

June 1997

VALE ROYAL ABBEY CHESHIRE

SCHEDULED AREA

Drain Excavation Report

Vale Royal Abbey Cheshire

Drain Excavation Report

Checked by Project Manager.		
	Date	
Passed for submission to client.		
	Date	

© Lancaster University Archaeological Unit Storey Institute Meeting House Lane Lancaster LA1 1TH

June 1997

CONTENTS

Acknowledgements		
Executive Sum	ımary	3
1. Introduction	1	4
	ct Background	
•	graphical and Historical Background	
2. Methodolog	у	6
	ct Design	
2.2 Evalu	nation Methodology	6
	h and Safety	
2.4 Archi	ive	7
3. Evaluation l	Results	8
3.1 Trench 1		8
3.2 Trend	ch 2	8
3.3 Trend	ch 3	8
3.4 Trend	ch 4	9
3.5 The F	Finds	9
4. Discussion		10
5. Archaeologi	cal Impact	11
6. Bibliograph	y	12
Annondiv 1		12
Project B		13
Annondiv 2		1.4
Project D		17
Annondiv 3		19
Context I		10
Annendiy 4		19
Finds Car		1)
Annendiy 5		21
	ed Monument Consent	······································
Illustrations		21
	Site Location Map	<u>2</u> 1
•	Trench location map	
_	Trench plans and Trench 1 Matrix	
	Trench Sections	

ACKNOWLEDGEMENTS

Lancaster University Archaeological Unit would like to thank Gail Falkingham and Adrian Tindall of Cheshire County Council, and Dr Jennifer Lewis of The University of Liverpool, for their advice and guidance in the course of the project. Thanks are particularly due to Ian Hudson of DHC Ltd for his invaluable support and also to Simon Burgess for his considerable co-operation during the trenching programme.

The trial trenching was undertaken by Mark Leah with the assistance of Graham Mottershead. The final report was written by Mark Leah with contributions by Christine Howard-Davis; the illustrations were prepared by John Westaway and Jane Robson. The report was edited by Jamie Quartermaine and Rachel Newman. The project was managed by Jamie Quartermaine.

EXECUTIVE SUMMARY

Over a four day period, during March 1997, the Lancaster University Archaeological Unit carried out excavations in advance of the laying of a new sewerage system at Vale Royal Abbey (SJ 6385 6985), Cheshire. The sewerage system is to be laid at the back of Great House, in the area of the former monastic cloisters, and is within the extent of a scheduled ancient monument. The work was undertaken on behalf of DHC Ltd and was completed in accordance with the conditions attached to the Scheduled Monument Consent, obtained prior to the commencement of refurbishment work at Vale Royal Great House. A total of four trenches was excavated, along the line of the proposed sewer pipes, between the existing house and the extant drainage system.

In all trenches massive recent disturbance was encountered, probably associated with the installation of an earlier drainage system associated with the Great House, although in Trench 1 the footings of an early wall were revealed. In addition, layer of orange sandstone rubble was encountered in Trenches 1, 3, and 4 which could be associated with the post-dissolution demolition of the abbey buildings or the construction of the present house. In either case it may represent a convenient stratigraphic marker, indicative of the point below which sensitive archaeology occurs.

1. INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.1 The refurbishment of Vale Royal Great House and the landscaping associated with the construction of a golf course has, given the archaeological sensitivity of the site (Section 1.2.2), necessitated an ongoing programme of archaeological work. This has involved the detailed recording of the standing building (LUAU 1995) and an investigation of other parts of the site beyond the scheduled area (LUAU 1997). The work described below was undertaken within the scheduled area prior to the laying of drains around the rear of the Great House. The area has been Scheduled as a monument of national importance, because of the former abbey on the site and it is believed that the abbey cloisters were situated in the area of proposed drainage work. Scheduled Monument Consent was granted for the laying of the drainage pipes, conditional upon the archaeological excavation of the drain trenches, which would enable the recording of any relevant deposits (Appendix 4).

