illustrator, PM = Project Manager, PO = Project Officer

6.1 STRATIGRAPHIC AND STRUCTURAL DATA by Stephen Macaulay

6.1.1 Ouantity of materials and records

The number of records relating to the excavated features are as follows:

282 context records, of which 77 describe deposits, 197 describe cuts and 8 refer to general cleaning and unstratified;

A digital context record of the site;

81 hand drawn plans as scale 1:20;

A digital base plan of the site, hard copies of which may be reproduced at any required scale;

43 hand drawn sections at scale 1:10

5 hand drawn sections at 1:20

510 photographs

24 sample records

Unexcavated features were recorded both on the digital base plans and the hand drawn base plans.

6.1.2 Provenance and dating

All deposits but the topsoil and natural geology can be attributed to the Romano-British period, specifically from the Hadrianic-Antonine (2nd century AD) through to the beginning of the 4th century AD. These dates are based on pottery spot dating, stratigraphic and spatial associations. Within this date span a minimum of seven distinct stratigraphic phases exist (see section 5 above).

6.1.3 Range and variety

Feature types are mostly cut features containing at least one deposit, however layers and cultural deposits are an important aspect of the site, where few features are cut into 'natural' rather there is a significant build up of deposits into which later features are cut. There is no evidence of upstanding building remains. Site alluviation, degradation and feature truncation/re-cutting has resulted in no banks surviving.

Cut features included ditches, both larger V-shaped boundary/enclosure ditches and narrow slot channels probably with drainage as a primary function. The ditches may also have a broader industrial use. Larger 'tanks' or broad ditches were also recorded. Their function for water storage or such like is unproven, although use as a retting tank was possible. Some pitting was recorded, but there were few in number and conspicuous by their absence. The overall waterlogging of the area may have prevented the widespread use of pits for any function. Areas of dumping, as opposed to pitting per. see. were recorded, although these have functions relating to industrial waste, as opposed to functional rubbish pitting. Layers recorded on the site include areas of burnt rubbish material and potential floors. These layers are important as they form the deposits into/through which most/all features are cut. These layers contain cultural material dumped from the nearby settlement and reflect changing functions. Structural remains on the site are limited with only a few instances of isolated postholes or stakeholes, the only significant concentration was directly associated with a ring-ditch gully of a round house. Later beamslots are also recorded, but there is only a short period of actual occupation on site, while the beamslots are few and do not demonstrate the presence of another significant structure.

6.1.4 Condition

The archaeological deposits were horizontally truncated across much of the site. There was some evidence of buried surfaces and 'midden' type deposits, including 'make up' deposits from earlier periods of occupation. However the truncation and alluviation caused by regular episodes of flooding both removed and added to these deposits. The site had not suffered from any modern or indeed post-Roman truncation. Although only a maximum of 0.35m of topsoil lay above the Roman deposits, no evidence of recent disturbance was evident. Residual pottery and artefacts recovered from the topsoil horizon suggest that the area has been largely undisturbed for a considerable period of time.

The greatest effect on the condition of deposits and stratigraphical data is caused by the archaeology itself. Feature re-cutting and truncation of earlier deposits is the characteristic of the site. Many features survive only partially, while others are only visible in sections. In part this is due to the nature of the sites excavation, which by necessity was a keyhole approach and thus not all features were visible or recorded fully in plan.

Although the site was excavated in extremely wet and waterlogged conditions, the deposits were not waterlogged, as such the preservation of palaeoenvironmental deposits was poor.

The nature of the local topography and water table creates significant annual fluctuations in the water level, resulting in leeching and flooding episodes. The effect this process has on the deposits and features was to blur some interfaces, however the effect was not serious enough to prevent feature/deposit recognition.

6.1.5 Primary sources/documentation

The records for the excavated deposits are complete for Stage 2 and have been checked for internal consistency. Records from Stage 1 have been similarly checked, however a number of contexts and records were not completed due to the alteration in excavation strategy between Stages 1 and 2. All context records have been computerised to aid in cross-referencing and record consistency, using the 'Dataease' software package for PC's. Written records have been completed on archival quality paper using light fast waterproof ink and have been fully indexed. Drawn records in pencil have been checked, referenced and levels checked. All digital and computerised records have been archived and copies are held at separate locations in a fire proof safe. The site matrix has been produced on-site and checked/cross-referenced during the assessment stage. The matrix has also been checked with pottery spet dating results.

All primary records are retained the AFU offices, Fulbourn.

6.1.6 Means of collecting data (method of assessment)

The primary paper records have been checked in conjunction with the site matrices and the assessments of artefactual and ecofactual materials to generate the information for this assessment. General finds information for individual contexts has been collated using the computerised records database. Some preliminary grouping of contexts, deposits and features have been undertaken, as well as a site phasing sequence developed.

6.1.7 Selection of data for further analysis

All records dating to the Roman remains excavated in Stage 2 will be subject to further analysis. Some Stage 1 records are duplicated by Stage 2 and therefore included, however some Stage 1 records only relate to areas partially excavated and therefore full analysis will not be possible.

6.1.8 Statement of potential

The contextual data is the main component of data and is sufficient to form the foundation of the site narrative. The sites major significance is based upon the recording of the stratified sequence of Roman occupation, within a limited area and rare for the fens, with short span occupation at rural sites the norm.

The elucidation of an industrial function for ditches and gullies will be important. The interpretation of the sites functional changes, as demonstrated by the different stratigraphical records of ditches, structures, enclosures etc. is of importance. In addition the overall understanding of the sites development will be enhanced with regards to its place in a wider Roman settlement, to which the site at Camel Road, is but a part.

Preliminary pottery dating has indicated that there does not exist a tight dating sequence from artefactual material alone, indeed the sites *phasing* is more accurately determined by the stratigraphical records. It is into the matrix that all artefactual material will be fitted.

6.1.9 Analysis methods and quantity statement

The site data will subjected to rigorous analysis. All contexts dating to the Roman period will be grouped and phased based on information from pottery, feature types, spatial distribution and matrices. This information will be distributed to relevant specialists to allow accurate analysis of the material categories on the basis of the contextual data. The full site report will be based on a combination of the contextual data and the reports compiled by individual specialists, it is therefore envisaged that the final report will not be written until all specialist analysis is completed. Reference to, and comparison with other sites of similar period and type will be made wherever possible. The site will also be considered in on-going research studies by the AFU into the Roman occupation of the Cambridgeshire fen-edge. Useful comparisons can be made with the on-going Fenland Project, other fen sites (e.g. Little Thetford), excavations around the Car Dyke canal and transportation into the fens north of Cambridge City.

6.1.10 Potential of methods to meet aims and objectives

By subjecting the contextual data to rigorous analysis and incorporating all the specialist data into the site record it should be possible to produce a database and report which can be used for useful comparison with other excavations of the Romano-British period and the fens in general. This is especially important given the current lack of data for stratified Roman sites within the fens and in particular sites of high status. The site is potentially linked to a 'Villa' estate and there is evidence to suggest a nearby bathhouse. If so this represents a category of Roman site that has hitherto been unknown in this area. Villa type estates are not thought to be a category of Roman settlement in the fens. The site will be phased and dated based on the extensive site matrix which exists for the site. Work will be carried out on the spatial distribution and comparisons of feature types, however given the only partial excavation of the site, the depth of deposits and *sequence* will be a more important data set. Of particular importance will be to determine the cause (and effect) of the shifts in the function of the site and the relationship of palaeoenvironmental factors on site development.

6.2 POTTERY by Jeremy Evans & Margaret Ward

6.2.1 Provenance and quantity

The material from Camel Road, Littleport consists of 1,362 sherds weighing 44,174g. It derives from features of Romano-British date, excavated during the evaluation and excavation (Stages 1 & 2).

