

**MARSH LEYS FARM
INDUSTRIAL DEVELOPMENT
KEMPSTON, BEDFORDSHIRE
PHASE 2**

Written Scheme of Archaeological Resource Management

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Gazeley Properties Limited

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Non technical summary

This document represents the Written Scheme of Archaeological Resource Management (WSARM) for the Phase 2 development at Marsh Leys Farm.

Archaeological evaluation has demonstrated that a late Iron Age/Roman settlement underlies the development. The remains within Phase 2 are more extensive than those investigated within Phase 1 and could represent either an individual farmstead that has shifted in location over time or a village type settlement. The County Archaeological Officer (CAO) has deemed this to be a significant archaeological site with the potential to address national and regional research agendas.

The archaeological remains cannot be preserved coherently within the development and will be destroyed. Therefore, in line with the Brief issued by the CAO, an archaeological investigation will take place in advance of development. This is in line with Bedford Local Plan Policy HA2 and guidance contained in PPG16 Archaeology and Planning. This WSARM establishes the objectives of the investigation and the methodology for achieving them.

A number of national and regional research frameworks are relevant to the investigations. These include the Iron Age to Roman transition, rural settlement/economy and ritual/burials. The specific objectives for Phase 2 include:

- *Establishing a chronological framework*
- *Form and development of the settlement*
- *Society and economy*
- *Environment*

The proximity of the Phase 1 farmstead, approximately 450m to the north-west enhances the significance of the Phase 2 investigations. The results will enable the interaction of contemporary settlements situated within the same topographical location to be examined in detail.

Although a detailed excavation method statement is provided in this document, the actual excavation strategy can only be established once the pre-excavation plan has been produced. This will be the first key stage in the project and enable subsequent hand excavation/recording to be focused on features/deposits that are likely to address specific project objectives.

An essential part of the excavation strategy is the ability for rapid feedback of artefact/ecofact information. This is possible due to BCAS' integrated computer system. It will enable a continual review of the project objectives throughout the fieldwork. Adjustments to the strategy can therefore be made, in discussion with the CAO, while the fieldwork is taking place.

In addition to the objectives and strategies this document also details the resources and the anticipated programme of this project, with detailed appendices at the back.





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Preface

Every effort has been made in the preparation of this Document to provide as complete a Project Design as possible, within the terms of The Brief. All statements and opinions in this document are offered in good faith. Bedfordshire County Archaeology Service (BCAS) cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party, or for any loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in this document.

Mike Luke (Project Officer) and Drew Shotliff (Project Manager) have prepared this document. Comments/suggestions by Mark Maltby (animal bones), Mark Robinson (charred plant remains) and Pete Murphy (ecofacts) have been incorporated as appropriate.

Keywords

Throughout this document the following terms or abbreviations are used:

CAO	County Archaeological Officer of BCC
BCAS	Bedfordshire County Archaeology Service
BCC	Bedfordshire County Council
Client	Glazeley Properties Limited
LPA	Local planning authority: Bedford Borough Council
Procedures Manual	Document: <i>The BCAS Fieldwork Procedures Manual (2001)</i>
The Brief	Document: <i>Brief for the management of the archaeological resource at Marsh Leys Farm, Kempston, Bedfordshire</i>
WSARM	Document: <i>Written scheme of archaeological resource management</i>

Structure of this document

This document is presented in two parts. The project specific sections 1 to 6 describe various elements of this particular project, with the appendices providing a greater level of detail.

Section 1 introduces the project in terms of planning and archaeological background, location of the development and the approach to be taken with the archaeological resource. The aims and objectives are outlined in Section 2. The fieldwork strategy is presented in Section 3 linked to the aims and objective, with a general outline of the post-fieldwork stages of the project in Section 4. Details of the resources to be dedicated to this project are presented in Section 5. The provisional programme is given in Section 6.

Detailed appendices at the back of this document present method statements for the excavation (appendix 1), earthwork survey (appendix 2) post-fieldwork analysis and reporting (appendix 3) and project staff CV's (appendix 4).





1. INTRODUCTION

1.1 *Planning background*

In 1998 the *LPA* granted outline planning permission (98/00992/OUT) for industrial development centred on Marsh Leys Farm. One of the conditions (no. 22) required the implementation of a programme of investigation. The first stage of this, known as an evaluation, was designed to assess the extent, nature and date of the archaeological remains within the development area. After the completion of the four stages of evaluation condition no. 22 was revised to state:

No development shall take place within the areas of the site marked A-D on Figure 1 of the *Brief for the Management of the Archaeological Resource at Marsh Leys Farm, Kempston, Bedfordshire* (23 September 1999) until the applicant or developer has secured the implementation of a programme of archaeological investigation and management of sites preserved *in situ*, in accordance with a written scheme of investigation and management, which has been submitted to and approved in writing by the Local Planning Authority.

This condition is in line with Local Plan policy HA2 and the guidance contained in PPG 16 *Archaeology and Planning*.

1.2 *Location of Phase 2*

Phase 2 extends over the remainder of the Marsh Leys development area not covered by Phase 1. It will comprise commercial warehouses with associated access roads. Contained within it are Archaeologically Sensitive Zones B (c. 4ha), C (c 1.1ha) and D (c. 1.4ha), as designated by the *CAO's Brief* (Fig 1).

1.3 *Project background*

This document has been prepared at the request of the Client and represents a written scheme of archaeological resource management (WSARM) for the Phase 2 development. It has been prepared to conform to the *Brief*. Where possible the details within that document are not repeated, unless deemed specifically necessary.

1.4 *Archaeological background*

1.4.1 *Knowledge prior to evaluation*

BCC has a catalogue of archaeological sites and historic buildings, the Historic Environment Record (HER), in which all known discoveries in Bedfordshire are recorded. One large HER site (HER 9600) was known to be centred on Marsh Leys Farm based solely on cropmarks indicative of archaeological features visible on aerial photographs (see Fig 1 of ¹).

¹ BCAS 1999 Marsh Leys Farm Archaeological Field Evaluation Stages 1, 2 and 3 (Report 99/01)
Marsh Leys Farm Industrial Development, Kempston, Bedfordshire Phase 2
Written scheme of archaeological resource management



1.4.2 Results of the archaeological evaluation

The evaluation² demonstrated that two late Iron Age/Roman farmsteads/settlements were situated within the proposed Marsh Leys development area. The extent of these was determined by the evaluation and is shown on Fig 1 of the *Brief*. Both farmsteads (areas A and B) comprise a "core" area of settlement and periphery activity (area C). It is possible the two farmsteads (which appear to be contemporary) are linked by a trackway.

1.4.3 Results of the Phase 1 excavations

Archaeological investigations over Areas of Significance A and C located in the Phase 1 development were undertaken between July and December 2000. Approximately 1.6ha were examined in open area excavation (Area A) and an additional 1.8 ha by transect excavation (Area C). The data recovered is still being examined as part of the Assessment process and the following is therefore only an interim statement.

A small quantity of early-middle Iron pottery was recovered suggesting occupation occurred during this period. However, only a small number of features of this date were identified making the nature of activity at this time uncertain.