1.2 TOPOGRAPHICAL AND HISTORICAL BACKGROUND

- 1.2.1 The present Vale Royal House is located at SJ 6385 6985, c4km to the south-west of Northwich, and overlooking the canalised course of the river Weaver immediately to the north-east. It lies at a height of c40m OD and, prior to the start of landscaping work associated with the golf course, was surrounded by a mixture of grassland and arable. Vale Royal lies right on the boundary between the Brown Sands soils that characterise the Delamere Forest and the Stagnogley soils found across much of the Cheshire Plain, both of which derive from the underlying glacial drift deposits in these areas (Ragg et al 1983, end map).
- 1.2.2 Vale Royal House, a Grade II listed building, was formerly the site of Vale Royal Abbey, a Cistercian house founded in 1277, which was extensively altered in the sixteenth, eighteenth, and nineteenth centuries. The abbey was founded by Edward I and the foundations of the abbey church, which stood to the north-east of the present house, were *c*120 m long. This made it the longest Cistercian house in the country (Kettle 1980).
- 1.2.3 At the Dissolution the site was sold to Thomas Holcroft who demolished the abbey church. In addition, the south and west cloister ranges were altered and extended to form a house. In 1616 the house became the property of Mary Cholmondeley, whose family retained the house until 1947. Substantial eighteenth and nineteenth century alterations were undertaken, including the rebuilding of the north-west and south-west wings, the construction of the Blore Wing in the 1830s, the refacing in brick of the south range, and the construction of the Douglas Wing in the 1860s (McNeil and Turner 1987).
- 1.2.4 In the early twentieth century the house was leased to the Hopkirks and then to the Dempster family. In 1939 Vale Royal was requisitioned as a sanatorium and subsequently became the Imperial Chemical Industry Salt Division headquarters, which it remained until 1961. The more recent past has been marked by attempts to

find a use for the building which, until its recent refurbishment, had grown steadily more derelict (LUAU 1995).

2. METHODOLOGY

2.1 **PROJECT DESIGN**

2.1.1 A project design was compiled, at the request of DHC Ltd, for the archaeological excavation of a series of drain trenches at Vale Royal Abbey, Cheshire. The project design (*Appendix 1*) provided for an evaluation by means of hand digging the trenches and the recording of any archaeological deposits. The work was completed in accordance with the Project Design.

2.2 EXCAVATION METHODOLOGY

- 2.2.1 In all cases the location of the trenches was determined by the intended line of new sewer pipes, which were to extend from the exterior of the Great House as far as the existing drainage system. The line of this latter system may be discerned on the ground by a series of man-hole-topped brick inspection chambers, which lie at a distance of between 4m and 6m from the east and north faces of the present Great House. Four trenches were excavated along the lines of proposed drains, three were to the north of the South Range and the fourth was to the north of the Library (Fig 2). With the exception of Trench 1, where the top 0.3m was removed by machine, using a 1.5m wide toothless ditching bucket, all excavation was undertaken by hand and was conducted in trenches 0.6m wide and to a maximum depth of 1.2m.
- 2.2.2 All excavation was carried out stratigraphically. The trenches were recorded by means of plans and sections drawn at a scale of 1:20, with each trench plotted onto a Computer Aided Draughting (CAD) plan of the Great House. Relative levels were taken on all trenches and the present ground surface, and all stratigraphic units were recorded by means of standard LUAU recording sheets. The recording system is based on that used by English Heritage's Central Archaeology Service. Trenches were left open at the conclusion of excavation work, in order to allow the installation of the new sewerage system.
- 2.2.3 *Finds:* All finds, apart from obviously modern debris, were retained for later analysis. All artefacts recovered were recorded and have been processed and temporarily stored according to standard practice (following current Institute of Field Archaeologists guidelines).

2.3 HEALTH AND SAFETY

2.3.1 Both Lancaster University and LUAU maintain safety policies, the latter based on SCAUM (Standing Conference of Archaeological Unit Managers) *Health and Safety Manual* (1991). In keeping with current Health and Safety at Work Regulations, prior to commencing on-site work, a risk assessment for each activity was compiled.

2.4 ARCHIVE

- 2.4.1 The results of the project form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The management of archaeological projects*, 2nd edition 1991). The project archive, consisting of all the data and material gathered during the project, has been checked and indexed.
- 2.4.2 The archive will be deposited with the Cheshire Museums Service and a synthesis will be included in the county Sites and Monuments Record. A copy will also be available for deposition with the National Archaeological Record in London.

3. EXCAVATION RESULTS

3.1 **TRENCH 1** (Figs 3 and 4)