6.2.2 Dating

The Littleport assemblage contains only sherds of Romano-British date, derived form both undisturbed features and residual material contained within the topsoil. The accumulation of deposits on the site has resulted in much inter-cutting of features with residual pottery contained within features.

The date range of the material spans from the Hadrianic-Antonine period (mid-2nd century) through to the early 4th century AD. The 2nd century date for initial occupation is in line with the accepted date for the Romanisation of the fens.

6.2.3 Fabrics and forms

The pottery is in a good condition and much consists of large sherds. The principal fabrics are Horningsea greywares (NVGW), Nene Valley colour-coats (NVCC), Samian, Black Burnished wares (BB 1+2), Dressel 20 amphorae and shell-tempered wares with small elements of Nene Valley greywares, oxidised wares, whitewares, Nar Valley ware and Dalesware. The assemblage, while not being unique is varied and diverse.

The form types of the material are of importance. Large numbers of thumb impressioned flagons, beaker, plates and food preparation material. Although storage and transportation vessels were present the assemblage on the site points to consumption rather than ancillary functions.

All material is Romano-British wheel made, with no evidence for local handmade material within the assemblage.

6.2.3 Primary sources and documentation

The primary comparative sources are very poor and work on the Roman pottery of the fens (Cambridgeshire in particular) is a national research priority. Little quantified information, except for Stonea (Potter 1997), exists and even less synthesis on trade patterns within the Fenland. Recently excavated material from Milton (Reynolds 1994) and Waterbeach (Guttmann & Robinson 1996, Macaulay & Reynolds 1993, Macaulay forthcoming) will provide comparative data for trade into the fens. Comparisons of this assemblage with that at Stonea may well help to define supply corridors within the Fenland.

6.2.4 Data collection

Each context has the Roman sherds separated into fabric types. The number of sherds recorded, along with spot dating and form type.

6.2.5 Discussion and potential

The collection is of regional interest for a number of reasons. Quantified data from rural (or indeed urban) sites in the region are sadly lacking and this site will help address that. Further all the indications from the site would seem to suggest it was something more than a basic rural site. The presence of fairly high Samian levels, as well as high levels of other finewares and the presence of a relatively large quantity of Dressel 20 amphorae for a rural site all indicate this. Whilst from the 3rd century high fineware levels on sites in the Nene Valley region may be found even on rural sites because of the supply factors. The ceramic indications at this stage would seem suggest that this was a villa site, despite the alleged lack of such sites in the Fens. The presence of box flue tiles amongst the tile would also suggest this and must imply a nearby bathhouse.

Fabric supply to the site may well help to elucidate more about the marketing of Horningsea wares, about which there is currently little quantified information. Understanding the trade patterns of the Fenland will be enhanced, especially as the site will contribute to other studies around the Cambridge fen edge, including the Car Dyke Roman canal. The presence of North Lincolnshire Dalesware on the site is of intrinsic interest, indicating some material returning from the east coast trade with the Humber.

6.2.6 Recommendations

The pottery assemblage from the Roman settlement at Camel Road, Littleport is the first excavation on a site of high status in the area. The accepted pattern of local Romano-British rural sites is that of small farmsteads and industrial sites (including salterns), based on low status settlement. The site at Camel Road breaks this mould, with the discovery that the site is part of a more substantial high status or 'Villa' site.

It is recommended that the Roman assemblage should be fully analysed and reported on, to include full description of selected sherds and a comparison of material with other assemblages in the region. However, within the scope of the investigation at Camel Road, the resources available are insufficient to allow a full report to be undertaken. Consultations with English Heritage have recommended that a specific pottery research project be undertaken for the Cambridgeshire fenland/fen edge based on large quantified assemblages collected at the Car Dyke at Waterbeach 1993-1997 and the Littleport assemblage. This project will be submitted in 1999.

In summary, the present level of investigation into the pottery from Camel Road, Littleport, which includes spot dating from all contexts and a full Samian catalogue will be sufficient for the site specific reporting. The incorporation with other larger assemblages will ultimately provide the basis for the Roman fen ceramic traditions.

6.2.7 Task list

Illustration of selected sherds

2 days (ILL)

				main to the second	data (Green N.)		
Full Report	ita ha	included	in	Fnalich	Haritage	Recearch	Project
run neuur	LIU UC	muluucu	111	TITITIDII.	HULLIAR	1/02/04/04	LIOUCUL

Code stratified pottery (inc. Samian)		25 days (EC)	- £3,250
Scan unstratified potte	ery	2 days (EC)	- £260
Input coding		3 days (EC)	- £390
Samian discussion	(M Ward)		- £600
Mortarium stamp	(KF Hartley)		,
£65			
Analysis and report w	riting	15 days (EC)	-£1,950
Total (excluding VAT	r)		£6,515

6.3 THE FAUNAL REMAINS by Ian L. Baxter

6.3.1 Quantity

A total of 343 fragments of animal bone was recovered from hand excavated deposits. A small amount of bone was recovered from the heavy residues of sieved environmental bulk samples. Due to the relatively small size of the assemblage a full report was commissioned on the faunal remains, rather than an assessment.

The total weight of the assemblage is 16,034g, this figure does not include material recovered from samples. A total of 273 fragments or 80% of the total could be identified to some extent.

6.3.2 Provenance

All the faunal remains were selected for analysis, derived from a total of 41 contexts. They reflect the full range of feature types identified during the excavation, however the

demographic distribution bias is particularly relevant (as is the phasing data). Faunal remains recovered from ditches dominate the collection (N=25) or 61% of the assemblage. Importantly this also represents the later phases of occupation as well.. Unstratified (N=4), layers (N=6), structural features inc. postholes, stakeholes and a ring-ditch gully (N=4) and pits (N=2). Full details of the faunal material recovered from each context, phase and feature type is given in the archive report.

6.3.3 Range and variety

Of the 343 fragments within the report, 273 fragments were recognisable or 80% of the total. the unidentified material mostly consists of undiagnostic small bone chips.

Cattle dominate the faunal assemblage, both in terms of weight and number of fragments, accounting for 45% of identified fragments or 67% if combined with Large Mammal (L.M.). Sheep/Goat form the next group with 16% or 25% when combined with Medium Mammal (M.M.). All the other species together comprise the remaining 8% with pig accounting for just fewer than 3%.

Cattle

As noted above, cattle remains account for up to 67% of the total assemblage, more than two and a half times as many fragments as the next most numerous taxon. A total of 10 horn cores were recovered from various deposits at the site, representing 8% of cattle fragments identified to species. These came from shorthorn beasts with downward curving horns. Where sex could be established the horn cores belonged to 2 bulls, 3 cows and 3 oxen (castrates). All were mature animals aged from 7 to over 10 years, based on the state of fusion of the frontal-parietal suture and the surface morphology of the horn cores (Armitage 1982). Full data on the cattle horn cores is presented in Table 2 in the Appendix of the Archive Report. Very few loose teeth were recovered, and from a total of 43 teeth, most of which are associated with mandibles or maxillae, a bias towards adult and old adult beasts can be discerned in the available assemblage (Archive Report Appendix Table 3.). This evidence supports that provided by the horn cores and the mandibles where the mandible wear stage (Grant 1982) can be calculated, four out of five mandibles have an MWS of 39 or over. Only one bone was complete enough to calculate the withers height, an unstratified Mc III+IV from (2000). This came from a beast approximately 118.3cm at the shoulder based on the multiplication factors of Fock (1966). Many of the cattle bones bear clear marks of butchery. Of the meat bearing elements the most common is the scapula, many of the mandibles have cut and chop marks caused during separation from the skull and removal of the tongue, and the pubic fragments have been hacked about. A frontal fragment from (9999) has an external opening of the posterior frontal sinus that may be pathological. Situated below and to the left of the frontal eminence it is irregular in shape with a maximum diameter of 13.5mm and penetrates through to the sinus. A second more circular hole with a diameter of 9.0mm has apparently been drilled into the solid bone of the posterior frontal above and to the right of the parietal. This is open only on the outside and does not communicate with the sinus.