The earliest firm activity within Phase 1 was the establishment of a late Iron Age unenclosed farmstead, which continued to function into the early Roman period. It comprised at least three roundhouses associated with a small number of pits and a small cremation cemetery. Apparently situated centrally within this was a small square building contained within a ditched enclosure. The form of this is comparable with shrines identified elsewhere in Britain. This interpretation is supported by the deposition of two chickens and two bronze coins within a small pit 3m to the north of the ditch. This is suggestive of sacrificial activity.

Probably during the 2nd century AD the farmstead was subject to substantial changes. A rectangular system of enclosures was established orientated on a pre-existing major boundary. Several of these contained structural activity (although no clear building plans were observed), pit clusters, inhumation burials and water pits. The majority of the latter comprised large pits over 1.5m in diameter and over 1.2m deep. One was exceptional in that it was lined with limestone blocks forming a well shaft 1m in diameter. With the exception of one, all the peripheral enclosures were devoid of activity except for water pits, suggesting many of these served as animal corrals.

No peripheral activity related to crop processing/storage or craft/industrial activity was identified within Area C. However, several ditches continued into this area suggesting the continuation of some fields.

² BCAS 1999 Marsh Leys Farm Archaeological Field Evaluation Stage 4: trial excavation and synthesis of results (Report 99/23)



1.5 Management of the Phase 2 archaeological resource

The nature of the construction within Phase 2 will destroy much of the archaeological remains. It has therefore been decided that these remains will be investigated in advance of development and 'preserved by record' (*Brief* section 6.5).

This document represents a WSARM, which will be approved by the *CAO* prior to the commencement of archaeological fieldwork.





2 AIMS AND OBJECTIVES OF THE INVESTIGATION

To maximise the information that can be obtained from the investigation of the archaeological remains within the development it is necessary to consider a range of aims and objectives (*Brief 8.3*) that could be achieved.

National and regional research priorities for the Iron Age and Roman periods have been discussed in some detail in the Stage 4 evaluation report (section 6.2.1). Although this *WSARM* is specifically concerned with the Phase 2 development, the same aims and objectives addressed in Phase 1 are still valid.

2.1 National and regional research frameworks

National research priorities have been formalised by English Heritage in *Exploring our Past* and more recently updated in the Archaeology Division's *Research Agenda* (draft 1997). The archaeological sites within the present and subsequent developments will have a particular reference to a number of these:

Processes of change	<i>Britain into Roman</i>
	<i>Empire to kingdom</i>
Themes	<i>Settlement hierarchies and interaction</i>
	<i>Rural settlement</i>
	<i>Craft and industry (including agriculture)</i>

At a regional level research frameworks have been outlined in Glazebrook³, with research agendas recently published in Brown and Glazebrook⁴. In addition to the national research agenda the following have relevance to the Phase 2 development:

Rural settlement	<i>Non-villa settlement</i>
	<i>Complete ground settlement ground plan</i>
	<i>Local landscape context</i>
	<i>Food consumption and production</i>
	<i>Burials</i>

Period-based archaeological surveys of relevance to the Phase 1 farmstead include Haselgrove⁵, Hingley⁶, and Millet⁷. These discuss many of the broad themes established as national and regional research objectives. However they stress the particular importance of achieving a greater understanding of:

- the transition from Briton to Roman- including all issues associated with 'Romanisation' for example agricultural intensification,

³ Glazebrook, J (ed.), 1997, *Research and Archaeology: A framework for the Eastern Counties, 1. resource assessment*

⁴ Brown, N and Glazebrook, J, 2000, *Research and Archaeology: A framework for the Eastern Counties, 2. research agenda and strategy*

⁵ Haselgrove, C, 1989, 'The later Iron Age in southern Britain and beyond', in Todd (ed.) *Research on Roman Britain 1960-89*, Britannia Monograph 11.

⁶ Hingley, R, 1989, *Rural settlements in Roman Britain*

⁷ Millet, M, 1990, *The Romanisation of Britain*



- the origins and morphology of rural settlement- were there earlier Iron Age origins?, can agricultural activities be identified? etc.

By examining a complete late Iron Age/Roman period farmstead the investigations within the Phase 2 development will have the potential to address many national and regional issues. Hingley and others have emphasised how poorly understood farmstead type settlements are, especially when compared to higher status villa and urban settlements. Although increasing numbers are being investigated, these have tended to take place within the context of linear projects, such as road or pipeline schemes, where only parts of the overall settlement have been investigated. The Phase 2 development, like Phase 1, allows a rare opportunity to investigate an entire farmstead.

The significance of the investigations is greatly enhanced by the presence of a contemporary settlement to the north-west (Phase 1). This will provide a rare opportunity to examine by comparable strategies/methods two areas of a late Iron Age/Roman landscape within the same locality. It will therefore be possible to examine individually and as a group the origins, morphology, development and economy of two adjacent farmsteads. Both can then be compared to nearby partially excavated settlements (those investigated in advance of the construction of the Bedford Southern Bypass and housing development on the Biddenham Loop). Therefore the project will be able to build up an overall picture of the landscape in the late Iron Age/Roman period.

2.2 Specific objective of the Phase 2 investigation

Outlined in this section are a series of very specific research questions that can be asked of the Phase 2 farmstead. These provide the framework within which methodologies have been developed. A direct link from objective to methodology has been made explicit in section 3.

All aims and objectives will be reviewed regularly throughout the project to ensure that:

- they are still relevant to the data being uncovered
- methodologies are still appropriate.

A preliminary key review stage will take place once topsoil has been removed from Area B. It is at this stage that all features will be visible and, once planned, detailed strategies for sample excavation of these will be established.

A number of major themes can be identified such as 'chronology', 'society and economy' and 'environment'. Specific objectives have been organised into these groups and methodologies developed to address them.

2.2.1 Objective 1: Chronology

The establishment of a chronological framework for the farmstead (especially the origins and sequence of development) will be a priority for the investigation. Once the framework is established it will provide the basis for



which all other objectives are examined. It will be essential that any chronological framework established for the Phase 2 is sufficiently accurate that it can be compared with the Phase 1 farmstead.

2.2.2 Objective 2: The form and development of the farmstead

The establishment of a ground plan and sequence of land use development within the farmstead will enable spatial and chronological variation to be identified. This may comprise changes over time, for example in building style, burial practices, agricultural practices etc. These are potentially relevant to a number of research issues such as 'Romanisation', agricultural intensification etc. Evaluation has suggested a number of domestic foci exist. Do these represent a chronological shift, perhaps from the late Iron Age, or are they an effect of sub-dividing the original farm? Was the farmstead in continuous use until the late Roman period or was there episodic abandonment?

