THE WHITE SWAN
WESTCOTT

ASSESSMENT OF POTENTIAL AND UPDATED PROJECT DESIGN

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Preface

Every effort has been made in the preparation of this document to provide as complete an assessment as possible, within the terms of the brief and project design. All statements and opinions in this document are offered in good faith. Albion Archaeology 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.

Acknowledgements

This assessment has been prepared by Richard Gregson (Archaeological Supervisor) and Wesley Keir (Project Officer) with contributions by Jackie Wells and Holly Duncan (artefacts). Assessment of the botanical and faunal remains was undertaken by John Giorgi and Alan Pipe (respectively) of the Museum of London Archaeology Service. The figures have been created by Joan Lightning. The document has been edited by Joe Abrams (Project Manager).

The evaluation was carried out by Pre-Construct Archaeology (PCA 2005a and b*), while the mitigation works (excavation) were carried out by Albion. The excavation was supervised by Richard Gregson (Archaeological Supervisor) with investigation and recording carried out by the following staff: Adrian Woolmer and Jeremy Mordue (Assistant Supervisors), Anna Rebisz-Niziolek and Kathy Pilkington (Archaeological Technicians). Processing of the ecofact samples was undertaken by Sharon Gerber-Parfitt. All Albion projects are under the overall management of Drew Shotliff.*

Albion Archaeology is grateful to McCann Homes for commissioning the project. We would also like to acknowledge the comments of David Radford, the Buckinghamshire County Archaeological Service (BCAS) Archaeological Officer (AO), who monitored the site on behalf of Buckinghamshire County Council.

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Structure of the report

Following the introduction (Section 1), Section 2 presents the original research objectives of the project. Section 3 provides a provisional summary of the results of

the fieldwork. In the subsequent section, the various types of evidence (data) are discussed individually (Section 4). The potential of the data to address the original research objectives is discussed in Section 5. Section 6 describes the research objectives for analysis, with the means of achieving them set out in the updated project design (Section 7). Section 8 represents a bibliography.

Appendix 1 lists the full results of the ecofact sampling process. Appendix 2 details the method statements and resourcing for the completion of the analysis, publication and archiving.

Key terms

Albion	Albion Archaeology
AO	Archaeological Officer for the Buckinghamshire County Archaeological Service
BCAS	Buckinghamshire County Archaeological Service
Client	McCann Homes Ltd
IFA	Institute of Field Archaeologists
LPA	Local Planning Authority
Procedures Manual	Procedures Manual Volume 1 Fieldwork, 2nd Edition, 2001. Albion Archaeology
OD	Ordnance Datum

Non-Technical Summary

Planning permission (Application No. 05/0755) was granted by Aylesbury Vale District Council for the development of the former site of the White Swan Public House, Westcott, Buckinghamshire. However, the Buckinghamshire County Archaeology Service (BCAS) advised that the area of the development was within an archaeologically sensitive location and that a programme of archaeological work would be required as condition of planning permission.

An archaeological evaluation (Pre-Construct Archaeology Ltd 2005a and b) had produced results significant enough to require mitigation works ahead of construction works taking place. BCAS issued a brief for the mitigation works and Albion Archaeology was commissioned by McCann Homes to design and implement a programme of archaeological work in order to fulfil the condition. This archaeological work was undertaken between September and November 2006.

This document presents an assessment of the results of the archaeological investigations that have taken place on the development area. Remains dating to the Roman, medieval, post-medieval and modern periods were revealed during the trial trenching and excavation. These included substantial stratified deposits located in the northern half of the development area. These remains dated from the medieval period onwards. Arguably, the most significant remains revealed were those associated with a putative medieval moated site, again located in the northern half of the development area. Other remains included a possible Roman trackway and the remains of the 18th century and 20th century "White Swan" public houses.

The data recovered from these investigations has the potential to address a number of research objectives relevant to local, regional and national research agendas. The methodologies and resources required to complete the project are detailed in this document. The end product will be the publication of the results in Records of Buckinghamshire (the approved county-based archaeological journal) and the deposition of the project archive (Accession number 2006/179*) with Buckinghamshire County Museum.*

1. INTRODUCTION

1.1 Planning Background

Planning permission (Application No. 05/0755) has been granted by Aylesbury Vale District Council for the development of the former site of the White Swan Public House, Westcott, Buckinghamshire.