Sheep/Goat

The remains of sheep/goat comprise up to 25% of the total assemblage. No fragments that could be attributed to goat were recognised, but two fragments of sheep were identified: a parietal fragment from (3032) and a distal Mt.III+IV from (3128). All the sheep/goat remains are highly fragmented and many long bones bear butchery and canid gnaw marks. No bones were complete enough to calculate the size of the sheep. Only 25 teeth of sheep/goat were recovered from the site, but the available evidence suggests two kill-off peaks represented by animals less than 2 years of age and older animals of over 2 years (Archive Report Appendix Table 3).

Pig

The most common species after cattle and sheep/goat, pig is represented by fewer than 3% of the total assemblage. Where age at death can be ascertained these are young animals. A maxilla fragment from (3029) has multiple cut/chop marks on the outer surface above M1-2. No bones were complete enough to estimate the size of the animals.

Horse

The remains of horse comprise only 1% of the total. An Mc.III from (3128) came from an animal 135.6cm or 13.5 hands high at the shoulder based on the multiplication factors of Kiesewalter (von den Driesch and Boessneck 1974). A femur from (3096) has the proximal epiphyses unfused and the distal epiphysis fused/fusing, this seems to be in reverse of the expected order but suggests that the animal would have been about 3 years old at time of death (Amorosi 1989; Sisson and Grossman 1953). There are what appear to be knife-tip marks on the anterior and posterior upper surfaces of the bone.

Dog

As with horse domestic dog remains comprise 1% of the total. All derived from (3029), the dog bones comprise a complete radius and ulna from a single individual, a proximal ulna fragment from a second smaller animal, and an isolated Mt.II. The radius and ulna came from a dog approximately 35cm high at the shoulder using the multiplication factors of Harcourt (1974). These bones are fused together by extensive extoses, possibly resulting from an old midshaft break of the radius. The second ulna fragment has been gnawed.

Deer

A left frontal and antler fragment of roe deer was found in (2049). The medial surface of the anterior tine tip has been artificially smoothed by a knife, possibly to remove the velvet, and there are knife marks on the lateral surface. The posterior branch has been broken off. A large basal antler fragment of red deer, still attached to part of the left frontal and parietal, was found in (3014). This came from a mature adult stag of at least 10 points. The brow and bez tines had been sawn through. If the velvet was artificially removed from the roe antler, the animal must have been killed before May by which time it is usually rubbed off. In any case the animal must have been killed before November/December when the antlers are cast. The red deer must have been killed between September and March/April, the times when the antlers are full-grown and when they are cast. The evidence for antler working is considered in more detail in below.

Birds

The only bird remains came from (0000) and (3020). A distal radius fragment and a distal tibiotarsus fragment from (0000) belong to wild species and could be identified given time. The radius shaft fragment from (3020) belongs to a goose but it is not possible to ascertain if it is from a wild or domestic species.

Fish

A large fragment of fish bone was recovered from (2115). It would need to be identified by a specialist.

Evidence for the working of antler, bone and horn at Camel Road, Littleport (LITCR98)

Antler

The red deer cranial fragment from (3014) has been cut from the skull, probably sawn off. Most of the brow tine has been sawn off and the bez tine has been sawn through and snapped off. The tines were sawn from the front, i.e. the inside. A round hole has been driven or drilled 21.0mm through the thickness of the frontal bone. This hole has a diameter of 6.4mm and was possibly for suspension of the antler during transport and storage. There is evidence of scorching on the surface of the antler. According to MacGregor (1985), antler is such a

hard material that it is necessary to heat it before it can be worked. The roe deer antler from (2049) also displays some evidence of human modification in that the remaining tine has been smoothed by a knife and there are other knife marks on the lateral, i.e. outer, surface.

Bone

A fragment of flat bone, possibly from a cattle scapula, found in (3032), has half an inscribed disc with a central hole on its surface. As preserved, this disc is 21.0mm in diameter with a central hole 3.4mm in diameter. The scribing line is quite thick, up to 3.0mm. It could represent a blank for a button or gaming counter. From (3128) came a fragment of sheep/goat tibia shaft 113.8mm long which has been artificially modified by delicate knife cuts and the use of a rasp. The bone appears to have been polished. The distal end is preserved as discarded and has been squared off. The sides of the bone have also been squared to some extent. The proximal end is broken. At least some of this damage is recent and probably occurred during excavation. It is possible that this artefact was a whistle or flute blank.

Horn

The horn cores of cattle account for 8% of total cattle fragments identified to species. All are still attached to frontal-parietal fragments and none have knife or saw marks suggestive of horn removal. One frontal-parietal fragment from (2000) has chop marks in the area of the, missing, horn core base. There are methods of removing horn from the cornus that leave no trace, however, and it is unlikely that such a valuable natural resource would have been wasted. Mature beasts with large horns of good quality would have been of most use to the horner and it is animals of this sort whose horn cores are represented in the deposits at the site.

6.3.4 Condition

The preservation of bone from the site was good. The majority of the bones had good clean surfaces. Although the waterlogged nature of the site degraded some of the surfaces of bones. Where surface modification (in the form of slight exfoliation and concretions) has been recorded it has not affected identification or effaced marks made by humans or animals. Chops, gnawing and butchery marks have been recorded. Much of the assemblage has been chewed by dogs.

6.3.5 Method of Assessment/Report

A full detailed report has been compiled on what is a small assemblage of faunal remains from Camel Road, Littleport. All recognisable fragments have been analysed recording species, skeletal elements, butchery, pathology and taphonomy. A more detailed investigation of worked antler, bone and horn was undertaken. Cattle horn cores have been measured for the purposes of ageing and sexing (based on Armitage 1982, Armitage & Clutton-Brock 1976, von den Driesch 1976). Estimates of age have been attempted using the established methods of tooth eruption and mandible wear (based on Grant 1982) and the epiphyseal fusion of the post-cranial skeleton (Silver 1969).

6.3.6 Selection of data for further analysis

A full report has already been compiled and no further research will be undertaken.

6.3.7 Statement of potential

The small size of the assemblage was in part off-set by the importance of some data for site interpretation. A full report was undertaken since conducting an assessment would not be

worthwhile. The importance of the assemblage is based upon the distribution of the recovered material. Although small, the faunal assemblage, and in particular the cattle component, are present in the later deposits and in ditches. This information will add to the understanding of the sites functional changes, particularly towards the final phases of occupation. The faunal report will provide data for spatial patterning across the site and will be considered in conjunction with the types and morphology of features.

The quantification and analysis data of the domestic species will be considered when attempting to understand the sites economy in terms of animal husbandry and function in general. When considered together with the stratigraphic data it may be possible to distinguish the relative importance of different domesticates over time.

6.4 DAUB AND FIRED CLAY by Simon Bray

6.4.1 Quantity

The assemblage consists of 18,957g of fired clay. It derives from a total of 61 contexts, although 59.6% comes from 4 contexts, with the remainder being only small quantities from individual features. Initial examination of every context containing daub/fired clay took place but those of a very fragmented nature were excluded, leaving 85.3% of the sample for detailed analysis.

6.4.2 Provenance

Of the 61 contexts containing fired clay/daub, features represented were; ditches (N=36), pits (N=6), unstratified (N=3), layers (N=6) and ring-ditch (N=5), beam slots (N=2), postholes/stakeholes (N=3). A total of 29 contexts contained daub fragments with a suitable structure for further analysis. material was collected from a variety of feature type; ditches (N=14), pits (N=4), hearths (N=2), layers (N=2), beam slot (N=1), stakehole (N=1) and ring-ditch (N=5). Of the assemblage 59.6% came from 4 contexts; 2 layers, a ditch fill and pit. Material from 8 % of the assemblage (6 contexts = 1,520g) has been interpreted as being derived from hearth or kiln type pits/features.