More specific questions include:

- A. The drop off in features within the evaluation trenches suggests the majority of the farmstead will be contained within the excavation area. It should therefore be possible to ascertain the complete ground plan. In addition does the south-west to north-east linear arrangement of ditches represent a major boundary, trackway or droveway? (*see* Stage 4 evaluation report Fig 23 and Fig 26). Are the rectangular enclosures attached to this boundary? Do the isolated smaller enclosure represent earlier or later activity? (*see* Stage 4 evaluation report Fig 29)
- B. The results of the evaluation suggested that only minor alterations to the enclosure system had taken place. Does excavation confirm this? If not are there phase of more wholesale re-organisation?
- C. Concentrations of domestic features and debris were located within the evaluation trenches. Do these represent separate contemporary farmsteads or the movement of the same farmstead over time? Can different zones of specific activity within both the core settlement area and the periphery be identified? Can other specific activity areas be assigned to different functions (e.g. crop-processing, crop-storage, craft/industrial etc)? How was movement through the settlement organised and controlled?
- D. Can the pattern of artefact/ecofact disposal across the farmstead be reconstructed? Does this help in our understanding of spatial organisation, for example specific areas of middening activity? (*see* objective 3c)
- E. Apart from the south-west to north-east boundary or trackway the evaluation produced only limited evidence for activity beyond the enclosure system. Is this correct or is there evidence for low intensity peripheral activity within Area C, perhaps of an agricultural, industrial or funerary nature?
- F. Do key assemblages, e.g. from features with critical stratigraphic positions, buildings etc., contain suitable dating evidence? If not do these features contain suitable material for radiocarbon or archaeomagnetic dating?
- G. Is there any evidence for earlier Iron Age activity?



2.2.3 Objective 3: Society and economy

- A. Do deposits survive to reconstruct the economy of the farmstead? What was the mix between arable and stock, and did this change over time, perhaps associated with “Romanisation”? Did butchery practices change over time and do they display any evidence of “Romanisation”? Are other economic activities represented? Is it possible to identify activities representative of subsistence or market-driven production?
- B. Do artefacts indicate economic or social contacts with groups at a local, regional, national or international level? In particular, how long-lasting were native Iron Age (British) traditions into the Roman period and can Romanising influence be identified?
- C. Does evidence survive for the structured deposition of artefacts or ecofacts? Waite⁸ and more recently Hill⁹ have demonstrated how the deposition of artefacts in ditches (often terminals) and pits might be the result of structured social behaviour rather than opportunistic dumping.
- D. Two inhumation burials were identified during the evaluation (*see* Stage 4 evaluation report page 39). The likelihood of additional individual graves and even cemeteries is high. Is there any evidence that burial rites change over time? The examination of burials would also provide important information on the pathology and contribute to the debate on the significance of burial locations, for example Bevan¹⁰ has suggested burials were often placed near trackways so the dead could travel along this route to the other world.

2.2.4 Objective 4: Environment

- A. Do deposits contain evidence to indicate the local ecology and environment of the site?
- B. The evaluation identified only a limited quantity of carbonised material within feature fills. These are likely to provide the best indicator to any cereal crops grown and other wild plants. What evidence is there for the economy of the farmstead? Animal bone species will also provide a valuable indicator of the pastoral economy, and possibly the utilisation of wild animals.
- C. No waterlogged deposits were located with the evaluation. However, given the low-lying location of the farmstead, these may survive within deeper features such as pits and wells. If so they are likely to provide additional information on the local environment and possibly the economy of the farmstead.

2.2.5 Objective 5: Methodological development

- A. What is the range of post-depositional processes that have acted on the site and how have these combined to affect the preservation of archaeological remains and interpretations of those remains?
- B. Can sampling strategies be developed to better target areas with high potential? Should some areas of the site be more fully excavated than others?

⁸ Wait, G, 1985, *Ritual and religion in Iron Age Britain*

⁹ Hill, JD, 1995, *Ritual and rubbish in the Iron Age of Wessex*

¹⁰ Bevan, B (ed.), 1999, *Northern exposure*



- C. How does the resultant farmstead ground plan compare with that suggested by evaluation? Are certain feature types more or less likely to be located by evaluation? With the benefit of hindsight could the trial trenches have been better located?
- D. Can the pottery assemblage improve the ceramic type series for the region? The preponderance of locally produced coarse wares using local raw material in the Iron Age makes precise dating difficult.
- E. Although the artefact recovery rate from the evaluation was relatively low, full excavation and systematic metal detecting will increase the potential of artefact recovery. Comparison with the nearby farmsteads investigated on the Biddenham Loop and the Southern Bypass should go some way to contributing to identifying an artefact profile for farmsteads. This will enable them to be placed within the wider context of the more widely investigated villa and urban forms.





3. FIELDWORK STRATEGY

3.1 Introduction

This section outlines the different methodological approaches and their purpose (linked to the project objectives). It also sets out the methodological standards, health and safety and quality assurance. The detailed method statements required by the Brief (section 7.1) are presented in Appendix 1 and 2.

3.2 Methodological standards

Throughout the project the standards set out in the following documents will be adhered to:

- IFA's *Codes of Conduct and Standard and Guidance for Archaeological Excavations*;
- English Heritage's *Management of Archaeological Projects* (1991);
- Bedfordshire County Council's *Procedures Manual: Volume 1 Fieldwork* (1997).
- *Preparing Archaeological Archives for Deposition with Registered Museums in Bedfordshire*

3.3 Mechanical removal of overburden (Task 2.1)

3.3.1 Open area excavation Area B

The evaluation trial trenches demonstrated that archaeological remains were deeply buried (500mm of topsoil and subsoil is present).

The method of the removal of the topsoil will be dependent on the ground condition at the time. This will comprise either:

- Box scraper
- D7 bulldozer

Once this is complete the lower subsoil will be removed by a 360°-tracked excavator, fitted with a ditching bucket, operating under constant archaeological supervision. Once sensitive archaeological remains or the upper surface of undisturbed drift geology is reached excavation will cease and no machine movement across this area permitted. Depending on ground condition the subsoil will be removed by use of moxey type dump trucks or a bulldozer.

The limit of earthmoving is dependant on the extent of the archaeological remains, although it will not exceed the boundaries of Zones B and C. Within Phase 1 there was a clear "drop off" in the number of features away from the core of the farmstead. Open area machine stripping in Area B will therefore cease when there is gap of 15m from the last archaeological feature. If required by the CAO these presumed blank zones can be examined by transects in a similar manner to Area C (*see below*).



The removal of overburden will reveal the complete ground plan of the farmstead (objective 2a). This will enable other objectives such as 2b and c to be addressed. Earthmoving will probably commence from north to south.

3.3.2 Transect excavation Area C

A system of 4m wide transects will be opened by a 360° tracked excavator. The 360° machine will be fitted with a ditching bucket operating under constant archaeological supervision, down to sensitive archaeological levels or to the upper surface of undisturbed drift geology. These will cover an area up to a maximum of 4% of Area C. The location of these cannot be determined at this stage. This will depend on the feature alignment/distributions within Area B. A proposal will be submitted to the *CAO* separately for this fieldwork.

Based on the evaluation results Area C may contain a series of boundary ditches rather than isolated features such as pits and postholes. However, if the latter are present they may indicate areas of agricultural processing/storage, craft/industrial, burial etc., which is crucial to understanding of the layout and economy of the farmstead (objectives 2). Therefore the transects will be widened if the following are located:

- Non linear archaeological features- pits, postholes, burials etc.
- Ditch terminals
- Changes in ditch alignment
- Concentrations of artefact/ecofacts within ditch fills

Excavation and recording will then proceed to the same standard as for Area B. Area C will specifically address objectives 2a, d, e and g.

3.4 Pre-excavation planning/strategy (Task 2.2 and 39)

The identification of archaeological features will be made during machine stripping. These will be marked on the ground to prevent features 'disappearing' (this is a common phenomenon on gravel) and will ensure their location is known.