- 3.1.1 Trench 1 was 9.7m long and 2.5m wide; it extended out from the east wall of the Great House West Wing, as far as an existing brick inspection chamber, into which the new sewer pipe was intended to drain. It was excavated to a depth of 1.28m at the eastern end of the trench. The top 0.3m of topsoil was removed by machine, to a width of 1.5m. The remainder of the trench was excavated by hand, to a width of 0.6m. Massive recent disturbance was encountered in the trench; most of which was associated with the construction pit (108) for the brick inspection chamber, seen at the eastern end of the trench. This contained a number of fills (101, 102, 103), all of which contained extremely recent debris. In addition, a plastic drain pipe packed in gravel (106) was visible within fill 101, and was seen in longitudinal section along much of the trench's length. This disturbance, however, had not entirely destroyed evidence for earlier activity: at the western end of the trench there was a post-medieval foundation trench (120) containing the remains of a brick wall (112). Lenses of sand (111) overlying the brick wall may indicate partial robbing.
- 3.1.2 Contexts 109 and 116 consisted of two thin deposits of sandstone rubble which may be associated with the demolition of the abbey buildings. The upper level of context 109 was encountered at 0.7m below the surface and context 116 was identified at 0.68m below the surface. Beneath one of these (116) was a number of sandstone blocks (105), which were apparently laid in courses. These sat on a dense deposit of clay and sandstone rubble (104), perhaps representing the fill of an early foundation trench. Unfortunately the later activity (108) had entirely destroyed any traces of a cut for this putative early wall and, without more extensive excavation, such an interpretation must remain speculative. Other early activity was seen beneath 109, where two waterlogged deposits (114 and 118), one of which (114) contained animal bone, were seen. Context 114 may represent the fill of an early pit cut into the natural clay.

3.2 TRENCH 2

3.2.1 Trench 2 was 5.1m long and 0.6m wide and was excavated entirely by hand. It extended for a distance of 5m north-east from close to the angle formed by the northern and eastern wings of the house as far as the brick inspection chamber described above. The trench was only excavated to a maximum depth of 0.6m, through entirely modern material, given the presence of numerous existing sewer pipes, into which the new system would be keyed.

3.3 **TRENCH 3** (Fig 3)

3.3.1 Trench 3 was excavated entirely by hand and extended north for a distance of 5.8m from the South Wing of the Great House as far as a brick-lined inspection chamber. It measured 0.6m wide and, whilst only 0.3m deep at its southern end, was excavated to a depth of 1.2m at its northern end, where it met the existing drainage system. The deposits encountered in this trench appeared to be entirely post-dissolution in date and are probably all of fairly recent origin. These included three sewer pipes, all laid in a

mixed deposit of sand, clay and rubble, in which it was difficult to see the cuts for the pipe trenches. There was a line of sandstone blocks encountered at a depth of 0.6m; however, this appears to have been connected with the drainage systems and was not associated with the monastic buildings; they lay close to the surface and were wholly contained in the rubble matrix described above. The cut for the construction pit of the inspection chamber was, however, visible at the northern end of the trench and had penetrated the rubble matrix described above. The main interest of this trench lay in the sandstone rubble layer encountered at a depth of 1.2m, at the northern end of the trench. This was similar to the layers (109, 116) encountered in Trench 1 and may represent the same putative post-dissolution rubble layer seen in that trench.

3.4 **TRENCH 4** (Fig 3 and 4)

3.4.1 Trench 4 was excavated for a distance of 3.6m north from the Library of the Great House, as far as the line of the existing drainage system. It measured 0.6m wide and reached a depth of 0.3m at its southern end and 1.2m at its northern end. In common with Trenches 2 and 3 it was dug entirely by hand. Within such a confined area it was difficult to make sense of the deposits encountered but *all* appeared to be post-dissolution in date and are probably of recent origin. The only definite cut occurred towards the trench's southern end, where a post-medieval brick and sandstone culvert had been cut by a massive construction pit for a feature to the south. The culvert or drain seemed to contain a black, silty clay deposit but, on its destruction, had been backfilled with slag and other debris. The putative construction pit was not bottomed but it extended to at least a depth of 1.2m (the maximum safe depth for an unshored section). This may be the cut for the cellar drainage system, which reaches a depth of at least 4m, judging by the inspection hatch to the east. The drainage system into which the new sewer pipes will be keyed lies wholly within this cut.

3.5 THE FINDS

- 3.5.1 All the material, with the exception of the anmal bone (*Section 3.5.2*), came from context 101 in Trench 1; this is a disturbed, post-dissolution top-soil depoist and is very similar to that recovered from other trenching programmes undertaken in Vale Royal (LUAU 1997). There is a mixture of medieval building material, deriving from the demolition of the abbey buildings, and relatively early post-medieval domestic pottery and glasswares with other domestic rubbish represented by bone. Presumably the deposits date from the period of transition after the Dissolution when various substantial modifications and additions were made to the standing buildings of the Abbey.
- 3.5.2 Animal bone was discovered only within context 114, a basal layer within Trench 1. As this is horse, it is unlikely to represent the disposal of domestic rubbish, and may potentially represent a deliberate burial.

4. DISCUSSION

4.1 Despite the restricted extent and sample of the trenches, the excavation programme has provided enough information to illustrate the extent of the disturbance in the areas

investigated: most of the area appears riddled with numerous drainage pipes, of varying ages, which have effectively removed any significant archaeology to a depth of at least 0.7m. Further away from the house, towards the line of the previously existing drainage system, modern disturbance has penetrated to a much greater depth and little seems to survive until a depth of at least 1.2m below present ground level has been reached.