6.4.3 Condition

The overall condition of the daub fragments was good, with sizes ranging from 10x8x3 cm cohesive pieces to very small fragments. Most of the material was hard and compact allowing most impressions to be clear and measurements taken. Plaster had been applied to some of the daub surfaces and this also survived in good condition.

6.4.4 Fabrics and forms

Within the contexts examined the fragments were divided into broadly two main fabric types with sub-variants resulting from uncontrolled firing.

Tyne A

The majority of this material consisted of a light pink fabric, fairly evenly fired to a hard consistency. Within the daub matrix were frequent small stone inclusions and voids caused by the incineration of organic material during firing. Sub-variants within this typology were based on differences within the colour of the fabric.

Variant A1; hard consistency, almost orange colour with few voids of inclusions.

Variant A2; hard consistency, mottled orange/grey colour throughout matrix indicating firing in a reduced atmosphere.

Type B

Small quantities of a light compact yellow clay fabric were recovered and these included frequent inclusions and voids. A single large fragment was found within the fill of the enclosure ditch (3011) which is suggestive of a kiln lining.

Wattle Impressions

The daub was measured and analysed to interpret the wattle structure of the structures. Overall the larger vertical posts were found to be in excess of 50mm, common with other excavated sites. The average diameter of the wattle impressions was between 10mm-50mm, compared to 15mm-20mm for other sites. It has been suggested that the material for wattling elsewhere was collected from a managed woodland. The variations at Camel road may reflect the inhospitable fenland environment and a shortage of suitable managed woodland, resulting in any available scrub being utilised as wattle.

Plaster Work

Seventeen contexts representing 60% of the complete assemblage were found to contain daub fragments covered with traces of a thin white plaster. The plaster was white, possibly lime based, 0.20mm thick and adhered to the flat face. Contexts 2068 (dumping layer) and 3048 (ditch fill) contained 20% of the assemblage.

The plastered daub was derived from at least one round house, the daub within ditch 3048 was derived from the wall collapse and spilling into the partially filled ditch. The presence of plaster work on daub may indicate internal rendering of the roundhouse. Parallels for which were recorded by Caesar who noted the Gaul's 'painted' houses, maybe in an attempt to brighten up an otherwise drab exterior. Conversely, it maybe an attempt to follow the Roman fashion of plastering concrete, birch timber and daub to resemble marble or 'good' masonry.

Kiln/Hearths

The daub matrix from these contexts is either a light yellow, hard crumbly texture, or a dark red orange soft fabric.

6.4.5 Method of assessment/report

The fired clay or daub was analysed by dividing the material in fabrics based on visual analysis incorporating colour, consistency, inclusions and voids. Additionally, diagnostic features including wattle impressions, dimensions, surface description and the presence of plaster work were also recorded.

6.4.6 Discussion and potential

Four contexts (2068, 3009, 3048 and 3097) contained the majority of the daub pieces. The majority of these fabrics were assigned to Type A.

Four contexts, 2059, 2061, 2064 and 3040, were recorded as fills of the ring-ditch (of a round house) and contained 946g of Fabric Type A. In adjacent features a further 3580g of Type A daub was found, in particular within the fill of a contemporary ditch (3050), which ran next to the ring-ditch and contained over 2kg of daub. A neighbouring pit (3109) contained 1495g of daub and a burning layer/surface (3009) adjacent to the ring-ditch contained 4567g of Type A daub. The material from the roundhouse was also the plastered daub.

The report on the fired clay and daub will not be extended. The recorded data will provide useful evidence for the social trends of the settlement and local woodland management industry. However further analysis is not warranted and will not provide useful information.

6.5 TILE by Stephen Macaulay

Only 2,993g of tile was recovered from the site. The assemblage derives from 9 contexts and a spread of feature types; Ditches (N=3), Layers (N=3), Pit (N=1), Un-strat (N=3). 1,077g was collected from spoil heaps and topsoil, representing 36% of the total. This is a very small assemblage considering the period and propensity for such material. However, the nature of the material is of interest.

The usual fabric of hard well fired tiles is present, with a red or red-brown colour. Likely sources would be from sites in Norfolk. Fragments of a more local production have been encountered, a dark grey fabric, poorly fired with shell inclusions.

Tegulae (roof tile), Pedalias (floor tile) and Tubulus (box flue tile) were all present within the small assemblage. This is of significance as it suggests the presence somewhere in the vicinity of a higher status building. The level of occupation on the site does not suggest buildings of such import to warrant tiling. It is suggested that a bathhouse or villa buildings are close to the site.

Although the assemblage is particularly small, it contains extremely useful information pertaining to the surrounding area. Why the material was brought to the site is unknown, although rubbish is most likely. Green (in Gurney 1960) does not consider that tiles were used for salt production. It is not recommended that more work be carried out on the tile assemblage.

6.6 OTHER FINDS

A number of miscellaneous finds were recovered from the site, these are listed below.

Stone/Masonry	14,528g
Wood	19g
Shell	2,032g
Glass	6g
Metallic	_
- Fe	600g
- Cu	71g
- Pb/Ag	151g
- Slag	235g

6.6.1 Stone/Masonry

Stone fragments and coal were recovered from the site. A total of 14,528g was excavated, deriving from 17 contexts/features. All the stone was imported, since no local sources exist. The origins of the coal are unknown. The material was recovered from a range of features; Ditches (N=9), Ring-Ditch (N=1), Pits (N=2), Layer (N=4) and Un-strat (N=1). The material was not found in-situ, rather the assemblage represented waste/rubbish. Of note was that 41% of the stone fragments were recovered from features relating to Phase 4, during the sites occupation phase. Much of this material was burnt.

The stone material is likely to have been undressed wall foundations, possibly originally ballast from barges. Artefacts recovered include; a quernstone (1,078g) and a whetstone. Source identification for the quernstone is recommended.

The presence of coal may indicate the use of this material for firing. Source identification should be undertaken.

6.6.2 Wood

The preservation of organic material at Littleport was very poor and only 19g of wood (carbonised) was recovered. The nature of the sites formation and subsequent seasonal fluctuations of the water table have not created the conditions under which organic preservation is possible. The only wood fragments were discovered within a single burnt layer. The condition of the wood was poor, mostly carbonised.

6.6.3 Shell

Oyster and mussel shells were recovered from 28 contexts, totalling 2,032g. Species identification and provenance are required. Feature types include; Stake-holes (N=2), Layer (N=7), Ditches (N=14), Pit (N=1), Ring-ditch (N=3), Un-strat (N=1). The single largest component of the assemblage was recovered from un-stratified deposits (437g), although occupation layers (124g) and ring-ditch fill (399g) suggest that the material is associated with occupation phases.

6.6.4 Glass

Only 6g of glass was recovered from the site, from two contexts.

6.6.5 Metallic Finds with contributions from Chris Montague.

Cu Alloy

A total of 71g of Cu Alloy material was recovered from the site. This material derived entirely from un-stratified deposits, recovered from metal detecting over the spoil heaps. A number of artefacts were encountered; Roman coins (N=7), a copper needle bodkin and a knee brooch clasp fitting. The coins are of low value, mostly Dupondius. The dating is consistent with the mid-2nd century date for the site's beginning. Coin dating ranges from Hadrian (119-138 AD) and Antoninus Pious (138-161 AD) to Commodus (184 AD).

There is not any need to carry out further investigation into this material.

Fe

A total of 600g of Fe or Iron finds were recovered from the site. This material derives from 10 contexts. The assemblage is mostly nails, although some industrial residue was present. Artefacts also include a possible key and an iron pin with copper attachments. 364g or 60% of the assemblage (again mostly nails) derived from features (stakeholes, ring-ditch, layers) directly associated with the occupation on the site (Phase 4) when a round house was constructed. Further research is not recommended.