However, as a result of information gained during an earlier archaeological evaluation (Pre-Construct Archaeology Ltd 2005a and b), the Buckinghamshire County Archaeology Service (BCAS) advised that the area of the development was within an archaeologically sensitive location and that a programme of archaeological work would be required as condition of planning permission.

In February 2006 the BCAS Archaeological Officer issued a brief detailing the work required to fulfil the condition. On 11th April 2006 the client commissioned Albion Archaeology to design and implement a programme of archaeological work that would meet the requirements of the brief.

The archaeological work was carried out in accordance with a project design prepared by Albion Archaeology (2006).

1.2 Site Location

Westcott is located to the west of the Chilterns, between the catchments of the River Ray and the River Thame within the Vale of Aylesbury.

The development area is located on the north-east side of High Street on the former site of the White Swan Public House, centred on grid reference SP 7183 1711 (Figure 1). It is bordered by fields to the north, residential properties to the west and east, and High Street to the south.

The development area covers *c.*1000 square metres and lies at an average height of *c.*84m OD, sloping down slightly in the eastern part of the site before rising steeply beyond.

The underlying geology consists of solid limestone bedrock, overlain by Oxford Clay.

1.3 Archaeological Background

The site lies within the shrunken medieval village of Westcott, with known Roman, medieval and post-medieval remains in the vicinity.

Westcott is a shrunken medieval village, with origins that can be traced back to the late 12th century when it was part of Courtenay Waddesdon Manor held by Bicester Priory. By AD1230 a small manorial estate was established. However, by AD1544 documents indicate that Westcott was large enough to support two manors. Many surviving medieval earthworks remain in the

vicinity of the site, including moats, fishponds and house platforms. These earthworks are visible evidence of the medieval extent of the village.

Records indicate that the original White Swan public house may date back to the 17th century (Pre-Construct Archaeology 2005b). The public house is not depicted on two estate maps held in the Centre for Buckinghamshire Studies, one dating from 1847[1] and another the 19th century[2]. However, a building is shown as being located in the area of the development on an undated Inclosure Map of Westcott[3]. By 1885, the 1st Edition OS Map shows the public house located at the north-eastern end of the development area together with outbuildings. These structures were demolished and replaced by a new building in the 1930's (Pre-Construct Archaeology 2005a). This was located within the south-western half of the site and its footprint is clearly visible in Figure 9.

The evaluation of the site consisted of five trial trenches. This revealed (in the southern half of the site) a N-S aligned Roman ditch and deposits that contained Roman pottery (Pre-Construct 2005a). Trenching in the northern half of the site revealed significant medieval deposits, including a large ditch that was tentatively interpreted as a moat, structural evidence in the form of a limestone cobbled surface and a posthole, as well as relatively extensive stratified layers.

It was considered possible that the structural evidence may have been related to settlement associated with an earlier medieval N-S road thought to have existed to the east of the site (Pre-Construct Archaeology 2005b).

A limestone block was revealed in a trench in the north-eastern part of the site. This was associated with the foundations of the 17th century White Swan public house. Deposits and features dating to the 18th and 19th centuries were also noted.

Unsurprisingly, elements of all of the above remains were again revealed during the mitigation works, at which time it was possible to gain a fuller understanding of their character.

1.4 Nature of Archaeological Investigations

On the basis of the results of the evaluation (Section 1.3), BCAS set out a requirement for archaeological mitigation works on the site as a condition of planning permission. Open area investigation of the site was undertaken by Albion Archaeology between September and early November 2006.

[1] "Plan of the Wotton Estate" dated 1847. Reference: Ma 298 R
[2] "Plan of Manorial and Freehold Estates Situate in the Parishes and Hamlets of Waddesdon, Upper Winchendon, Westcott and Cuddington, Buckinghamshire" dated 19th century. Reference: D/HJ/5/10.R
[3] Inclosure map titled "Westcott, Bucks". Reference: D/HJ/5/5.R

1.5 Purpose of this Report

This report presents an assessment of the results of all stages of the archaeological investigations. An updated project design is included listing all tasks that will be required to analyse, publish and archive the results of the fieldwork. The completion of these tasks will fulfil the criteria stipulated in the AO's brief (BCAS 2006). This will allow the discharge of the archaeological planning condition by the LPA.

2. ORIGINAL AIMS AND OBJECTIVES OF THE INVESTIGATION

2.1 Introduction

A series of research aims were established in the brief (BCAS 2006) and project design (Albion Archaeology 2006). These were necessary to ensure that the investigation was appropriately targeted in accordance with local, regional and national research priorities.