- 4.2 A useful marker for the southern part of the site may be the occurrence of a thin layer of sandstone rubble (109 and 116) which was identified in Trenches 1 and 3. This has not produced any definite dating evidence but may represent evidence of post-dissolution demolition or deliberate build up, prior to the construction of the present house. As such it may mark the location of significant archaeology in any future investigations. It should not be thought, however, that the trenches were entirely devoid of archaeological significance. The wall footings (105) and possible pit fills (114 and 118) encountered in Trench 1, although not formally dated, suggest the survival of significant archaeological deposits in this area. All such evidence, however, appears to be sealed by a minimum of 0.7m of recent deposits and was not disturbed by the current programme of works.
- 4.3 One final point concerns the fact that this information can only be applied to the area between the walls of the Great House and the existing drainage system. Beyond the drainage system, within the area of the monastic cloister, disturbance may be much less severe

5. ARCHAEOLOGICAL IMPACT

Although the trenching programme has demonstrated considerable disturbance around the extent of the building there is the potential for survival of significant archaeological deposits, albeit perhaps only below depths of 0.7m below ground level. There is consequently a reduced likelyhood that shallow drains or similar interventions will affect the medieval archaeological deposits in the vicinity of the Great House. The present programme has not been able to evaluate areas away from the building and it is possible that the modern disturbance is reduced in such areas and therefore there may be a greater archaeological survival.

6. BIBLIOGRAPHY

Cooke, J H 1912 The ancient abbey of Vale Royal, Chester Archaeol Hist Soc, 19, 196-219

Holland, G 1977 An architectural history of Vale Royal house, Vale Royal House, Winsford Hist Soc

Kettle, A 1980 The abbey of Vale Royal, *Victoria History of the County of Cheshire*, ed. B. Harris, **3**, 156-164

Lancaster University Archaeological Unit (LUAU) 1995 Vale Royal Great House, Interim Report, Unpubl Rep

Lancaster University Archaeological Unit (LUAU) 1997 Vale Royal Golf Course and Housing Developments; Archaeological Evaluation Report, Unpubl Rep

McNeil, R, and Turner, RC 1987 An architectural and topographical survey of Vale Royal Abbey, *Chester Archaeol Soc*, **70**, 51-79

Ragg, J M, Beard, G R, Hollis, J M, Jones, R J A, Palmer, R, C, Reeve, M J, and Whitfield, W A D, 1983 *Soils of England and Wales: Midlands and Western England*, Southampton

SCAUM (Standing Conference of Archaeological Unit Managers) 1991 *Health and Safety Manual*, Poole

Thompson, FH 1962 Excavations at the Cistercian Abbey of Vale Royal, Cheshire 1958, *Antiq J*, **42**,183-207

APPENDIX 1 PROJECT BRIEF

APPENDIX 2 PROJECT DESIGN

Lancaster University Archaeological Unit

May 1996

VALE ROYAL ABBEY: DRAINAGE SYSTEM AND REPAIR TO THE NUN'S GRAVE REPAIR

CHESHIRE

ARCHAEOLOGICAL EXCAVATION AND WATCHING BRIEF

Proposals

The following project design is submitted on behalf of DHC (Bradford) Ltd, following discussions with both Jennifer Lewis (the Archaeological Consultant) and Ian Hudson of DHC ltd. This forms an element of an application for Scheduled Monument Consent to lay drain services to the Vale Abbey Great House, Cheshire, which will affect the area of the former abbey.

1. INTRODUCTION

The proposed drains around the rear of Vale Royal Great House, Lancashire, will affect an area of great archaeological potential. The area has been Scheduled as a monument of outstanding importance, because of former abbey on the site. It is believed that the drains will affect the area within the abbey cloisters. The proposed drains will extend out from an existing main within the Scheduled area and connect to sewerage points within the building. Thirteen short sections of drain will need to be excavated to a maximum depth of 2.5m and width of 1.5m. Schedule Monument Consent has been granted for the laying of the trenches, conditional upon the archaeological excavation of the drain trenches.

The nun's Grave will be subject to limited disturbance in the course of 'tidying up' the monument and immediate locality. This will require archaeological monitoring during the works and may require archaeological excavation to a maximum depth of 300mm.

The Lancaster University Archaeological Unit has considerable experience of the evaluation and excavation of sites of all periods, having undertaken a great number of small and large scale projects during the past 15 years. Fieldwork has taken place within the planning process and construction programmes, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. LUAU has been involved with the overall building and landscape recording programme since 1994. LUAU has the professional expertise and resource to undertake the project detailed below to a high level of quality and efficiency. LUAU and all its members of staff operate subject to the Institute of Field Archaeologists (IFA) Code of Conduct.