Once machining is complete pre-excavation planning will be undertaken. The plans will be captured digitally and used as the framework for the detailed excavation sampling strategy (*see below*). This will be discussed with the *CAO* at the first monitoring meeting.

3.5 Hand excavation and recording (Task 2.2)

All recording-numbering sequences (contexts, registered artefacts, environmental samples etc.) will continue those started in Phase 1.

Hand excavation will be concentrated on features/deposits that are likely to address specific project objectives. The maximum amount of pre-excavation investigation will be undertaken to identify stratigraphic relationships (to prevent the risk of contamination).



3.5.1 Pits and postholes

Initial investigation, for example the half excavation of a pit, will concentrate on interpreting the function/formational processes and recovering sufficient dating information (for example artefacts, stratigraphic relationships etc.).

All isolated features will be subject to hand excavation. Where groups of features, for example a concentration of postholes, cluster of pits etc. are encountered, only a sample (not less than half) will be subject to hand excavation. Features selected will include those:

- that provide a representative sample.
- where good quality and quantity of artefact/ecofact material is visible within deposits (objectives 1, 3 and 4).
- where stratigraphic relationships with other features are uncertain (objective 1)
- irrespective of the above, from a range of spatial location, dimensions etc.

The hand excavation of postholes will specifically concentrate on:

- door posts
- those adjacent to contemporary internal activity
- those with evidence for post-packing
- those with evidence for *in situ* burning

Additional hand excavation will take place if insufficient information has been obtained. The results of the initial sample will be assessed and discussed with the CAO to determine whether further hand excavation will contribute to the project objectives.

3.5.2 Ditches

Hand excavated segments will be located within ditches:

- at all ditch terminals and major changes in alignment. Hill⁹ has demonstrated these are the areas where significant artefact/ecofact material is frequently dumped (objective 3 specifically c).
- where good quality and quantity of artefact/ecofact material is visible within deposits (objectives 1, 3 and 4).
- where stratigraphic relationships with other features are uncertain (objective 1)
- to ensure a fairly even distribution of excavated segments.

Additional segments will be hand excavated if insufficient information has been obtained. The results of the initial sample will be assessed and discussed with the CAO to determine whether further hand excavation will contribute to the project objectives.

3.5.3 "Special" features

Burials and hearths will be subject to full (100%) hand excavation to assist in their understanding (objectives 3). Tree throws will only be investigated if they appear to be contemporary with the farmstead, or have the potential to



provide information on the date of clearance and species composition of woodland.

3.6 Artefacts (Task 4)

Artefacts have the potential to address objectives 1, 2c and d and 3. All artefacts revealed during fieldwork will be retained by context, with the exception of those recovered from topsoil (which will only be kept if they are of intrinsic interest). To maximise the metallic artefact assemblage a metal detector will be used routinely, both to check spoil and to locate metal artefacts in advance of the excavation of features.

3.7 Ecofacts (Task 3)

Ecofact information will assist in objectives 2c and d, and 4. Environmental samples will be taken from the following deposits:

- those visibly containing charred plant remains
- those where a significant animal bone assemblage has been recovered
- where waterlogging is possible
- for pollen, soil micromorphology and radiocarbon analysis
- irrespective of the above, as a sampling control (from the range of feature/deposit types, stratigraphic and spatial location etc.).

If a group of animal bones appears to be articulated, they will be exposed in their entirety. If appropriate these will be recorded as an “animal skeleton” in line with the *Procedures Manual*.

3.8 Feedback into and adjustment of excavation strategy (Task 39)

BCAS has an established system to ensure that there is a rapid feedback of information on recovered artefact and environmental material discovered during fieldwork in place. This utilises Computer Aided Drawing (CAD), databases and a GIS system (Gsys). It involves:

- digital pre-excavation plan
- the processing of artefact and environmental data concurrently with fieldwork
- the results of processing are entered into the Context Assemblage Database Table
- basic context information will be entered into the Context Database Table
- all input data can be manipulated using the pre-excavation plan as a backdrop using the GIS system.

In summary, the databases record basic information about deposits (context type, feature type, formation process, location *etc.*) and a basic identification/quantification of the artefactual and environmental material they contain. Spotdates are assigned for both the pottery (in its own right) from a deposit, and for the context itself (taking into account other dated artefact evidence). All this information will be used as a basis for reviewing the excavation strategy. It will also provide the basis for the post-fieldwork assessment of the excavated data (*see* 4.1).



3.9 Earthwork survey in Area D (Task 2.4)

A detailed earthwork survey will be undertaken which will include a plan, representative OD spot heights, cross sections as appropriate, and a photographic record, as appropriate. A written descriptive and interpretative record of the earthworks will be made (*see Appendix 2*).

3.10 Timetable, monitoring and decommissioning (Task 39)

The *CAO* will be informed of the commencement and completion of earthmoving. Monitoring arrangements will then be established (*Brief* section 7.8) and the *Client* informed of these in advance. No development can take place until the *CAO* has conducted a final monitoring of the area affected and given agreement in writing.

At the time of writing the *Client* has indicated that no system of staged-release is required. Should this situation change the *CAO* will be consulted immediately.

Irrespective of the *Client's* attendance at the monitoring meeting's interim statements will be faxed to the *Client* every other week.

3.11 Landowner issues (Task 39)

Prior to the commencement of substantive fieldwork BCAS will arrange with the *Client* to receive a letter from the landowner granting permission to undertake the excavation. In line with English Heritage and Bedford museum guidelines, BCAS will aspire to receive 'in principle' agreement from the landowner to donate the recovered artefacts to the relevant Museum (subject to statutory laws concerning human remains and treasure trove). This will ensure the recovered artefacts are ultimately stored in an appropriate publicly accessible location (*Brief* 7.2).

3.12 Health and safety (Task 39)

Bedfordshire County Council's *Health and Safety Policy* (1999) will be adhered to at all times and all work undertaken specifically to the BCAS *Health and Safety Manual* (*Brief* 7.4).

3.12.1 Special requirements

Any special requirements of the *Client*, contractors or utilities concerning safe working will be adhered to. Copies of utilities location maps, emergency contact numbers and procedures will be kept on site.

3.12.2 Risk assessment

A comprehensive risk assessment will be carried out before the start of fieldwork. As part of the Project Briefing all staff will be made aware of their responsibilities and the specific site hazards (identified under the risk assessment). It may identify the need to have a "logging in/out" system. The risk assessment will be reviewed regularly as the project progresses.

3.12.3 Security

All tools and equipment on site will be stored overnight in vandal-proof steel



units. The contractors working on Phase 1 and the police will be informed about the presence of the archaeological investigations and will be asked to check its security during their patrols.



4 POST-FIELDWORK ASSESSMENT, ANALYSIS AND PUBLICATION

4.1 *Assessment and Updated Project Design (Tasks 5-18)*

Following completion of the fieldwork, all recovered data will be processed, checked and the archive consolidated. The excavation results will then be assessed in order to establish the potential of the data for further analysis. This has already been undertaken for Phase 1, and the Assessment report will include this information. It is intended that a specialist meeting will be held during the assessment stage of the project.