2.2 National Research Frameworks

At a national level, English Heritage's criteria for prioritising archaeological "sites" are evolving. It's funding criteria for rescue projects, as set out in *Exploring our past* (EH 1991), were similar to those it uses to define a "site" as being of schedulable quality. These included period, rarity, group value, survival/condition, fragility/vulnerability and potential. More recently a draft Research Agenda (EH 1997) built upon the earlier criteria, with the aim of developing an approach reflecting 'the greater determination to pursue research themes' and 'wider interests (e.g. in landscapes)'. These include goals such as advancing understanding of England's archaeology, supporting the development of national, regional and local research frameworks and promoting public appreciation and enjoyment of archaeology.

Although the Research Agenda was intended for projects seeking English Heritage resources, i.e. not those undertaken within the PPG 16 framework, its goals and objectives can be considered when the archaeological resource of the development area is being assessed.

English Heritage's Monuments Protection Programme is an on-going assessment and review of each definable archaeological monument class and industry in England. The medieval settlement related remains at Westcott have not been identified as of potential national importance within the Monument Protection Programme, but are considered likely to be of county/regional importance in view of their state of preservation. This indicates they have significant research and historic landscape value. These remains also have a group value as part of their potential relationship with the early medieval Waddesdon Estate.

2.3 Regional and county-based research agendas

At present no county-wide research agenda exists for Buckinghamshire, though an archaeological research framework for the Solent-Thames region (including Buckinghamshire) was launched towards the end of November 2005 and is due to be completed in January 2008.

The archaeological resource and research agenda of the neighbouring county of Northamptonshire has been assessed in *The Archaeology of the East Midlands* (Cooper 2006 (in particular, Lewis and Taylor in that volume)). Historical similarities (at a regional level) between the counties of

Buckinghamshire and Northamptonshire make the document a useful tool for assessing the significance of the archaeological remains at this location.

The archaeology of the Chilterns was the subject of a conference in the early 1990s (Holgate 1995). Although the site is peripheral to this region, some of the topics covered in the resultant research framework may be relevant (Hunn 1995, Table 1)

2.4 Original Research Objectives

Generic objectives comprised the investigation of all archaeological features/deposits to a level of detail where they can be fully defined, dated and an interpretation of their function made. Specific objectives for the investigation were as specified in the AO's Brief. In addition, a series of research themes potentially relevant to the excavation were identified (by Albion) using the above national and regional research themes.

The following table summarises the original research objectives and themes.

Objective / Theme	Research Aims/Themes
1	Establish the date, nature and extent of activity or occupation in the development site.
2	Establish the character and extent of pre-medieval activity on the site. In particular, Roman activity (as was revealed in the evaluation) and any evidence for Saxon activity.
3	Investigate the nature, date and plan form of medieval boundary/track way deposits with particular attention to information relating to the origins and evolution of the settlement, the laying out of plots etc.
4	Given the presence of substantial stratified medieval and post-medieval deposits, record the character and chronological evolution of these, relating this information to the morphological development of the village.
5	Seek to establish the date of earliest Saxon/medieval occupation; when were the outlying 'cotes' around Waddesdon established and was there any regulated planning involved or was development piecemeal?
6	Identify and record any domestic, agricultural, commercial or manufacturing related deposits, especially with regard to any evidence for specialisation of function in the early medieval period.
7	With reference to the Roman remains identified in the evaluation; the themes of **Rural settlement, landscape and society** (Taylor 2006, 157, para.4) and **Rural settlement** (English Heritage 1997, T3) identified in regional and national research frameworks were considered.

Objective / Theme	Research Aims/Themes
8	With reference to the medieval and post-medieval structural and occupation remains, the following themes identified in regional and national frameworks were potentially relevant: **Rural settlement: nucleated villages** (Lewis 2006a, 212, para.1,2 and 4); **The medieval landscape of the Chiltern dipslope: a brief outline of the administration and infrastructure of the countryside around St. Albans (**Hunn 1995, 55); **Transition from medieval to post-medieval traditions (c. 1300-1700 AD)** (English Heritage 1997, PC7); **Rural settlement** (English Heritage 1997, T3).
9	With particular reference to the putative moat, the following theme identified in a regional framework was potentially relevant; **The manor: Moated manorial sites** (Lewis 2006b, 212, para.2

