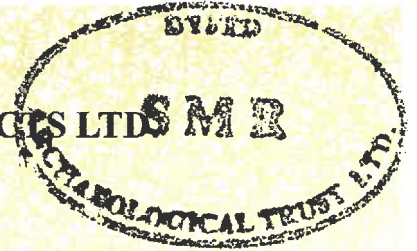
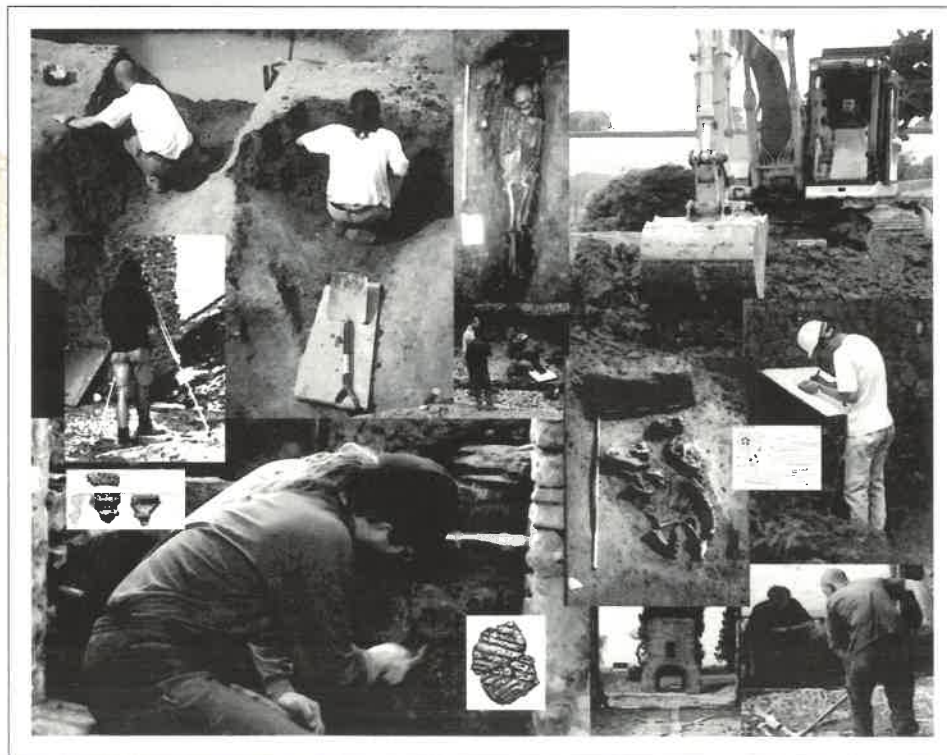


CAMBRIAN ARCHAEOLOGICAL PROJECTS LTD



Middleton Hall, Carmarthenshire

Archaeological Watching Brief



By
Helen Milne, MA



CAP Report No. 170

ARCHAEOLOGICAL WATCHING BRIEF

**Middleton Hall,
Carmarthenshire**

BY *Helen Milne, MA*

Prepared for:
**Middleton Hall
Carmarthenshire**

CAP Report No: 170

Date: February 2001



**Cambrian Archaeological Projects Ltd
Waen Old Farmhouse
Llidiartywaen
Llanidloes
Powys SY18 6JT**

**Telephone/Fax: 01686 413857
e-mail: cambarch@ukf.net**

Contents

i) LIST OF ILLUSTRATIONS

ii) IFA STANDARDS AND GUIDANCE

NON TECHNICAL SUMMARY	Page 01
1. INTRODUCTION	Page 01
2 AIMS AND OBJECTIVES	Page 02
3. METHODOLOGY	Page 02
4. RESULTS OF THE WATCHING BRIEF	Page 03
5. CONCLUSIONS	Page 04
6. ACKNOWLEDGEMENTS	Page 05
7. REFERENCES AND BIBLIOGRAPHY	Page 06

APPENDIX I: Archive Cover Sheet

APPENDIX II: Contexts Register

Copyright Notice:

Cambrian Archaeological Projects Ltd. retain copyright of this report under the Copyright, Designs and Patents Act, 1988.