The methodologies for the post-excavation and publication stage of this project will be included in the second part of the report; the Updated Project Design (UPD). To ensure a consistent and integrated approach this will combine both Phase 1 and 2. Although the various specialists will propose specific methods unique to their data, these will be unified within the BCAS Time Recording System (TRS) as identifiable task codes. These will be referenced within the UPD. Where appropriate a strategy for scientific dating (specifically radiocarbon dating) will be developed in conjunction with English Heritage and the CAO.

The resulting report will be based on English Heritage's Management of Archaeological Projects. It is likely to comprise the following sections:

- Introduction- planning and project background, site location etc
- Original Aims and Objectives of the Investigation
- Provisional Summary of Results- an integrated text (combining structural, artefactual and ecofactual) divided by chronological period
- Data Quantification- divided by data type (structural, artefactual and ecofactual)
- Potential of the Data to Address the Original and New Research Objectives- honest discussion linked to the information presented in preceding sections
- Updated Project Design- revised research objectives, timetable, description of analysis, publication and archiving
- Detailed Method Statements will be presented in appendices

4.2 *Analysis (Task 19-36)*

To ensure there is no loss of momentum/programming of the project it is proposed the analysis stage of the project takes place directly after the completion of the UPD. It will therefore be necessary to obtain the agreement of the CAO at the earliest opportunity. To ensure a consistent approach analysis will be undertaken on Phase 1 and 2 concurrently. The UPD will identify a number of key stages, with realistic timescales.

4.3 *Academic publication*

The UPD will contain a publication proposal designed to encompass the results from all stages of investigations at the Marsh Leys development. It is intended that all post-excavation analysis will lead to a single monograph



volume, either in the Bedfordshire Archaeological Council's or *BCAS* monograph series. The published report is likely to comprise two parts. Part 1 will provide a synthesis of the development of the landscape, comparing the Marsh Leys evidence to the wider picture provided by the topographic unit of the Ouse valley and beyond. It is this part which will discuss the research objectives. Part 2 will be the technical section of the report, containing detailed descriptions of farmsteads, artefacts, environmental data etc., on which Part 1 is based.

4.4 Dissemination

Analysis and publication is a lengthy process but does not preclude the dissemination of preliminary information to the general public or archaeological profession.

4.4.1 General public

Although not costed into this project, BCAS is committed to the wider dissemination of the fieldwork results. Given the location of the development on the outskirts (gateway) of Bedford, improvements to the adjacent road system, and the known level of public interest in Roman remains, the investigation provides an excellent opportunity for good publicity. However, the timing of any press releases will require careful consideration due to the sensitive nature of the development and the threat posed by treasure hunters/vandals on archaeological sites. The potential benefits of good publicity to the *Client* and Developer as a means of "free" advertising cannot be under estimated.

In terms of wider dissemination of the results of the project, St Mary's Archaeology Centre is used for displays and presentations, to which the general public have access on a daily basis. In addition, temporary exhibitions are regularly set up at a number of venues within Bedfordshire, including libraries, schools, council offices and the recent river festival. The results of the project will also be incorporated into the on-going educational work, carried out in local schools by members of staff from St Mary's Archaeology Centre. This work is carried out as part of BCAS' service to the public and does not constitute an extra cost on the development.

4.4.2 Archaeological profession

Interim summaries of the work will appear in *Britannia* (the journal of the Roman Society) and the *Council for British Archaeology Region 9 Annual Report*.

4.5 Archive deposition

On publication of the final report the archive of materials (subject to the landowner's permission) and accompanying records will be deposited with Bedford Museum.



5. RESOURCES

5.1 Company profile

Bedfordshire County Archaeology Service (BCAS) was established in 1974. In keeping with its commitment to the maintenance of the highest standards of professional practice, it has been a Registered Organisation with the Institute of Field Archaeologists since August 1997. BCAS offers a comprehensive service to local and national government, statutory bodies, and the private sector.

BCAS staff combine expertise in archaeology with project management skills to provide a high quality service for all our stakeholders, including both clients and the public. BCAS is committed to:

- delivering a first class service to clients;
- developing the highest professional standards;
- disseminating rapidly the results of archaeological projects.

5.2 Relevant experience

BCAS undertook the archaeological evaluation of the entire development area and the open area investigations within Phase 1. It is hoped that members of the core project team will have worked on the evaluation and/or Phase 1 investigations. Alternatively they will have worked on sites of a similar period and type in the vicinity, for example Bedford Southern Bypass and Biddenham Loop. By ensuring this local expertise and familiarity with BCAS analytical procedures this will ensure that this project can be carried out in a thoroughly efficient and cost-effective fashion.

5.3 The BCAS project team

The team involved in the fieldwork stage is likely to comprise:

Init	Name	Job title	Responsibility
DS	Drew Shottliff MA MIFA	Project Manager	responsible for overall management, quality control, setting of research goals;
ML	Mike Luke BSc	Project Officer	responsible for the day-to-day management of the Project;
TW	Tony Walsh BA	Archaeological supervisor	responsible for day to day on site supervision of the project and checking of site records
IB	Ian Beswick	Archaeological supervisor	responsible for day to day on site supervision of the project and checking of site records
JW	Jackie Wells MA	Artefacts Officer	responsible for day to day processing and analysis of all artefacts
AT	To Be Confirmed	Archaeological technicians	investigation and recording of archaeological features/deposits, and processing of artefacts/ecofacts
JL	Joan Lightning BA	CAD technician	Digital capture of site data specifically drawings

Table 1: BCAS fieldwork stage project team

More detailed CVs of BCAS Team members are enclosed as Appendix 4. Staff in the following posts will also support the Project Team: Illustrator, Computing Officer and Administrative Officer/Assistant.



BCAS may need to recruit additional Archaeological Technicians and Supervisors, if required, to carry out this Project. BCAS uses a thorough recruitment procedure, including job descriptions, person specifications and references to ensure that only suitably qualified staff are employed. They will receive a comprehensive procedural and Health and Safety induction on commencement of employment.

5.4 Specialists

In compliance with rule 1.4 of the IFA's *Code of Conduct* all members of the project team are adequately qualified to undertake the tasks assigned to them. All sub-contractors used by BCAS are established and well respected in their respective fields of expertise. Each has a proven track record of providing quality services within set deadlines. *Pro forma* contracts are used to ensure work is correctly specified and delivered to time and budget. BCAS continually reviews the quality of work received from sub-contractors and continually seeks competitive quotes in order to avoid over-reliance on a single sub-contractor.

5.4.1 Archaeological specialists

The following specialists will be used on this Project as required.

Initials	Name	Organisation	Specialism
AB	Alex Bayliss	English Heritage	Scientific dating advisor
AMS	Anna Slowikowski M Phil	BCAS	Ceramic artefacts
GC	Dr Gill M Cruise	INDE	Pollen
HBD	Holly Duncan Mlitt	BCAS	Non-ceramic artefacts
JM	Jacqueline McKinley	Wessex Archaeology	Human remains
MLSS	Museum of London	MLSS	Artefact conservation
MM	Dr Mark Maltby	Univ. Bournemouth	Faunal remains
MR	Dr Mark A Robinson	Univ. Mus Oxford	Plant, insect and mollusc remains
PG	Dr Pete Guest	Capitol Archaeology	Coins
PM	Dr Pete Murphy	English Heritage	Environmental advisor
RMP	Dr Richard I Macphail	Institute of Archaeology	Soil micromorphology

Table 2: Archaeological specialist

5.4.2 Technical specialists

A surveyor from Mouchel Property Services will establish the site grid.