Table 1: *Summary of original research objectives and themes*

3. PROVISIONAL SUMMARY OF RESULTS

3.1 Introduction

3.1.1 Methodological approach to assessing contextual data

The contextual data was rapidly assessed in order to establish whether it would provide a coherent spatial and chronological framework. A total of 522 contexts were assigned to provisional groups, e.g. possible moat, postholes, bedding trenches, *etc*. (Table 2). The decision as to which Assessment Groups contexts were assigned to, was made on the basis of the following criteria:

- Do the contexts form a coherent spatial unit e.g. ditch length, pit group *etc*?
- Do the contexts represent key positions within the stratigraphic sequence?
- Do the contexts contain suitable dating material?

Assessment Groups were then assigned to a number of distinct Assessment Landscapes, corresponding to larger coherent and contemporaneous spatial units. These Assessment Landscapes were then assigned to a number of episodes (Phases) of human activity corresponding to broad, chronological divisions (Periods), e.g. medieval or post-medieval, based on their artefactual assemblage. Where more than one distinct episode of human activity was apparent within a chronological period, they were assigned to separate Phases.

The text which follows is structured by Period, and discussed by Phase, Assessment Landscape (AL) and, where relevant Assessment Group (AG).

Period	Phase	Assessment Landscape (AL)	Assessment Group (AG)	Description
Pre-Pleistocene	1	101	101.01	Undisturbed geological deposit
Unknown	2	201	201.01	Buried subsoil pre-dating the Roman features
Roman	3	301	301.01	Ditches
			301.02	Ditch terminus
Roman to post-medieval	4	401	401.01	Buried subsoil post-dating the Roman features
Medieval	5	501	501.01	NW-SE ditch
			501.02	Bank
			501.03	NW-SE ditches
			501.04	Ditches sealed by pond
		502	502.01	Pit
	6	601	601.01	Possible moat
			601.02	Pond
			601.03	Ditch
			601.04	Ditches
			601.05	Layer
			601.06	Ditch infill
		602	602.01	Side ditches to the possible moat

Period	Phase	Assessment Landscape (AL)	Assessment Group (AG)	Description
		604	604.01	NE-SW Ditch
			604.02	Pit
		605	605.01	Layers
			605.02	Ditch infill
		606	606.01	Limestone scatters
Late Medieval/Early Post-Medieval (transitional)	7	701	701.01	Irregular hollow
			701.02	Treethrow
		702	702.01	Ditch terminus
		703	703.01	Structural feature
Post-medieval	8	801	801.01	Shallow pit
			801.02	Layer
		802	802.01	Pits
		803	803.01	Layer
		804	804.01	Posthole and in-situ post
			805.01	Posthole
Modern (1750-onwards)	9	901.00	901.01	Bedding trenches
			901.02	Ditches
			901.03	Treethrow and rooting
		902.00	902.01	Old "White Swan" public house
			902.02	Building
			902.03	Pathways
			902.04	Building
			902.05	Building and pit
			902.06	Metalled surfaces
			902.07	Ditch
			902.08	Cess pits
			902.09	Drain pipe
			902.10	Gully
			902.11	Layer
			902.12	Demolition spread
		903.00	903.01	Row of postholes
	10	1001.00	1001.01	New "White Swan" public house
			1001.02	Drainage features
			1001.03	Tarmac and levelling layers around the public house
			1001.04	Concrete hardstanding
			1001.05	Small building in north-eastern corner of the development area
			1001.06	Small outbuilding and associated courtyard walls
			1001.07	Modern intrusions associated with building construction
			1001.08	Concrete foundations of building in north-eastern corner of the development area

Period	Phase	Assessment Landscape (AL)	Assessment Group (AG)	Description
		1002.00	1002.01	Pits
			1002.02	Dog burial
			1002.03	Soakaway
		1003.00	1003.01	Uppermost turf and vegetation
			1003.02	Backfill of evaluation trenches
		1004.00	1004.01	Topsoil

Table 2: *Summary of provisional phasing*

3.2 Phase 1: Pre-Pleistocene

3.2.1 AL101: Undisturbed geological deposit

The underlying undisturbed geological deposit consisted of Oxford Clay.