The Ordnance Survey has granted Cambrian Archaeological Projects Ltd a Copyright Licence (No. AL 52163A0001) to reproduce map information; Copyright remains otherwise with the Ordnance Survey.

i) List of Illustrations

Figures

Fig 01: General Location Map

Fig 02: Site Location Plan

Fig 03: Area 1-showing line of identified paths

Fig 04: Part of Area 2 showing location of dumped deposit

Fig 05: Part of Area 3 where path remains were discovered

Plates

Plate 01: Example of pathway in Area 1 (W. facing section)

Plate 02: Example of pathway in Area 1 (S. facing section)

Plate 03: Working shots of topographic survey (Area 2)

ii) IFA Standards and Guidance

THE INSTITUTE OF FIELD ARCHAEOLOGISTS (IFA)

Standard and Guidance for an archaeological watching brief

The Standard

An archaeological watching brief will record the archaeological resource during development within a specified area using appropriate methods and practices. These will satisfy the stated aims of the project, and comply with the *Code of conduct, Code of approved practice for the regulation of contractual arrangements in field archaeology*, and other relevant by-laws of the IFA.

Definition of an archaeological watching brief

The definition of an archaeological watching brief is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.

This definition and *Standard* do not cover chance observations, which should lead to an appropriate archaeological project being designed and implemented, nor do they apply to monitoring for preservation of remains *in situ*.

Purpose of a watching brief

The purpose of a watching brief is:

- ◆ to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works.
- ◆ to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.

A watching brief is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

The objective of a watching brief is to establish and make available information about the archaeological resource existing on the site.

The Standard and Guidance for an archaeological watching brief was formally adopted as IFA approved practice at the Annual General Meeting of the Institute held on 14th October 1994.

Non Technical Summary

The following report is the result of work undertaken by Cambrian Archaeological Projects Ltd. on behalf of The National Botanic Garden of Wales as part of a condition attached to development of several areas within the National Botanic Gardens at Middleton Hall, Carmarthenshire. This watching brief report covers one stage of archaeological investigation at Middleton Hall and Park, and should be considered in conjunction with other CAP Reports (No's 32, 38, 112, 114, 149) produced for the site. Archaeological constraints were put in place on ground-works within the vicinity of Middleton Hall due to the likelihood of surviving features (such as roads and pathways) associated with the historic garden. During desk based assessment carried out by ACA-HM (Archaeoleg Cambria Archaeology - Heritage Management), possible evidence of ridge and furrow cultivation was identified on sloping ground to the SW of Graig Farm.

1 Introduction

As a result of findings from previous archaeological investigations by Cambrian Archaeological projects and Archaeoleg Cambria Archaeology, (CAP Report No.s 32, 38, 112, 114, 149, ACA Project Report No. 31018) ACA-HM advised the National Botanic Garden that an archaeological assessment should be carried out prior to and during ground works.

1.1 Planning Background

Cambrian Archaeological Projects was invited by the National Botanic Garden of Wales to act as their agents for archaeological supervision during ground works. In February 2001 a total station contour survey and archaeological watching brief were undertaken during the ground clearance for the proposed development of the new science block, audio-visual theatre, and access routes leading to these.

1.2 Site Description

Three main areas required archaeological supervision during soil disturbance in advance of development (see fig 2). Firstly *Area 1* to the south-west of the stable block courtyard, where development of the 'Audio Visual Theatre' is being carried out. Secondly, the 'Science Block' development to the south-west of Graig Farm (*Area 2*), and thirdly the new road access for this development which runs along the north-west boundary of the park (*Area 3*).

1.3 Soil and Geology

The solid geology beneath Middleton Park comprises of Devonian Old Red Sandstone of the Downton series (Raglan Marl Group), steeply inclined to the south. An unconformity runs SW-NE across the north west area of the site. Ordovician shales of the Arenig and Llanvirn series, follow a similar dip, rising from beneath the sandstones to the north west.