2. OBJECTIVES

The following programme has been designed, in accordance with a brief produced by the Archaeological Consultant following discussions with the County Archaeological Curator, to provide a suitable level of archaeological observation, recording, in advance of construction work. The required stages to achieve these ends are as follows:

2.1 Archaeological Recording

To excavate and record the line of the drain trenches, in advance of the laying of drains, to ensure maximum recovery of archaeological data.

2.2 Archaeological watching brief

To record accurately any surviving archaeological features or deposits by means of detailed observation and recording of drains laid outside the scheduled areas. To record the presence of buried features by appropriate recovery techniques, where applicable.

2.3 Archaeological monitoring at the Nun's Grave

To undertake monitoring of 'tidying up' of the Nun's Grave and immediate locality, which may involve excavation to a maximum depth of 300mm. The watching brief will involve photography and contextual recording of archaeological features exposed during the works programme.

2.3 Archive/Report

A full written report will assess the significance of the data generated by the entire programme of work, in a local and regional context, and will be suitable for deposition as a permanent archive of the work undertaken.

3. METHOD STATEMENT

The following work programme is submitted in line with the stages and objectives of the archaeological work outlined above. The proposed drain layout is defined by TACP Design drawing 2080/200a, which defines the extent and depth of all proposed trenches.

3.1 Archaeological Recording

Where the drains will be laid within the Scheduled area, it is proposed that the drain trenches should be manually excavated by qualified archaeologists, in order that all archaeological deposits be recorded to a sufficient level. This distinction between Stages 3.1 and 3.2 denotes the higher potential of encountering archaeological deposits of significance close to the surface in this area and is a requirement of the Scheduled Monument Consent.

The trenches would be manually excavated to a 1.5m width and would be excavated to the depth required for the drains.

Recording would follow the practices noted for Stage 3.1 (above). All information identified in the course of the site works will be recorded stratigraphically, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.

Results of the field investigation will be recorded using a system, adapted from that used by Central Archaeological Services of English Heritage. The archive will include both a photographic record and accurate large scale plans and sections at an appropriate scale (1:50, 1:20, and 1:10). All artefacts and ecofacts will be recorded using the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration. Samples will be collected for technological, pedological, palaeoenvironmental and chronological analysis as appropriate. If necessary, access to conservation advice and facilities can be made available. LUAU maintains close relationships with Ancient Monuments Laboratory staff at the Universities of Durham and York and, in addition, employs artefact and palaeoecology specialists with considerable expertise in the investigation, excavation and finds management of sites of all periods and types, who are readily available for consultation.

3.2 Archive/Report

3.2.1 Archive

The results of all archaeological work carried out during fieldwork will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (The Management of Archaeological Projects, 2nd edition, 1991). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. It will include summary processing and analysis of all features, finds, or palaeoenvironmental data recovered during fieldwork to the appropriate level. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct. LUAU conforms to best practice in the preparation of project archives for long-term storage. The expense of preparing such an archive is part of the project cost, but only represents a very small proportion of the total. This archive will be provided in the English Heritage Central Archaeological Services format and a synthesis will be submitted to the Cheshire Sites and Monuments Record (the index to the archive and a copy of the report). A copy of the archive will be available for deposition with the National Archaeological Record in London. LUAU practice is to deposit the original record archive of projects (paper, magnetic and plastic media) with the appropriate County Record Office, and a full copy of the record archive (microform or microfiche) together with the material archive (artefacts, ecofacts, and samples) with an appropriate museum. The actual details of the arrangements for the deposition/loan and long term storage of this material will be agreed with the landowner and the receiving institution.

3.2.2 Report

One bound and one unbound copy of a written synthetic report will be submitted to the Client, and a further copy submitted to the Cheshire Sites and Monuments Record following any comments from the Client. The report will include a copy of the agreed project design, and indications of any agreed departure from that design. It will present, summarise, and interpret the results of the programme detailed above and will include a full index of archaeological features identified in the course of the project, with an assessment of the overall stratigraphy, together with appropriate illustrations, including detailed plans and sections indicating the locations of archaeological features. Any finds recovered from the excavations will be assessed with reference to other local material and any particular or unusual features of the assemblage will be highlighted and the potential of the site for palaeoenvironmental analysis will be considered. The report will also include a complete bibliography of sources from which data has been derived.