3.3 Phase 2: Unknown (Figure 2)

3.3.1 AL201: Buried subsoil pre-dating the Roman features

Buried subsoil AL201 overlay geological deposit AL101. It was truncated by ditches AL301 which have been dated to the Roman period (Section 3.4.1) indicating that it formed in either the Roman or pre-Roman period. A fragment of Roman CBM was recovered from this deposit during the evaluation.

3.4 Phase 3: Roman (Figure 2)

3.4.1 AL301: Ditches

The earliest datable features comprised two parallel ditches AL301. These were 4m apart and aligned N-S.

Pottery recovered from one of the ditches was identified as late Roman ($3^{rd}/4^{th}$ century AD, Section 4.3) and although no pottery was recovered from the other ditch, it was dated to the Roman period by association.

The terminus of a third ditch (AG301.02) was recorded in the southern part of the development area orientated E-W. No dateable artefactual material was recovered from it and was phased on the basis of its stratigraphic position.

These ditches were located in the southern part of the development area and were the only remains identified as Roman. Other indicators of activity during this period came in the form of abraded sherds of Roman pottery recovered from medieval layers and several medieval and post-medieval features. This suggests further Roman activity in the vicinity.

The thin strip of land defined by these ditches is morphologically typical of a trackway (Figure 2). Such trackways were a common feature in Roman Britain, being used to connect farms and/or small rural settlements and ultimately connect to major roads. It seems likely that such farms and settlements would have existed in this area as it lies in close proximity to the

Roman road known as Akeman Street. This road (and major trade route) passed *c.*500m north of the development area and would doubtless have acted as a magnet for minor routes to link up with.

3.5 Phase 4: Roman – Post-Medieval (Figure 3)

3.5.1 AL401: Buried subsoil post-dating the Roman features

Overlying subsoil AL201 and sealing the Roman ditches was subsoil AL401. This was cut by post-medieval and modern features.

These stratigraphic relationships indicate that it dates to between the Roman and post-medieval periods and probably formed as a result of ploughing.

3.6 Phase 5: Medieval (Figure 3)

3.6.1 AL501: Six ditches and a remnant bank

Six relatively small ditches, together with an associated remnant bank, were recorded in the northern part of the development area.

Four of these ditches (AG501.01 and AG501.03) were on a similar alignment to a stratigraphically later, large ditch identified as part of a possible moated feature (AL601, Section 3.7.1), suggesting they may have been associated with an earlier version of it. Three of these ditches (AG501.03) appeared to have been infilled with up-cast material from the possible moat AL601. Ditch AG501.01 was stratigraphically earlier than the rest and was accompanied on its south-western side by a remnant bank AG501.02.

Two further ditches AG501.04 orientated NW-SE also form part of this series of remains. These features contained early to late medieval artefactual material (Section 4.3) as well as some residual Roman artefacts.

3.6.2 AL502: Pit

Pit AG502.01 (Figure 3) measured 1.7m in diameter. Artefactual material recovered from it included animal bone, fired clay and pottery (Section 4). The pottery was identified as early to late medieval in date (Section 4.3).

3.7 Phase 6: Medieval (Figures 4 and 5)

3.7.1 AL601: Possible moat and associated ditches, pond and layer

A large, 5m wide, U shaped ditch (AG601.01) was located in the northern half of the site and orientated NW-SE. It was connected, via ditch AG601.03, on its northern side to AG601.02, a pond like feature.

Ditches AG601.04 also connected to this pond like feature on its north-eastern side. The area to the north-west of these features was overlain by AG601.05, a 0.3m thick layer similar in character to deposit AG601.06 which infilled the earlier ditches AG501.03 (Section 3.6.1, Phase 5).

Early through to late medieval/early post-medieval artefacts were recovered from the AL601 features, as well as some residual Roman and Saxo-Norman pottery (Section 4.3).

Moats have been defined as a "broad flat-bottomed ditch not less than 5m wide which may completely, or partially, isolate a platform that is devoid of any defensive bank" (Aberg 1978, 1). Elsewhere, it has been suggested that ditches around moated sites were normally "relatively wide, between 3 and 6m across" (Taylor 1978, 8). AG601.01 falls within these parameters. Also, pond like feature AG601.02 and associated ditches AG601.03 and AG601.04 (one of which links it to the possible moat) are all relatively common, well documented features found in the interiors of medieval moated sites.

Ditches AG601.04 were aligned with a pond shown on Ordnance Survey (OS) 1st Edition map in the field to the north-east of the development area. It is possible that the ditch connected to this now infilled water feature, suggesting this complex of ditches and ponds extended beyond the confines of this investigation.