The drift geology comprises glacial boulder clays which overlie both the sandstones and the shales through most of the park. Sandstone outcrops are found in the west of the park, and shale outcrops in the north west corner.



Fig 01: General Location Map

1.4 Archaeological Background

The National Botanic Garden of Wales occupies the parkland of the Middleton Hall estate, a designed landscape of considerable historic significance and archaeological potential. The paths and driveways associated with the garden and parkland are marked on the 1st. edition OS of 1886. An area of possible ridge and furrow cultivation was identified by ACA from an aerial photograph of land to the south-west of Graig Farm.

2 Aims and Objectives

In accordance with the IFA's *Standards and Guidance* the primary objective of the watching brief was to ensure that any previously unrecorded archaeological deposits, and features exposed during the ground disturbance works and subsequent development of the site were adequately recorded and interpreted.

3 Methodology

- A topographical grid survey was undertaken, covering Area 2, in order to locate a suspected ridge and furrow cultivation system.
- Removal of the topsoil was undertaken by machine using a toothless ditching bucket.
- The archaeological contractor then carried out a walking visual assessment of the area for any possible archaeological remains and features.
- Limited cleaning and recording of any significant remains was then undertaken by the archaeological contractor.

Recording of the site was in three formats:

i) *Photographic record*

Photographs were taken in 35mm colour slide, black and white print and digital formats.

ii) *Drawn record*

Site plans were produced at a scale of 1:500. Finished drawings have been related to Ordnance Survey datum and published boundaries where appropriate.

iii) *Written record*

Written text was produced using a continuous numbering sequence for all contexts, and identified features tied in to the OS survey grid where applicable.

All works were undertaken in accordance with both the IFA's *Standards and guidance: for an archaeological watching brief* and current Health and Safety legislation.