This report will identify areas of defined archaeology. An assessment and statement of the actual and potential archaeological significance of the site within the broader context of regional and national archaeological priorities

will be made. Illustrative material will include a location map, section drawings, and plans. This report will be in the same basic format as this project design; a copy of the report can be provided on 3.5" disk (IBM compatible format), if required.

3.2.3 Confidentiality

All internal reports to the client are designed as documents for the specific use of the Client, for the particular purpose as defined in the project brief and project design, and should be treated as such. With the agreement of the Client, reports may be circulated to the County Archaeologist for discussion and approval as necessary, but are not suitable for publication as academic documents or otherwise without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose can be fulfilled, but will require separate discussion and funding.

3.3 Project Monitoring

3.3.1 Cheshire Sites and Monuments Record

Any proposed changes to the project design will be agreed with the Cheshire County Archaeological Curator in coordination with the Client. The Cheshire Sites and Monuments Record will be informed in writing at the commencement of the project and LUAU will arrange a preliminary meeting with them at the outset of the project, if required. All significant developments will also be related to the County Archaeological Curator. LUAU will give access to the County Archaeological Curator for the purpose of monitoring the proposed works, in consultation with the Client.

3.3.2 DHC ltd

An initial meeting of all parties will be arranged at the commencement of the project, if the Client so desires. LUAU will consult regularly with the Client during fieldwork, and regarding the consequences of that work. This consultation will include the attendance of a representative of the Client, if required, at any meetings convened with the County Archaeological Curator, to discuss the report or any other matter.

3.3.3 Project Staff

The project will be under the management of **Jamie Quartermaine**, **BA** (Unit Project manager) to whom all correspondence should be addressed. All Unit staff are experienced, qualified archaeologists, each with several years professional expertise. Project Officers in Unit terminology are senior supervisors, capable of organising and running complex area excavations as well as short-term evaluations to rigorous timetables.

APPENDIX 3 CONTEXT INDEX

Context	Trench No.	Brief Description
101	1	Mixed topsoil and disturbed ground filling the bulk of Trench 1 and
		Cut 108.
102	1	Layer of crushed brick at the base of Cut 108, at its eastern end.
103	1	Modern clay layer overlying 102, within Cut 108.
104	1	Possible rubble foundation for early Wall 105.
105	1	Sandstone blocks possibly representing an early wall.
106	1	Gravel packing for modern plastic drainage pipe.
107	1	Modern clay layer at base of Cut 108.
108	1	Number given to Cut for modern drain and brick-lined sewer
		inspection chamber.
109	1	Layer of sandstone rubble seen in lower part of section.
110	1	Natural sand.
111	1	Sand fill of Construction Trench 120.
112	1	Post-medieval wall in Construction Trench 120.
113	1	Dump of post-medieval debris cut by Construction Trench 120.
114	1	Fill of possible pit cut into natural 110.
115	1	Fill of Construction Trench 120.
116	1	Layer of sandstone rubble over Wall 105.
117	3	Number given to material recovered from the excavation of modern
		layers in Trench 3.
118	1	Layer of waterlogged clay overlying natural 110.
119	2	Number given to material recovered from the excavation of modern
		layers in Trench 2.
120	1	Cut for post-medieval wall trench at western end of Trench 1.
121	4	Number given to material recovered from the excavation of modern
		layers in Trench 4.

APPENDIX 4 FINDS CATALOGUE

Finds Catalogue; Vale Royal drain (L97/005)

Floor and roof tile

One fragment ?square floor tile. Large fragment in soft sandy oxidised fabric. Incomplete, very abraded. Glaze absent from upper surface, but limited remnants of slip suggest that it was originally decorated. Sides undercut, and dripped with green glaze - on the upper surface this may have appeared, over the slip, as yellow.

Length of side: 110mm; Th: 26mm

L97/005, 101//1, Medieval

One fragment floor tile. Small fragment in soft sandy oxidised fabric. Incomplete, abraded and worn. Upper surface dark grey, possibly reduced by secondary firing. Sides undercut, base and sides and dripped with thin, light green glaze.

Length of side: -; Th: 322mm L97/005, 101//2, Medieval

One triangular floor tile. Small tile in soft sandy oxidised fabric. Complete, abraded. Upper surface green glazed. Sides undercut, and dripped with green glaze. Tile formed by part-cutting, and then breaking a square tile across the hypotenuse prior to firing, probably whilst leather-hard..