Pb

A total of 151g of lead (Pb) material was recovered. 138g or 91% derived from metal detected finds from spoil tips. The remaining 13g is a fragment of possible lead pipe recovered from the round house ring-ditch. Other lead artefacts include a weight. No further research is recommended.

Slag

A total of 253g of smithing slag was recovered from the site. The material is derived entirely from a burnt layer deposit (3009/3019). The material and small size of pieces suggest that the sample be regarded as residual, rather than any evidence of nearby smithing.

6.7 PALAEOENVIRONMENTAL (FORAMINIFERAL ANALYSIS) by Dr M Godwin

Four samples were taken for analysis during the excavation. The purpose of these was to determine the levels of salt in selected deposits through the above technique.

The analysis concluded that there was not high levels of salinity present within the samples and that this could not be used to support a saltern function for the features. The results indicated seasonal fluctuations between freshwater and brackish conditions in inundated channels. One sample [28] did contain briquetage and charcoal, from a broad channel or tank, potentially interpreted as a saltern or similar feature.

6.8 ENVIRONMENTAL (PLANT MACROFOSSIL ANALYSIS) by A.J. Clapham

6.8.1 Quantity, Provenance and dating

A total of sixteen samples were analysed for charred plant remains, all dating from the Roman occupation. In general, the remains were well preserved enough to allow identification to species in most cases. Five samples were of ditch fills (sample numbers, 11, 19, 20, 23, and 32), four from hearth contexts (sample numbers, 10, 24, 25 and 26, the final three samples were from the same hearth, 2060), three from layers (samples numbers 13, and two from sample 31 - one of which was treated as a waterlogged sample), two from pit fills (sample numbers 22 and 34) and one from a ring ditch (sample number 33). Plant remains in most of the samples were few, but four samples were considerably richer than the others these were sample 10 from hearth fill 2024, sample 13 from layer 2025, sample 19 from ditch fill 2063 and sample 26 from hearth fill 2061.

A total of seventy charred plant taxa were identified from the samples, fifteen were of crops or crop remains, the remainder belonging to non-cultivated species.

Due to the small size of the assemblage a full report on the material has been compiled.

6.8.3 Method of assessment

The samples were processed using the standard Archaeological Field Unit, Cambridgeshire County Council flotation procedures and were sorted using a low-powered stereomicroscope (x 6.3-40 magnification). The critical plant taxa were identified using the modern plant reference collection housed in the Pitt-Rivers Laboratory, Department of Archaeology, University of Cambridge.

All nomenclature follows that of Stace, 1997.

6.8.4 Range and variety (RESULTS)

The crops

A total of fifteen crops and crop related taxa were recovered from the samples. The majority of which were of the glume wheats, especially spelt wheat (Triticum spelta), this was represented by finds of both grains, glume bases and rachis fragments, although the latter two taxa were not present in large numbers. Other cereal crops recorded from the site include bread wheat (Triticum aestivum), emmer wheat, (Triticum dicoccum), hulled barley (Hordeum vulgare), rye (Secale cereale) (although this crop is considered to be a weed of the crop rather than a crop in its own right), flax/linseed (Linum usitatissimum) and pea (Pisum sativum). The commonest find was that of indeterminate fragments of cereal grains which occurred in most of the samples.

It is not possible, due to the lack of chaff fragments, to determine whether the crops were grown in the vicinity. As the site is interpreted as a high status site, it is possible that the crops were grown locally, but processed off-site, therefore leading to a paucity of cereal chaff remains. The presence of oats (*Avena* sp.), in the samples is considered as a crop weed in the same fashion as rye. It is not possible to determine the importance of the other crops such as flax/linseed and peas as they were present as single finds.

The majority of the spelt grain was found in sample 13 (layer 2025) which appeared to have sprouted, a large number of sprouts were also recovered in the sample, this suggests that the grain was burnt either because it was spoilt or it may represent the remains of malting as described by Hillman at Catsgore (Hillman, 1982).

The non-cultivated plant species

A total of fifty-five taxa were identified from the samples. Several habitat types were identified in the samples, including arable, wetland and heathland.

Arable

The majority of the non-cultivated plant species were indicative of an arable or disturbed environment, these include, buttercup (Ranunculus subgenus Ranunculus), poppy (Papaver sp.), small nettle (Urtica urens), fig-leaved goosefoot (Chenopodium ficifolium), many-seeded goosefoot, (Chenopodium polyspermum), fathen (Chenopodium album), orache (Atriplex sp.), chickweed (Stellaria media), pearlwort (Sagina sp.), pale persicaria (Persicaria lapathifolia), knotgrass (Polygonum aviculare), black bindweed (Fallopia convolvulus), shepherd's purse (Capsella bursa-pastoris), parsley-piert (Aphanes arvensis), medick (Medicago sp.), clover (Trifolium sp.), corn gromwell (Lithospermum arvense), field woundwort (Stachys arvensis), greater plantain (Plantago major), cleavers (Galium aparine) and stinking mayweed (Anthemis cotula).

These species may have arrived with the crops, but as other evidence indicates that there is little evidence for crops being processed on site and therefore the taxa may have grown in the trampled areas of the site.

The presence of stinking mayweed indicates that heavy clay soils were cultivated.

Wetland

The other major habitat represented in the samples were indicators of wetlands or areas with a high water-table. Some species prefer open water. The wetland species include; greater spearwort (Ranunculus flammula), ragged robin (Lychnis flos-cuculi), marsh mellow, (Althea officinalis), water dropwort (Oenanthe sp.), hemlock (Conium maculatum), fool's watercress (Apium nodiflorum), spike-rush (Eleocharis sp.), common club-rush (Schoenoplectus lacustris), grey club-rush (Schoenoplectus tabernaemontani), saw-sedge (Cladium mariscus), sedges (Carex sp.) and branched burr-reed (Sparganium erectum).

These species are often found on the edge of open water, such as a river or even a ditch. In some cases the combination of species identified could represent the presence of areas which are subjected to low levels of salinity. These species include marsh mallow, the club-rushes and hemlock. These would have been growing at the edge of the salt marsh. The presence of low levels of salinity are supported by the ostracod and foraminifera evidence (Godwin, 1998).

The other species such as fool's watercress, water dropwort and branched burr-reed would have been growing in the water which may have been standing in the ditches, with the clubrushes, spike-rush, greater spearwort, hemlock and ragged robin would have been growing in the shallow water at the edge or on the banks of the ditches.

The presence of large number of culm nodes in sample 31 and 34 (contexts, 3009 and 3098) may represent the remains of straw which were burnt as fuel, but it more likely that they are the remains of reed (*Phragmites australis*) stems, which could have been burnt in situ (in order to clear the ditch edges) or harvested and used as a fuel and then dumped. A large number of hemlock seeds were recovered from sample 26 (context 2061) which is one of three samples taken from the hearth 2060 (samples 24 and 25, contexts 2064 and 2059 respectively). These hemlock fruits may have been used as fuel, from the same source as reed stems. The other samples 24 and 25 contained very few charred plant remains.

A fenland component is indicated by the presence of the saw-sedge, which would be expected as the site is at the fenland edge. This species can be used as a roofing material.

Other habitats

Other habitats represented by the plant remains include scrub, with the presence of elder (Sambucus nigra) and burdock (Arctium sp.). Grassland is indicated by the presence of fairy flax (Linum catharticum), ribwort plantain (Plantago lanceolata), grasses (Poaceae). The presence of fairy flax indicates the presence of a base rich substrate.

A heathland component is indicated by the find of hare's-tail cottongrass (*Eriophorum vaginatum*), which may have been present in the more acid parts of the fen.