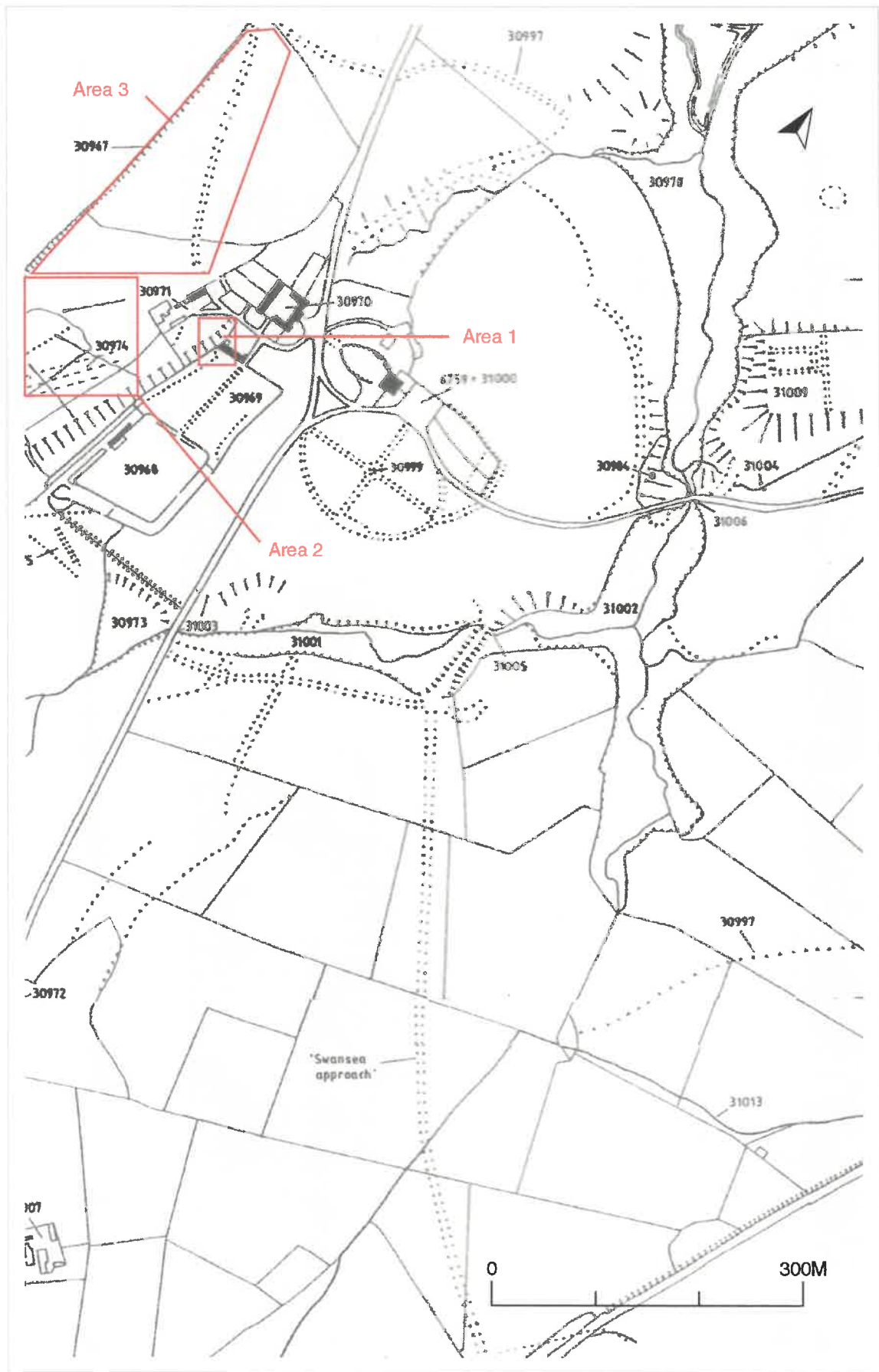


Fig 02: Site Location Plan

4 Results of the Watching Brief

Area 1: Audio Visual Theatre (Fig 3 & plates 1 & 2)

Several areas of pathway made up of Old Red Sandstone chippings (02) were revealed in section in the cut for the circular part of the theatre (fig 3). This feature occurred at an average depth of 0.2m below the most recent ground surface (plates 01 & 02). The average depth of deposit (02) was 0.25m. An area of path was also revealed in plan on the access lane running up to the Audio Visual Theatre development, at the north-west end of the Exhibition Barn on Millenium Square (fig 3).

Area 2: Science Block (fig 4 & plate 3)

Due to the identification of a possible ridge and furrow cultivation system in this area, a topographic survey was carried out prior to the start of ground works (see methodology). The results of this survey did not demonstrate any discernible features on the ground surface within the area covered.

Area 3: Access Route to Science Block (Fig 5)

In this area a crushed Red Sandstone pathway was visible in section on both the north-west and south-east sides of the access route development. This was composed of an upper layer of crushed Old Red Sandstone (08), which in turn overlay a deposit of crushed shale make-up (09).