Bulk earthmoving is likely to be undertaken by Buckingham Plant, Callanans or Shenstones, who have provided similar services to BCAS in the past. HF Bull & Sons Ltd (BULL) will undertake small-scale earthmoving, including assistance in deep excavation. They have all provided similar services on BCAS projects for more than 15 years.

Maxion or Speedy Hire will supply on-site accommodation. It will comprise one anti-vandal unit for offices and a smaller secure tool store. Accom Ltd will supply one unisex portaloos.



6. PROGRAMME

6.1 Introduction

It is anticipated that on-site archaeological excavation and recording, including earthmoving will last for a maximum of 8 months (this includes a four-week allowance for slippage due to adverse weather). However, for reasons of efficiency/cost effectiveness BCAS will aim to complete fieldwork prior to this.

The provisional programme is as follows:

Date	Zone	Activity	Task no.
April 2001	B and C	agreement of Project Design, surveying and general site set up	1 and 39
May 2001	B	earthmoving	2.1
June-November*	B	archaeological investigation	2.2, 3 and 4
TBC**	D	earthwork survey	2.4
September/October***	C	design and approval from the CAO of the Zone C strategy	39
November/December	B and C	decommissioning approval from the CAO and hand-over of required area to developer	39
December	B and C	record checking and consolidation	6, 8, 7.1, 7.2
January-March 2002	All	assessment and UPD	9, 11, 16, 17 and 18

* Four week's slippage time for bad weather, unexpectedly complex archaeological remains or other avoidable occurrences should be anticipated

** The earthwork survey will be undertaken once all obstacles have been removed from the field

*** The strategy for Zone C is dependent on the provisional results from Zone B

Table 3: The project programme (up to completion of UPD)

6.2 Task breakdown

The task breakdown presented overleaf includes task numbers used in BCAS Time Recording System. Team members initials are presented in tables Table 1 and 2).



Task	Description	Staff	Qty	Days
1	Site set up			
	Preparation and agreement of Project Design	ML/DS	1	5
	Co-ordination of site set up and preliminary works	ML/AS	1	3
	Setting out and site grid	AS/SUR	2	2
	Portacabin, portaloos	MAX, ACCOM	1	100
2.1	Supervision of machining			
	Machining (hymac, moxeys)	CALLENS	1	30
	Supervision	AS	1	10
	Additional machining during fieldwork (1 day)	BULL	1	2
2.2	Excavation and recording			
	Fieldwork	AS	2	100
		AT	8	100
	Specialist consultancy	VAR	3	2
	Project Officer management (on site)	ML	1	10
2.4	Earthwork survey	AS/SUR	2	4
3	Environmental sample processing (inc. CAT)			
		AT	1	10
4	Finds processing (inc. CAT)			
		JW/AT	1	20
5	Non-ceramic artefacts (Broad Term ID)			
		JW	1	3
6	X-rays and emergency conservation			
		MLSS		
7.1	Digitisation and tagging of site drawings			
		JL	1	10
7.2	Inputting of records into database (inc. CAT)			
		AS	1	5
8	Context record checking and inputting			
		AS/AT	1	10
9	Structural assessment			
		AS	1	5
		ML	1	1
11	In-house Narrow Term Identification (preliminary)			
		JW/HBD	1	3
12	External Narrow Term Identification (preliminary)			
		TBC	1	3
16	Environmental assessment (external)			
		VARIOUS	4	10
18	Assessment and UPD			
		HBD/AMS/DS	1	2
		AS/JW	2	10
		ML	1	6
37	Archive preparation			
		HBD	1	2
		AT	1	2
39	Project Management			
		HBD/AMS/DS	1	1
		ML	1	15

Table 4: Task list for archaeological investigation



7. APPENDIX 1: DETAILED EXCAVATION METHOD STATEMENT

7.1 Standards

Excavation will be undertaken in line with the *Brief*, this WSARM, the IFA *Standard and Guidance for Excavation*. The details of the recording system are contained in the BCAS *Procedures Manual* and these are not repeated here. Specifically it will involve the following:

7.2 Survey grid

The location of Areas A and C will be marked out in advance of machine stripping. Once a sufficient area has been cleared a site grid will be established at 20m intervals based on the OS grid.

7.3 Mechanical removal of topsoil

- 1 In Zone B topsoil will be removed either by a box scraper or D7 bulldozer. A 360° tracked excavator, fitted with a ditching bucket operating under constant archaeological supervision, will then remove the subsoil. Machining will cease when the upper surfaces of archaeological features/deposits are encountered.
- 2 A north to south earthmoving sequence will be undertaken in Zone B (and not subsequently driven over.
- 3 The resultant spoil will be stockpiled outside the areas of archaeological significance.
- 4 Where possible topsoil and subsoil will be stockpiled separately.
- 5 Transect excavation (4m wide) in Area C will be undertaken by a 360° tracked excavator, fitted with a ditching bucket operating under constant archaeological supervision. Topsoil and subsoil will be stored on either side of the transects.
- 6 No backfilling will be undertaken by BCAS within either Area B and C.

7.4 Hand excavation and recording

- 1 All recording number sequences will continue those used during the evaluation stage of the project.
- 2 Archaeological features identified during machining stripping will be marked on the ground by spray paint.
- 3 Pre-excavation planning will commence at the earliest opportunity.
- 4 The pre-excavation plans will be digitised and used as the basis for the excavation strategy.
- 5 Adhering to the strategy but for project momentum and management reasons investigations will proceed from west to east within planning area.
- 6 The excavation of linear features will be standardised in 1m segments. Excavation will be concentrated where ditches are associated with domestic activity (up to 20% by length), with a smaller quantity of excavation where ditches represent field boundaries (up to 5% by length). Additional or extensions to segments may be undertaken in the event of significant artefactual/ecofactual material being discovered or adjacent to contemporary activity.
- 7 All isolated pits and postholes will be half sectioned.
- 8 Pits and postholes occurring in groups will be sampled, with the results discussed with the CAO to determine if additional features require hand excavation. Where the understanding of a pit or posthole would be benefited by full excavation, this will be undertaken.
- 9 Deep features such as water pits and wells will be investigated to their base.



Where this requires the appropriate use of a machine a strategy will be submitted to the CAO for this in advance.

- 10 Burials and hearth type features will be fully excavated, with the use of cumulative sections as appropriate. On the discovery of human remains, BCAS will liaise with the Home Office and acquire the appropriate Licence.
- 11 The extent of surfaces will be determined prior to partial excavation.
- 12 A sample of postholes will be excavated.