6.8.5 Conclusions

The major crops present at the site were spelt wheat, along with bread wheat, emmer wheat and barley. The presence of rye and oats in this context are considered to be arable weeds. Due to the lack of cereal chaff it is not possible to determine if the crops were grown locally, although being a high status site, it is possible that they were grown locally but processed away from the site. The finds of sprouted spelt wheat grains in layer 2025 may indicate the remains of a malting process perhaps for beer. The presence of the large number of culm nodes of grasses is not taken to represent the remains of straw but as the remnants of reeds which were either burnt in situ or dumped after being used as a fuel.

Due to the lack of evidence for crop processing, the presence of the arable weed species may indicate either remains of the crop processing debris brought onto site and then dumped after being used as fuel or they may have grown in the disturbed (trampled areas) of the site.

The main habitat type represented in the samples is that of wetland, including open water, where species such as the club-rushes and spike-rushes were growing in the shallow water at the edge of the ditches, fen conditions were indicated by the presence of saw-sedge and more acidic areas by the remains of hare's-tail cottongrass. Several of the species including marsh mallow may indicate the presence of low-level salinity and this is supported by the ostracod and foraminifera evidence. Scrub and grassy areas were also indicated by the taxa in the samples.

Overall, the samples indicate that the environment at the time of occupation was very wet, with a possibility of saltmarsh being present. Crops were grown in the area on the heavier soils but were most likely processed off-site. No features indicated a storage function.

6.8.6 Statement of potential and further analysis

The analysis of the charred plant remains will significantly contribute to the economic reconstruction of the site. The research objectives at both a regional and localised site level sought to investigate the local environmental. agricultural and economic variable affecting the site and its wider role or functions (and whether these have changed through time). This would thus also include an analysis of both spatial and temporal variation. The results of the environmental analysis/report will address each of these objectives.

Although the general quality and survival of plant macrofossils is poor, the burnt deposits have produced important data. In addition the nature of the remains will provide useful information on the site function and hierarchy towards other nearby settlements.

The material recovered from these samples should provide useful data to support the interpretation of specific features and the site as a whole, from other sources of evidence. In addition, the assemblage should be usefully compared with those from other appropriate sites within the region (Murphy in Glazebrook 1997).

The charred plant remains have provided good data for palaeoenvironmental reconstruction on the site and the above report represents a full analysis of the sampled material. Therefore no further analysis will be undertaken.

7 SUMMARY OF POTENTIAL

7.1 SITE CONTEXT AND SIGNIFICANCE

English Heritage's updated survey of archaeological endeavour and agenda for future work (English Heritage 1997) draws attention to the importance of archaeological remains dating both to the Late Iron Age and Romano-British periods (300 BC-AD 200) and the nature of the change in the late Romano-British society (200-700 AD) in the 3rd and 4th centuries (English Heritage 1997, 44). Of particular significance is the impact of the Roman colonisation of the fens (regional variation) and the on-going research into the complexity of The occupation at Camel Road, Littleport, which begins in the Hadrianic/Antonine (early-mid 2nd century AD), relates to the first significant Roman impact in the Cambridgeshire fens, and will contribute to such issues. The site does not persist into the later 4th century, rather ending by the late 3rd/early 4th century, a fact which has important implications, not least of which is the deterioration of the environmental conditions. English Heritage research priorities (English Heritage 1997) state importance of understanding sites, with reference to the environmentally driven reasons for continuity and change. Cambridgeshire's local priorities for Roman pottery directly feed into the national agenda's for assemblages derived from well understood and stratified sites. At present no quantified pottery assemblages exist for Roman Cambridgeshire, outside of Peterborough and Godmanchester.

Camel Road, Littleport will add to the on-going Regional/Local research on the Roman period. Research and Archaeology: A Framework for the Eastern Counties - 1. Resource Assessment (Going in Glazebrook 1997) for the Roman period notes the lack of knowledge of rural settlements in the region (Going in Galzebrook 1997, 38). Indeed there is a need to define the settlements kinds, which do not fit the traditional terminology (e.g. Villa). The excavations at Camel Road, while indicating 'Villa' or high status settlement, do so in an area previously thought to be part of larger Imperial Estates, to remote for Villa type estates

(Potter 1992, 1996). For the Roman fens, Potter in Fenland Research (No:7 1992), does state that the hypotheses for the area, are largely based on few facts. The Roman 'small' town or administrative centre at Stonea Grange, Wimblington has been interpreted as the Imperial centre for the fens and as such replacing/discounting the need for private Villa estates within the fens. Came! Road will provide both a challenge to these existing theories and secure data for the understanding of the Littleport area. The excavation, although limited, provides large, quantified and importantly *stratified* site and artefact assemblages, which not only inform about Camel Road, but provide important implication for the fens in general.

Roman settlement in the Littleport area, particularly to the north along the Old Croft, has been interpreted as Salterns, utilising the natural environment for production (Hall 1996, Coles & Hall 1998). This industry has been linked to the hypothesised Fen Imperial Estate, however the results at Camel Road will throw new light on these claims. The interpretation of these sites within the Fenland Project (Hall 1996) is based on field walking programmes, albeit fairly comprehensive and as such need the support of excavated sites. Importantly the understanding of the ceramic material for trade and transportation, relationships to the Roman Roads (e.g. Akeman Street) and the waterways (e.g. possible docks at Stuntney and the Car Dyke Canal), within the fens will add to the on-going research on the Cambridgeshire potteries, particularly the industries at Horningsea and for settlement along the southern fen edge (e.g. Milton, Landbeach, Waterbeach, Denny End, Cottenham etc.) and Cambridge City.

There has been scant opportunity to investigate sites of this depth of stratigraphy in Roman Cambridgeshire, outside of the urban centres at Godmanchester, Cambridge and Durobrivae (Water Newton). Along with Stonea Grange, Camel Road, Littleport will provide a base for understanding the development of a site, whose economic and settlement focus changes through time and which may shed light of the wider processes of environmental change and the socio-political role of the Roman fens.

The general picture of the Roman fen and fen edge settlement develops from an intensively developed southern and western perimeter towards the 'inhospitable' central fens, developing along the arteries of roads and waterways. Settlement clusters and site types have been defined in the Fenland Project, in the main from fieldwalking, with some limited excavated material to support (Hall 1996). It has been suggested that these sites were geared towards cattle and selected industrial functions. Agricultural siltland settlements were mainly concerned with animal husbandry (Coles & Hall 1998). The most remarkable (Coles & Hall 1998) Roman discovery in the fens, remains the Roman building at Stonea Grange, first identified in 1979 and excavated during the early 1980's by the British Museum (Potter 1996). The massive building has formed the basis for a theory of an Imperial Fen Estate and administrative centre. This, although many Roman villas are located around the fen-edge are thought to have controlled large territories. It may be that the high status settlement at Camel Road, Littleport was controlling the Littleport Salt Industry up the Old Croft (Coles & Hall 1998), rather than sites such as Stonea Grange (Potter 1996).

7.2.1 STRATIGRAPHIC AND STRUCTURAL DATA

The contextual data is the main component of data and is sufficient to form the foundation of the site narrative. The sites major significance is based upon the recording of the stratified sequence of Roman occupation, within a limited area and rare for the fens, with short span occupation at rural sites the norm.

The elucidation of an industrial function for ditches and gullies will be important. The interpretation of the sites functional changes, as demonstrated by the different stratigraphical records of ditches, structures, enclosures etc. is of importance. In addition the overall understanding of the sites development will be enhanced with regards to its place in a wider. Roman settlement, to which the site at Camel Road, is but a part.

Preliminary pottery dating has indicated that there does not exist a tight dating sequence from artefactual material alone, indeed the sites *phasing* is more accurately determined by the stratigraphical records. It is into the matrix that all artefactual material will be fitted.