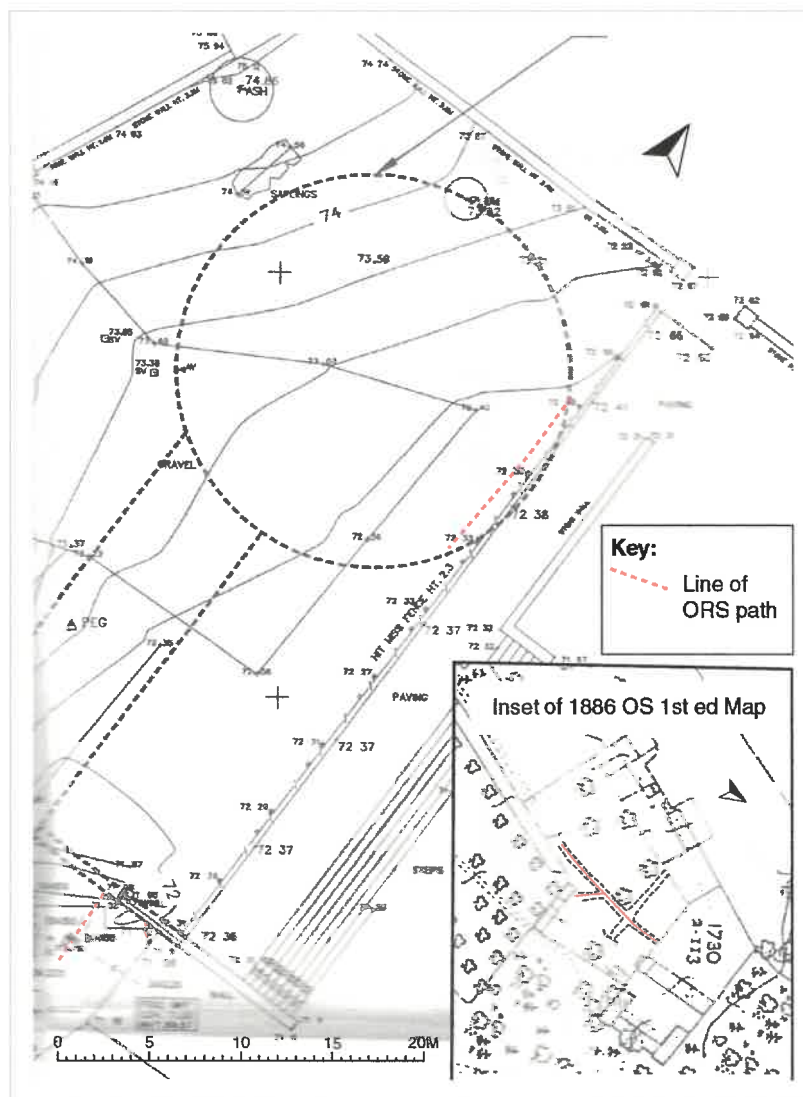


Fig 03: Area1- Showing line of identified paths, and 1886 inset of path layout

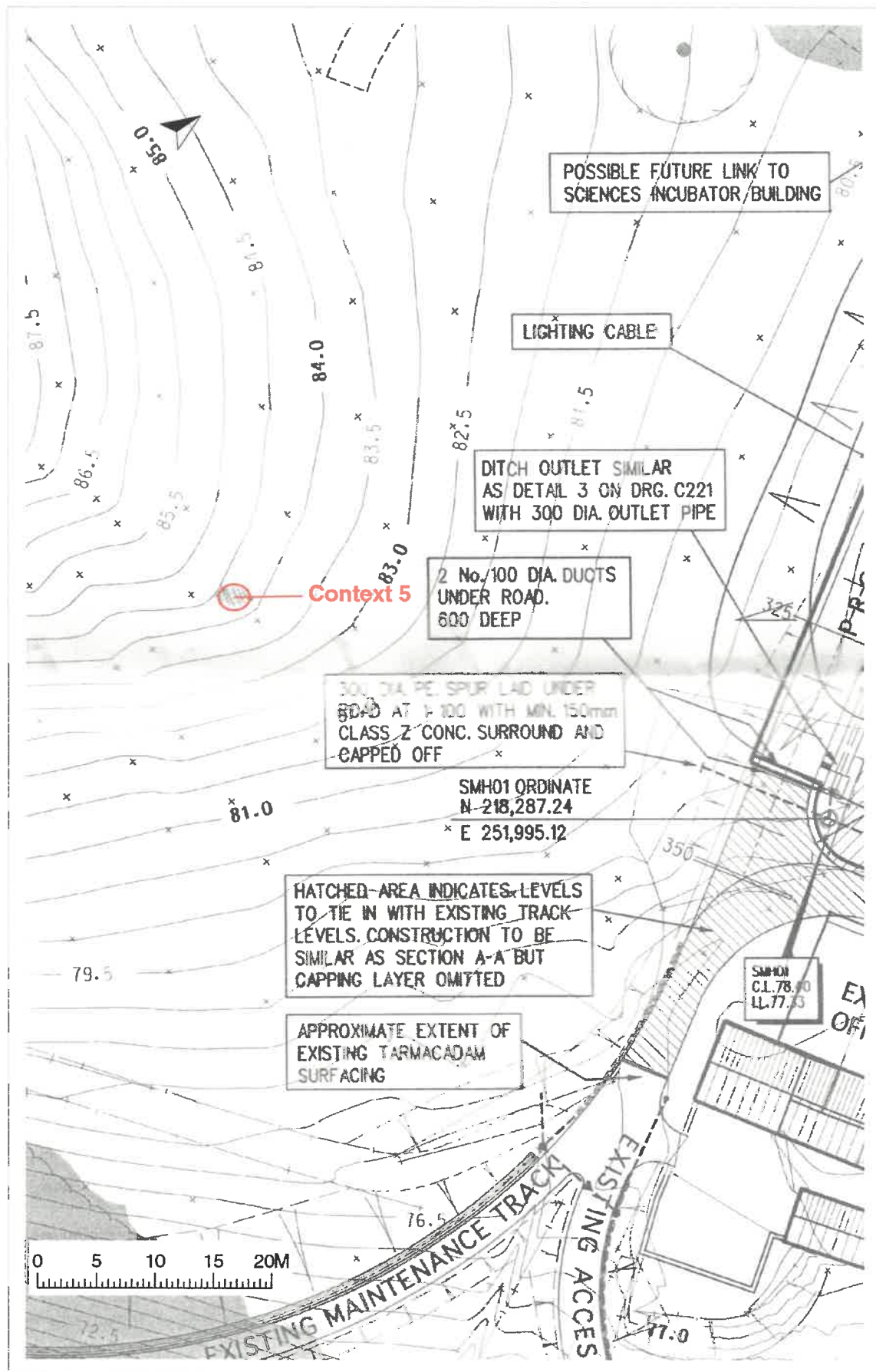


Fig 04: Part of Area 2 showing location of dumped deposit

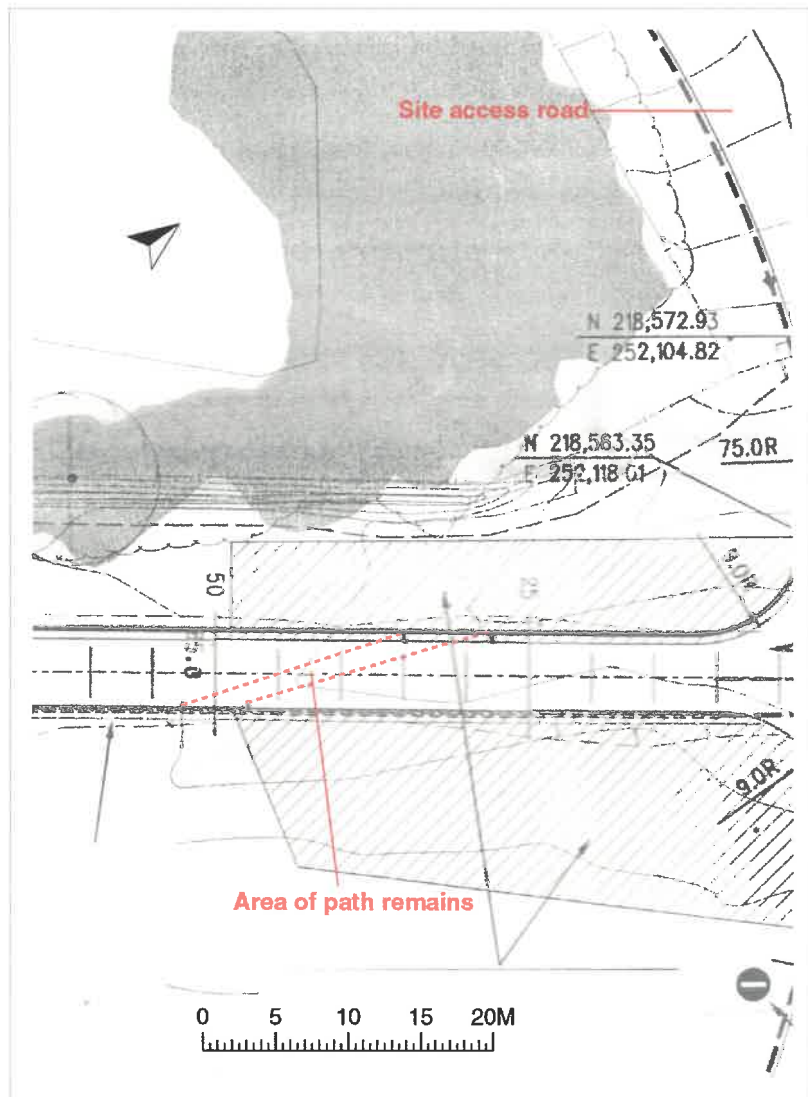