7.5 Artefacts and ecofacts

- 1 Spoil will be scanned for artefacts by both eye and metal detector.
- 2 Artefacts recovered from spoil heaps will be assigned a 'unstratified' context number.
- 3 Artefact processing will be undertaken concurrently with the investigation.
- 4 Artefact information will be available during fieldwork and monitoring meetings.
- 5 A programme of environmental sampling will be carried out in accordance with Murphy and Wiltshire (1994) *A Guide to Sampling Archaeological Deposits for Environmental Analysis*.
- 6 Ten to twenty litre samples will be taken, as appropriate (see 3.8). With the exception of waterlogged deposits, samples will be disaggregated in water, and the charred material (flot) collected on a 500 μ mesh. All flots will be dried, catalogued and curated. The 5.6mm residue fraction will be sorted for artefacts and discarded. Other residue fractions (1mm and 2mm) will be dried, catalogued and curated.
- 7 Processing will be undertaken at St Mary's Church Archaeology Centre during fieldwork so that the results can help to inform on-site strategies. Specialist advice will be sought as necessary.

7.6 Feedback into and adjustment of excavation strategy

1. During the processing of artefacts and ecofacts basic information will be recorded in the Context Assemblage Table (CAT), part of the standard site database.
2. Data is only input into the CAT once all hand excavation of a particular context is complete. This prevents only partial, and therefore potentially misleading, information being fed back to the excavation. Basic contextual information is required to be input to enable the CAT to operate (context number, type and processual, feature number and type, and co-ordinates).
3. The Artefact Officer will record and input basic quantification for the main types of artefacts, for example pottery, Ceramic Building Material, fired clay etc. An overall spotdate is also assigned for the context based on both the pottery spotdate and other (possibly later) material (for example post-medieval tile). Registered Artefacts are recorded in a separate table with the site database.
4. The Artefact Officer will input basic quantification for hand collected ecofacts, for example animal bone, shell etc into the CAT. Ecofact sample processing will be undertaken during fieldwork to ensure feedback. Information from samples is input into the Ecofact table, also within the site database.
5. The data in the CAT can be viewed in two main ways:
 - 5a **Lists-** as a database table the information in the CAT can be displayed in a variety of formats. The most common is simply a list in context order detailing the variety of artefacts that were recovered.
 - 5b **Spatially-** any of the data in the CAT can be plotted with Gsys GIS program. These plots can be overlain with a pre-excavation plan or any other digital information available for the site. At a very basic level the plots will indicate which features have produced what material and broadly how much. Spatially significant distributions of material may be observable, for example pottery of a particular date.



8. APPENDIX 2: DETAILED EARTHWORK SURVEY METHOD STATEMENT

8.1 Survey grid

A grid will be established over the area to be surveyed at 20m intervals based on the national OS grid (**Task 1**). This will facilitate correlation with other data sets including the open area excavations. During the laying out of this grid an initial inspection will be undertaken of the surviving earthworks.

8.2 Plan and level earthworks

The established grid will be used to produce a plan of the earthworks, which will include the tops and bottoms of features. The position of the perimeter boundary to the site and any obstacles will be marked on the plan. This plan will be at a scale of not more than 1:1000 and will be supplemented by larger scale plans as appropriate. Levels related to the OD will be taken on all earthworks.

8.3 Profile the earthworks

All significant earthworks will have profiles produced for them. These will be positioned to give maximum coverage of the development area and will be tied in to the OD.

8.4 Photographic record

Where appropriate, a digital photographic record will be made of the significant earthworks.

8.5 Description and interpretation

A description of each earthwork will be made including possible interpretation.

8.6 Presentation of results

The results of the earthwork survey will be included in the assessment report.





9. APPENDIX 3: POST-FIELDWORK ANALYSIS AND REPORTING

9.1 Record checking and consolidation

- 1 During or immediately after fieldwork all records will be checked and cross-referenced to ensure they are internally consistent.
- 2 All data acquired during evaluation and excavation including cropmark and geophysical evidence will be integrated.
- 3 Recording, cleaning and conservation of finds will be undertaken adhering to the IFA *Guidelines for Finds Work*.
- 4 All environmental samples will be processed and assessed as appropriate.
- 5 Site drawings will digitised and geo-referenced.
- 6 Contextual, artefactual and ecofactual data will be entered onto a networked Access database.

9.2 Assessment of results

- 1 A provisional chronological sequence will be established based on the context/feature spotdating undertaken during fieldwork.
- 2 This will be discussed in terms of provisional chronological development with any major changes in layout or spatial organisation highlighted.
- 3 The structural, artefactual and ecofactual data will be assessed (by internal and external specialists) and the results presented within quantifiable groups of information. The potential of each will be discussed, linked to the provisional chronological sequence both in terms of the original project objectives and any new ones that arose during fieldwork.
- 4 Recommendation for further analysis will be presented. Any data, which is deemed insignificant within the terms of the project objectives, will not progress beyond the assessment stage.

9.3 Updated project design

- 1 The assessment will determine the potential of the data to address the project objectives and therefore the nature and level of analysis required.
- 2 A detailed method statement will be presented, linked to the BCAS Time Recording Task numbers.
- 3 Data analysis will proceed up until the completion of the specialist texts and site narrative tasks (up to Tasks 24). A decision will then be taken whether to wait to integrate data from future developments.

9.4 Analysis, publication and archiving

- 1 The UPD will present the method statement that will result in the publication and analysis of results.
- 2 Once publication production is underway the archive will be transferred to Bedford Museum. It is only at this stage that the project can be deemed complete.





10. APPENDIX 4: PROJECT STAFF CVS

Drew Shotliff: Project Manager

Technical qualifications

MA Archaeological Practice, University of Birmingham, 1985

BA (Hons) Modern History, Mansfield College, Oxford, 1980

Member of the Institute of Field Archaeologists

Core skills

Archaeological project management through design and fieldwork to publication. Post-excavation analysis of large urban and rural sites. Development of fieldwork and post-fieldwork analysis methodologies using database, AutoCad and GIS applications. Research interests centre on Saxon and medieval rural settlement. Member of the Service Management Team, with specific responsibility for project programming and finance. Member of the Society of Landscape Studies.

Employment History

1991 to present, Project Manager, BCAS

1991, Consultant to ODA/British Council, Samanalawewa Project, Sri Lanka

1990-1991, Project Officer, Cambridgeshire County Council

1987-1990, Senior Archaeologist, Museum of London

1982-1987, various archaeological employment including, English Heritage, University of Birmingham (Sutton Hoo), and Ecuador, Cyprus and France

Mike Luke: Project Officer

Technical qualifications

BSc (Hons) Archaeology, University of Wales (Cardiff), 1986

Core skills

The management of multiple fieldwork projects. He directed the four stages of evaluation at Marsh Leys and archaeological investigations in the vicinity including the route of the Bedford Western Bypass and the extensive excavations on the Biddenham Loop. Independent of BCAS he has produced an article on the Roman roadside settlement at Alfoldean, West Sussex (due for publication latter this year) and is currently working on an article for *Britannia* (the journal of the Roman Society). He has published the results of excavations on Iron Age/Roman settlement at Flitwick in *Bedfordshire Archaeology* and as a member of the Roman Society regular contributes to the *Sites Explored* sections of *Britannia*.

Employment History. Since 1995 he has worked as a BCAS Project Officer. Prior to this he was employed as a supervisor for BCAS, Cleveland County Council and CADW (Historic Wales).