7.2.2 POTTERY

The collection is of regional interest for a number of reasons. Quantified data from rural (or indeed urban) sites in the region are sadly lacking and this site will help address that. Further all the indications from the site would seem to suggest it was something more than a basic rural site. The presence of fairly high Samian levels, as well as high levels of other finewares and the presence of a relatively large quantity of Dressel 20 amphorae for a rural site all indicate this. Whilst from the 3rd century high fineware levels on sites in the Nene Valley region may be found even on rural sites because of the supply factors. The ceramic indications at this stage would seem suggest that this was a villa site, despite the alleged lack of such sites in the Fens. The presence of box flue tiles amongst the tile would also suggest this and must imply a nearby bathhouse.

Fabric supply to the site may well help to elucidate more about the marketing of Horningsea wares, about which there is currently little quantified information. Understanding the trade patterns of the Fenland will be enhanced, especially as the site will contribute to other studies around the Cambridge fen edge, including the Car Dyke Roman canal. The presence of North Lincolnshire Dalesware on the site is of intrinsic interest, indicating some material returning from the east coast trade with the Humber.

7.2.3 THE FAUNAL REMAINS

The small size of the assemblage was in part off-set by the importance of some data for site interpretation. A full report was undertaken since conducting an assessment would not be worthwhile. The importance of the assemblage is based upon the distribution of the recovered material. Although small, the faunal assemblage, and in particular the cattle component, are present in the later deposits and in ditches. This information will add to the understanding of the sites functional changes, particularly towards the final phases of occupation. The faunal report will provide data for spatial patterning across the site and will be considered in conjunction with the types and morphology of features.

7.2.4 DAUB AND FIRED CLAY

The recorded data will provide useful evidence for the social trends of the settlement and local woodland management industry.

7.2.5 TILE

Although the assemblage is particularly small, it contains extremely useful information pertaining to the surrounding area, the sites status and the settlements role within the local economy. Why the material was brought to this part of the site is unknown, although rubbish is most likely.

7.2.6 OTHER FINDS

7.2.6.1 Stone/Masonry

The presence stone has some importance in detailing the sites development and its specific concentration within Phase 4 is of importance. Sourcing the material (including coal) will be useful in determining trade and local contacts.

7.2.6.2 Wood

The very poor and small quantity of wood recovered has no potential to contribute to the sites interpretation.

7.2.6.3 Shell

Although only a small assemblage of shells were recovered from the site, the presence of this material will be of some use in determining diet and potentially local trading networks.

7.2.6.4 Glass

The very small quantity of glass recovered has no potential to contribute to the sites interpretation.

7.2.7 PALAEOENVIRONMENTAL (FORAMINIFERAL)

The analysis of saline levels did not provide any significant data which would influence the interpretation of the sites activity and function zones.

7.2.8 ENVIRONMENTAL (PLANT MACROFOSSIL)

The analysis of the charred plant remains will significantly contribute to the economic reconstruction of the site. The research objectives at both a regional and localised site level sought to investigate the local environmental, agricultural and economic variable affecting the site and its wider role or functions (and whether these have changed through time). This would thus also include an analysis of both spatial and temporal variation. The results of the environmental analysis/report will address each of these objectives.

8 RESEARCH AIMS

8.1 Excavation Aims

As previously stated (in detail in Section 2) the aims of the project were to recover a sample record of Romano-British activity on the site. The specific site based objectives were as follows:

- Is the site representative only of domestic activity or is it associated with industrial processes (such as salt making)?
- What is the full period span of (Roman) activity on the site?
- What was the character of the local environment and how did this influence the diet and economy of the settlement?

- How unstable was this roddon-based location, and what if any steps were taken to counteract periodic flooding?
- Are there any indications of exotic contact which relate to the site's proximity to what is assumed to be a major access to the region from the coast (and therefore continent)?

8.2 Revised Aims

The broad aims of the excavation are unchanged, however a number of questions have been raised based on the nature of the data generated by the excavation.

The primary aim of this project is to publish a coherent description and interpretation of the findings of the archaeological project undertaken at Camel Road, Littleport and to disseminate the findings of the various aspects of this analysis through inclusion in a range of suitable publications. A number of objectives have been highlighted below which will help to ensure that these aims are realised. Some objectives will apply across periods, spatial patterning and to all artefact assemblages whereas other more specific questions will apply only to certain elements of the site record.

- Objective 1 To produce an accessible archive of the results requiring:
 - 1.1 To produce a detailed description of all excavated/recorded features.
 - 1.2 To establish, where possible, secure grouping and phasing of all excavated/recorded features.
 - 1.3 To clearly identify and describe the elements characterising individual groups and phases.
- Objective 2 To attempt the interpretation of the functional nature of the site by groups, location and period.
- Objective 3 To place the interpretation of the site within its local context with reference to previous work on sites within the immediate vicinity.
- Objective 4 To place the interpretation of this site within its regional context with reference to contemporary and comparable sites in the region.
- Objective 5 To highlight the potential for re-assessment of any aspects of pervious work in the local area where the findings of the recent excavations may indicate a need fro a re-appraisal of accepted theories.

8.3 General Research Topics.

The post-excavation results from Camel Road, Littleport will contribute to the following research topics.

- (1) Refine the dating and sites sequence for the development of the Roman settlement.
- (2) Contribute towards an understanding of the distribution and development of the pottery of the Romano-British period in the region and in the Cambridgeshire fens in particular. The pottery will be included in a forthcoming English Heritage for Cambridge fen edge pottery, although the existing data is sufficient for site analysis.
- (3) Contribute to discussions on the interpretation of the Roman fens as provided by Philips and the Fenland Survey results.
- (4) Add to the on-going debate concerning the social, economic and political development of the fens and the theory of Imperial Estate and Villa ownership.

Contribute to knowledge about Romano-British settlement organisation and the implications of high status material within the fens.

- Understand the process of *intra* site development and changing economic and occupation function of the site and the implications for the development of the wider area. Interpret these changes through the environmental changes and impact of the wider fens during the Roman period. This will contribute to the knowledge of the character and management of the fens during the period and suggest models for the fluctuating sea levels and exploitation of resources.
- (6) Contribute to the investigations of Roman coastal agricultural regimes (Going in Glazebrook 1997) and the character, change and development of Romano-British rural life. The understanding of the full sequence of site occupation will provide excellent data for an area possessing few such stratified sites.
- (7) Understand the sites wider contacts both within and beyond the fens.
- (8) Understand the sites role within the context of the Roman Littleport salt industries.

It is important to note that each of the areas of analysis will be of little value if studied without regard to its context both at site, local and regional level. Assessment has indicated that there may be potential for looking at the spatial/stratigraphical distribution of a number of data types. The function and activity zones on the site change both through time and with regard to spatial positioning. Certain periods are richer in faunal remains and the industrial activity shifts through the site. Further analysis will show the full development of the site and the implications for the sites economic and functional development, potentially demonstrating both zonal and temporal activities.

9 METHODOLOGY

In order to contribute to realising the sites significance outlined above (7.1), meet the original project aims (8.1) and revised research aims (8.2), as well as contribute to the broader research topics (8.3), the following methodology has been devised with reference to those objectives highlighted within section 8.2 of this report.

9.1 The Stratigraphic and Structural Data

9.1.1 Section of data for further analysis (Objectives: 1, 2, 3, 4, 5)

All relevant records will be subjected to further analysis upon receipt of specialist analytical reports and specific artefactual materials. Comparisons with nearby Romano-British sites and similar features will be sought to aid in feature and site interpretation. Equal consideration should be given to those features/deposits without clear functional interpretations or local parallels to contrast the spatial groupings and settlement zones across the site.

9.1.2 Grouping and Phasing (Objectives: 1, 2, 3, 4, 5)

A degree of preliminary phasing and zonation has already been achieved. The following techniques will be utilised:

- a) Artefact identification and categorisation by individual specialists, specifically the ceramic artefacts which occur in securely stratified contexts.
- b) Gross quantification of specific artefact types; particularly to characterise the length of site occupation and, where possible, understand the changes and developments during each individual phase.
- c) Plant and Mollusc data will be incorporated into the record to determine the palaeoenvironmental conditions of each phase of occupation and what, if any, conclusions can be drawn which relate to the function and occupation of the site.

d) Where no artefactual/ecofactual data is available grouping and phasing may be attempted using inter and intra site comparisons with features and deposits of similar morphology and/or interpretation.