Fig 05: Part of Area 3 where path remains were discovered

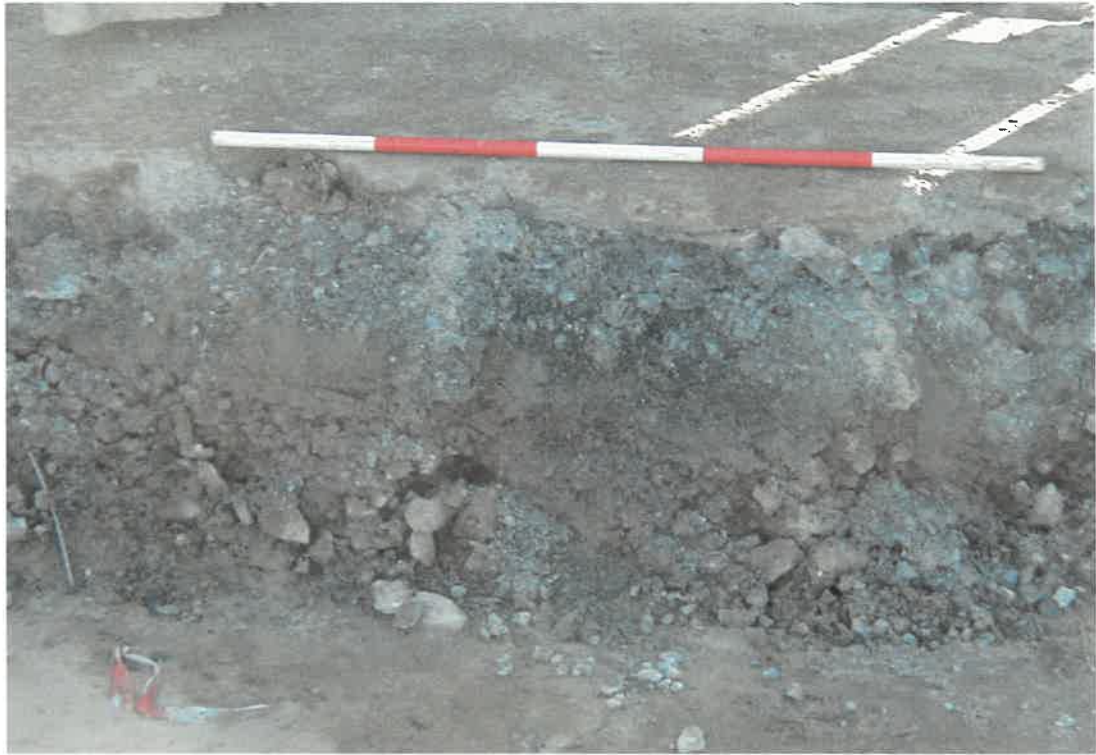


Plate 01: Example of pathway in Area 1 (W. facing section)



Plate 02: Example of pathway in Area 1 (S. facing section)



Plate 03: Working shots of topographic survey (Area 2)

5 Conclusions

5.1 *Area 1: Audio Visual Theatre*

The Old Red Sandstone path revealed by excavations in this area would appear to correspond with that marked on the 1st. edition OS map of Middleton Hall. No trace was identified of the other path visible on this map which meets it at right angles from the direction of Graig Farm.