Length of sides: 47mm, 56mm, 70mm; Th: 26mm

L97/005, 101//3, Medieval

One very small fragment ?green glazed roof tile. Very incomplete, fair condition. L97, 101//10, Medieval

Ceramic vessels

Two fragments Midlands purple-type ware. One body, one simple upright rim. Incomplete, good condition. L97/005, 101//7, Seventeenth - eighteenth century

Two body fragments garden ware. Small *terra cotta* flower pots. Incomplete, good condition. L97/005, 101//6, Post medieval

One fragment of iron rich fabric, marbled ware with thick brown glaze. Incomplete, good condition. L97/005, 101//8, Post medieval

One fragment dark red, hard-fired fabric with lustrous brown glaze. Incomplete, good condition. L97/005, 101/9, Post medieval

One small fragment pearlware tea ware. Blue and white underglaze transfer-printed. Incomplete, good condition. L97, 101//11, late eighteenth century?

Clay pipe

One fragment clay pipe stem. L97/005, 101//4, Post medieval

Copper alloy

One fragment, possibly part of the rim of a small vessel. Incomplete, poor condition. L97/005, 101//5, Undated

Vessel Glass

One body fragment dark olive green wine beer bottle. Fairly bulbous form.

L97/005, 101//12, early eighteenth century?

Animal bone

Five fragments animal bone, includes metapodials. Incomplete, poor condition. L97/005, 101//13, Undated

Four fragments animal bone, probably horse leg bones. Incomplete, poor condition. L97/005, 114//1, Undated

Masonry fragments

Two sandstone blocks, one on top of the other which lay on rubble foundations. The upper block is chamfered and the lower block is a near intact architectural moulding. They were possibly part of a sandstone wall which was damaged by the construction pit for the soakaway. L97/005; 103,104