Antony Walsh: Archaeological Supervisor

Technical qualifications

BA (Hons) History and Landscape Archaeology, University of East Anglia, 1985

Core Skills

Field supervision of a wide range of archaeological projects. Structural analysis and report preparation. Specialist interests include the medieval and post-medieval periods, landscape archaeology, field monuments and standing buildings (particularly churches). Member of the Society for Post-Medieval Archaeology.

Employment History

Professional field archaeologist since 1988, working mainly in Yorkshire, Humberside and Bedfordshire.



Anna Slowikowski: Artefacts Manager (ceramics)

Technical qualifications

M Phil, University of Leeds, 1991

PGCE, Sheffield City Polytechnic, 1977

BA (Hons) Prehistory/Archaeology and Ancient History, Univ. of Sheffield, 1976

Member of the Institute of Field Archaeologists

Member of the Association of Archaeological Illustrators and Surveyors

Core skills

Management and analysis of ceramic artefacts. Specialist knowledge of medieval pottery but with wide experience of Iron Age and Roman ceramics. Responsible for the establishment and maintenance of a regional Ceramic Type Series and provides education and outreach services. Member of the BCAS Service Management Team. Active member of both national and regional specialist ceramic study groups

Employment History

An artefact specialist since 1977, she has published extensively in specialist and county journals and monographs. She has worked in Nottingham and West Yorkshire and abroad in Poland. Past Chair of the Association of Archaeological Illustrators and Surveyors, former committee member of the local group of the Council for British Archaeology, and Council member of the Medieval Pottery Research Group, sitting on their Minimum Standards Working Party.

Holly Duncan: Artefacts Manager (non-ceramics)

Technical qualifications

M Litt, Department of Archaeology, University of Glasgow, 1982

BA (Hons) Anthropology, University of Pennsylvania, Philadelphia, 1976

Member of the Institute of Field Archaeologists

Core skills

Management and analysis of non-ceramic artefacts, with specialist knowledge of the post-Roman and medieval periods and substantial experience in the prehistoric and Roman periods. Responsible for the Bedfordshire Artefact Typology (BAT) in conjunction with the two registered museums in the county. Wide network of specialist researchers and conservation specialists.

Employment History

An artefact specialist since 1981, her work has been published in both Scottish and English archaeological journals, and she has conducted research in the United States. She is a member of both the Roman Finds Group; former committee member of the IFA Finds Group, having sat on their Standards and Guidance for Finds Work Working Party.

Jackie Wells: Artefact Officer

Technical qualifications

MA Post-Excavation Studies, University of Leicester, 1990

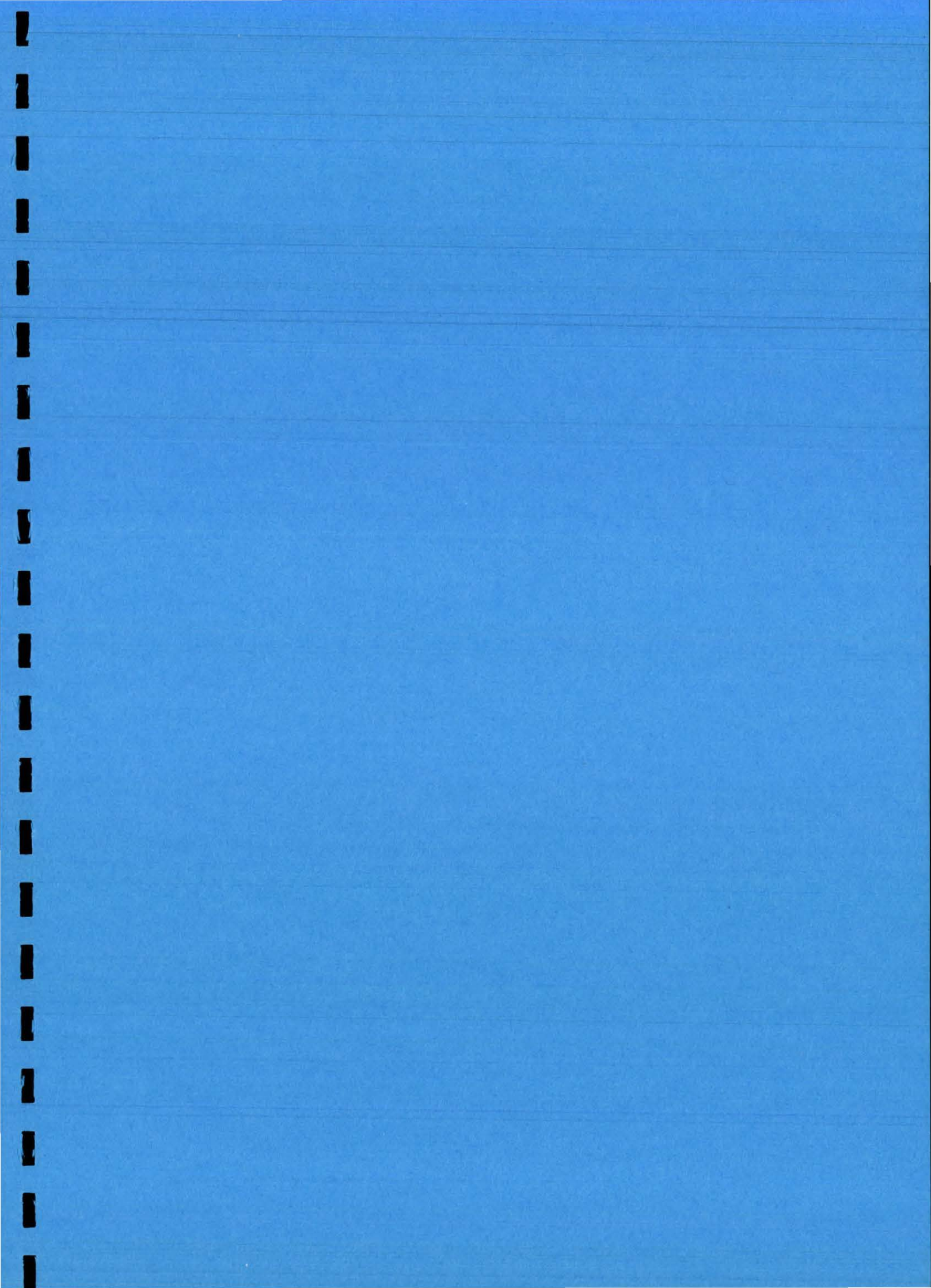
BA (Hons) Archaeology and History, University of Nottingham, 1988

Core skills

Processing and analysis of ceramic and non-ceramic artefact types. Computer-based artefacts analysis. Establishment and maintenance of County Ceramic Type Series. Jackie has written the ceramic and non-ceramic sections for articles published in *Bedfordshire Archaeology*, the Bedfordshire Monograph Series and over 50 BCAS evaluation reports,

Employment History

Over 8 years postgraduate experience in processing and analysing artefactual assemblages, gained mainly through work in the Peak District (predominantly prehistoric sites), South Wales (Caerwent Roman town) and Bedfordshire (including numerous Roman sites). Independent of BCAS she has analysed the artefacts from the Roman roadside settlement at Alfoldean, West Sussex (due for publication latter year). She is a member of The Study Group for Romano-British Pottery and Roman Finds Group.





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