5.2 *Area 2: Science Block*

The possible existence of ridge and furrow cultivation in this area was not confirmed either by the initial topographic survey, or during supervision of soil removal. The shallow soil coverage over the bedrock might suggest that this was a marginal area for cultivation, or that it has suffered erosion. Increased grazing by livestock could have resulted in erosion in the period since the RAF photographic sortie of 1946.

The conditions for the topographic survey were not ideal as the entire area was covered by heath grassland, whose pronounced clumps and tussocks could have masked any ephemeral variations indicative of ridge and furrow cultivation.

It must therefore be concluded that the only record of the possible ridge and furrow system is aerial photographic.

5.3 *Area 3: Access route to Science Block*

The crushed Red Sandstone pathway located in this area appeared to be a branch of the original driveway. This route may date from the late 19th century as it is plotted on the ACA-HM archaeological resource map of Middleton Park, but does not appear on the 1886 1st ed OS map.

6 Acknowledgements

Thanks to Kevin Blockley for his help and advice during the compilation of this report.
Thanks to Phil Evans for help and advice.

7 References and Bibliography

7.1 Published Sources

British Geological Service, 1979: *Geological Survey Ten Mile Map: South Sheet*. BGS.

Soil Survey of England and Wales, 1983: *Soils of England and Wales: Sheet 2 Wales*. SSEW.

7.2 Unpublished Sources

Ludlow, N.D. Sept 1995: *Middleton Hall, Initial assessment of the archaeological implications of the proposed botanic gardens*. Parts 1 & 2.

7.3 Map Sources

- Copy of part of the Ordnance Survey, 1:2500 First Edition, Carmarthenshire. Sheet XL. 11
- Middleton Park: the archaeological resource (ACA-HM).
- National Botanic Garden of Wales: Phase 3. 1:500-Nursery Area / Science Centre access route site layout. (Anthony Hunt Associates Ltd.)
- National Botanic Garden of Wales, Audio Visual Theatre site survey. 1:200 (Austin – Smith: Lord)

7.4 Photographic Sources

RAF 106G/UK/1400/3274,1946



APPENDIX I: **Archive Cover Sheet**

ARCHIVE COVER SHEET

MIDDLETON HALL, CARMARTHENSHIRE (MH/01/WB)

Site Name:	NBGW, Middleton Hall, Carmarthenshire
Site Code:	MH/01/WB
PRN:	31018
NPRN :	N/A
SAM:	N/A
Other Ref No:	CAP Report Nos: 12, 32, 38, 112, 114, 149.
NGR:	SS 520 182
Site Type:	Historic Garden
Project Type:	Archaeological Watching Brief
Project Officer:	Helen Milne
Project Dates:	February 2001
Categories Present:	N/A
Location of Original Archive:	N/A
Location of duplicate Archives:	N/A
Number of Finds Boxes:	0
Location of Finds:	N/A
Museum Reference:	Not assigned
Copyright:	CAP Ltd
Restrictions to access:	None



APPENDIX II: **Context Register**

SUMMARY OF CONTEXTS

MIDDLETON HALL, CARMARTHENSHIRE (MH/01/WB)

CONTEXTS

- 01 Overburden
- 02 Crushed Red Sandstone (Path)
- 03 Natural Yellow Brown clay
- 04 Topsoil
- 05 Dumped deposit
- 06 Shale Bedrock
- 07 Topsoil
- 08 Crushed Red Sandstone pathway (same as 2?)
- 09 Crushed grey shale pathway makeup material