9.2 Artefacts

For all categories listed below material recovered from the evaluation must be integrated with the bulk of the excavation assemblages. Detailed methodologies and recommendations for analysis for individual material assemblages are contained within the relevant section of the Assessment of Archaeological Potential (Section 6). Most assemblages recovered from contexts consist of a range of different materials and typological elements. Discussions with the relevant specialists both prior to end following analysis will seek to examine these artefactual assemblages as coherent groups to contribute to interpretation. Due to the nature of the excavation, unstratified material and data recovered from areas not fully investigated will be considered since they will contribute significantly to the understanding of the site beyond the limits of the excavated area.

9.2.1 Pottery ((Objectives:1, 2, 3, 4, 5)

The pottery assemblage from the Roman settlement at Camel Road, Littleport is the first excavation on a site of high status in the area. The accepted pattern of local Romano-British rural sites is that of small farmsteads and industrial sites (including salterns), based on low status settlement. The site at Camel Road breaks this mould, with the discovery that the site is part of a more substantial high status or 'Villa' site.

In summary, the present level of investigation into the pottery from Camel Road, Littleport, which includes spot dating from all contexts and a full Samian catalogue will be sufficient for the site specific reporting. The incorporation with other larger assemblages will ultimately provide the basis for the Roman fen ceramic traditions.

9.2.2 The Faunal Remains (Objectives: 1.1, 1.3, 2, 3, 4, 5)

A full detailed report has been compiled on what is a small assemblage of faunal remains from Camel Road, Littleport. No further specialists analysis of the faunal remains is therefore required. The integration of the results of the faunal report is the remaining task. All recognisable fragments have been analysed recording species, skeletal elements, butchery, pathology and taphonomy. A more detailed investigation of worked antler, bone and horn was undertaken. Cattle horn cores have been measured for the purposes of ageing and sexing. Estimates of age have been attempted using the established methods of tooth eruption and mandible wear and the epiphyseal fusion of the post-cranial skeleton.

The quantification and analysis data of the domestic species will be considered when attempting to understand the sites economy in terms of animal husbandry and function in general. When considered together with the stratigraphic data it may be possible to distinguish the relative importance of different domesticates over time.

9.2.3 Daub and Fired Clay (Objectives: 1.1, 1.3, 2, 3, 4, 5)

No further work is necessary on the daub assemblage, however the importance of the interpretation and integration of the results, particularly with reference to potential intra site status will be important.

9.2.4 Tile (Objectives: 1.1, 1.3, 2, 3, 4, 5)

The presence of fragments of high status tile is of importance. The assemblage will be compared to other similar settlements to determine, if possible, the implications of this material and what, if any, conclusions can be inferred relating to the nearby roman settlement(s).

9.2.5 Other Finds

9.2.5.1 Stone/Masonry (Objectives: 1.1, 1.3, 3, 4)

All stone or masonry on the site is imported and the source, distribution and contact with the site is of interest. No further work is required on the stones themselves, other than sourcing.

9.2.5.2 Shell (Objectives: 1.1, 1.3, 3, 4)

The material needs to be sourced and general implications for local diet inferred.

9.2.5.3 Metallic Finds (Objectives: 1.1, 1.3, 2, 3, 4)

No further work needs to be carried out on the material, although existing data will be incorporated into the final report.

9.2.6 Foraminiferal (Objectives: 1.1, 1.3, 2, 3, 4, 5)

Interestingly the negative results of this analysis have important implications for local research frameworks, in particular the presumed Littleport Saltern industries. Although no further analysis is possible, the failure to support salt production has ramifications for both site interpretation and implications for nearby settlements.

9.2.7 Plant Macrofossils (Objectives: 1.3, 2, 3, 4)

Although the general quality and survival of plant macrofossils is poor, the burnt deposits have produced important data. In addition the nature of the remains will provide useful information on the site function and hierarchy towards other nearby settlements.

The material recovered from these samples should provide useful data to support the interpretation of specific features and the site as a whole, from other sources of evidence. In addition, the assemblage should be usefully compared with those from other appropriate sites within the region (Murphy in Glazebrook 1997).

The charred plant remains have provided good data for palaeoenvironmental reconstruction on the site and the above report represents a full analysis of the sampled material. Therefore no further analysis will be undertaken.

10 TASK LIST

The project team will consist of the project director (project officer & author), project manager, illustrator(s) and assorted consultant specialists.

The project team consists of:

Project Director - Stephen P. Macaulay, Project Officer

(& author) Cambridgeshire County Council Archaeological Field Unit	(SPM)	
Project Manager - Tim Malim, Field Unit Manager (CCC AFU)	(TM)	
Illustration and desk-top publishing - Jon Cane, Caroline Malim (CCC AFU)	(ILL)	
Specialist Consultants		
Ceramic Analysis - Jerry Evans (Evans & Rataki)	(JE)	
Coins, Fe & Cu Alloy - C. Montague (CCC AFU)	(CM)	

Personal work programme for principal members of the team

Project Director:

Preparation of text for publication.

Liaison with specialists and incorporation of reports in main text.

Consultation with illustrators and desk-top publisher

Consultation with editor on final publication.

Project Manager:

Editing and proof reading report.

Illustrator(s):

Production of publication quality maps, plans, sections and artefact

illustrations. Desk-top publishing.

Key to abbreviations in Task Lists

FC=Finds Co'-ordinator, ILL=Illustrator, PM=Project Manager, PO=Project Officer,

SC=Specialist Consultant, EC=External Consultant

10.1 The Written Record

Task	Days	Staff
Write individual feature/deposit descriptions	5	(PO)
Collate and review results of previous work from the local area	2	(PO)
Write historical background	2	(PO)
Discuss results of assessment with post-excavation team	0.5	(PO)
Review results of specialist analyses	2	(PO)
Compile list of illustrations and liase with illustrator	2	(PO/ILL)
Collate results of specialist reports	2	(PO)
Incorporate the results of specialist reports	2	(PO)
Produce plans/maps/sections	10	(ILL)
Write Excavation report	8	(PO)
Assemble report	5	(PO/ILL)
Write summary of results/conclusions	2	(PO)
Edit report	2	(PM)
Incorporate edits	2	(PO)
Proof Reading	2	(PM/EC)
SMR summary	0.5	(PO)
Archiving	1	(PO)
TOTAL	55 day	S

10.2 SPECIALIST ANALYSIS

Task	Days	Staff		
Pottery Report Integration	2	(SC)		
Pottery Illustration	5	(ILL)		
Faunal Remains	n/a			
Ceramic Building Material	(inc. in	(inc. in Pottery Report)		
Stone/Masonry	n/a			

Daub	n/a	
Shell	0.5	(SC)
Glass	n/a	
Iron/Fe Material	n/a	
Bronze/Cu Alloy	n/a	
Lead/Pb	n/a	
Slag/Fe	n/a	
Plant Macrofossils	n/a	

11 PUBLICATION SYNOPSIS

In addition to the archive report, it is intended to publish the report in the Proceeding of the Cambridge Antiquarian Society, a refereed local journal of national standing. Summaries will be submitted to Britannia (Notes). As stated above the pottery will be included in a forthcoming English Heritage project for the Roman Cambridgeshire Fenland and Southern Fen-edge.

It is suggested that the final report will follow an established pattern, as follow;

Background to excavation, archaeological and historical context

The site summary - phases of activity

The pottery and ceramic material

The environmental remains

The faunal remains

The other finds

Discussion and Conclusions (including regional and local settlement contexts)

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