APPENDIX 5 SCHEDULED MONUMENT CONSENT

ILLUSTRATIONS

Figure 1 Site Location Map Figure 2 Trench location map

Figure 3 Trench plans and Trench 1 Matrix

Figure 4 Trench Sections

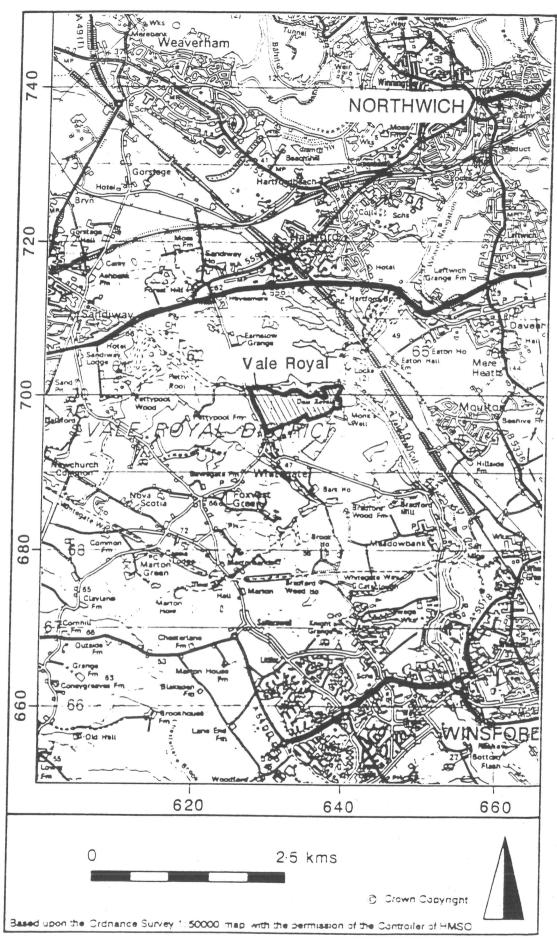


Figure 1 Vale Royal location plan

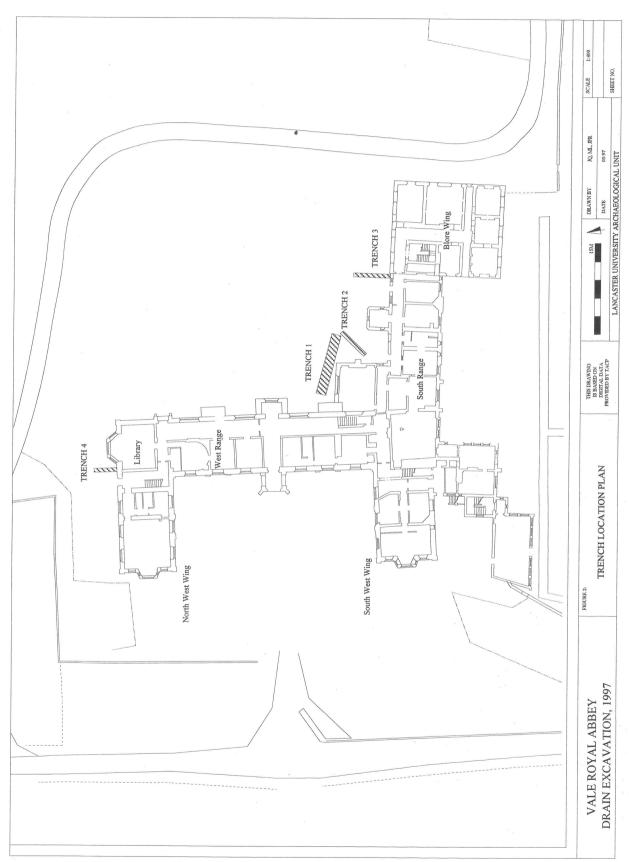


Fig 2 Trench Location Plan

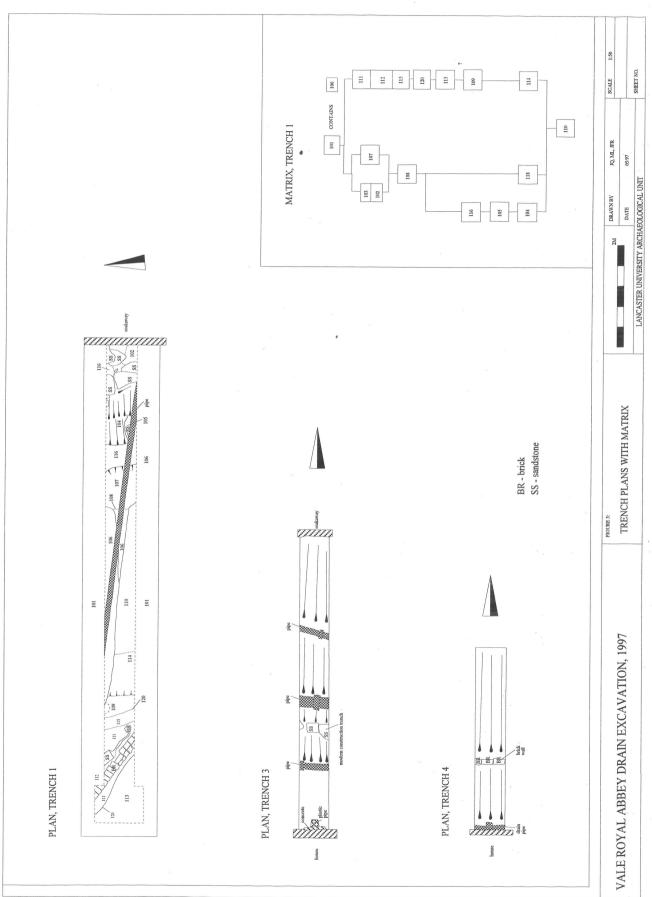


Fig 3 Trench Plans and Trench 1 Matrix

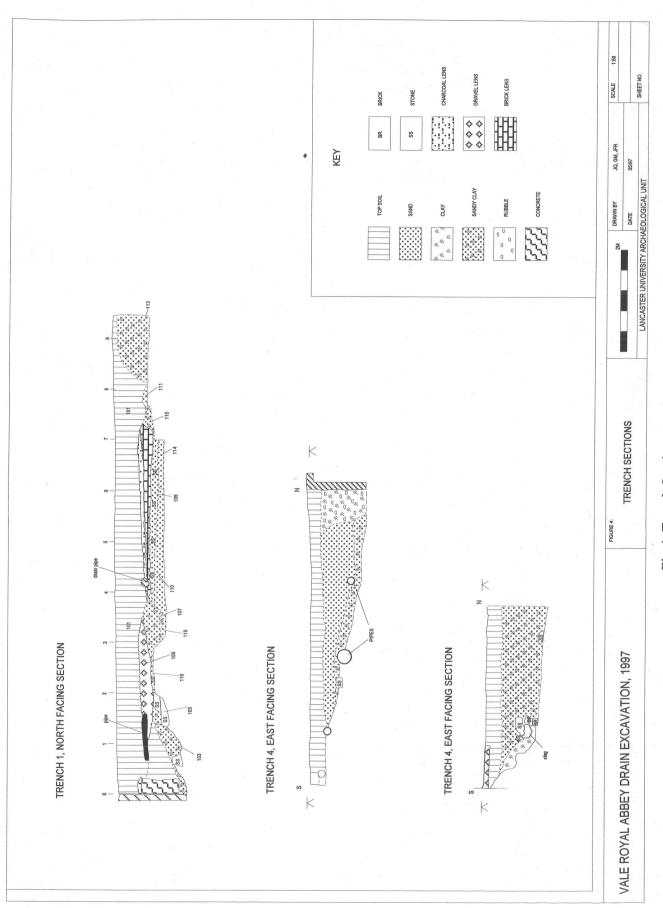


Fig 4 Trench Sections