The material which made up layer AG601.06 comprised sloping bands of darker and lighter clay that were similar in nature to the undisturbed geological deposits. The most likely source of this material was from up-cast created during the initial construction and subsequent maintenance of the moated feature and the various associated ditches.

Such material has, on occasion, been used to create a raised platform on medieval moated sites. However, while such platforms are common in some counties, this is not a universal characteristic (Taylor 1978, 10), and the designation of layer AG601.05 as a platform remains uncertain.

In summary, the evidence strongly indicates that the features which make up AL 601 are components of a former medieval moated site. However, it must be borne in mind that fishponds and other features associated with medieval manorial or farmstead complexes have been mistaken for moats in the past (Taylor 1978, 5). A relatively small portion of the putative moated site was revealed and alternative suggestions to its original function will be given due consideration during analysis.

3.7.2 AL602: Side ditches to the possible moat

Two shallow ditches were revealed adjacent to the north-eastern side of and parallel to the possible moat (AG601.01). The deposits within these ditches were very similar to that within AG601.01. It is possible these ditches were dug to widen and create shallower, gentler sloping edges to the possible moat in order to allow livestock to drink more easily from it. Evidence for this has been noted on other moated sites (Taylor 1978, 8).

3.7.3 AL604: Ditch and pit

Shallow ditch AG604.01 was orientated NE-SW. This has been associated with shallow pit AG604.02 partly on the basis of their stratigraphic position between medieval layers belonging to AL601 and AL605.

Ditch AG604.01 appeared to have been infilled with up-cast material derived from the excavation of neighbouring features (AL605, Section 3.7.4).

3.7.4 AL605: Layers

A sequence of layers (AG605.01) overlay both the undisturbed geological deposit and, partially, medieval layer AG601.05 in the northern corner of the development area (Figure 5). Deposits of an identical nature (AG605.02) also infilled ditch AG604.01 (Section 3.7.3). These deposits consisted of orange/brown clay and contained medieval and transitional medieval/post-medieval pottery, as well as two intrusive sherds of post-medieval pottery.

The character of these layers indicates that, as with earlier layer AG601.05, they are derived from the underlying geology. As with AG601.05, these layers may have been created when upcast from the moated feature (or the other ponds and ditches in its vicinity) was deposited as part of a maintenance process.

3.7.5 AL606: Limestone scatters

Several irregular spreads of un-shaped and un-sorted limestone pieces were identified at varying horizons in the area to the north of the possible moat and pond. Pottery sherds recovered from the surface of one of these spreads dated to the medieval period.

They may represent scattered remnants of some sort of metalled surface or track. Their location suggests it is also possible they may be related to a later hollow (AL701), though the artefactual material indicates they are more likely to be contemporary with the features in Phase 6. The variable depth of these spreads may be due to disturbance by later agricultural activity. Alternatively, the putative limestone surface may have been laid over an un-even patch of ground, possibly as an attempt to level it.

3.8 Phase 7: Late Medieval/early Post-Medieval (transitional) (Figure 6)

3.8.1 AL701: Irregular hollow and treethrow

AG701.01 was a large, shallow, irregular feature recorded in the northern part of the development area. The datable artefactual material recovered from AG701.01, was mostly identified as medieval, with a few, from the upper part of the deposit identified as post-medieval. It partially overlay pond AG601.02 and ditches AG601.04.

This feature may have been deliberately dug, though its irregular nature suggests it is more likely to be a naturally formed hollow resulting from animal trample in an area of wet ground.

Treethrow AG701.02 was recorded just to the east of this hollow. Although it contained no artefacts, its location and stratigraphic relationships suggest it was contemporary with the hollow.

3.8.2 AL702: Ditch terminal

A ditch terminal was recorded on the north-eastern edge of the development area. Medieval and post-medieval pottery (Section 4.3) and roof tile fragments were recovered from its primary deposit.

3.8.3 AL703: Structural feature

A single, straight-sided slot was revealed in the southern part of the development area. Its form suggests it may have contained a wooden beam or possibly the remains of a robbed out wall.

Early medieval and post-medieval pottery (Section 4.3) and ceramic building material were recovered.

3.9 Phase 8: Post-medieval (Figure 7)

3.9.1 AL801: Pit and possible up-cast layer

A large, shallow, oval pit (AG801.01) truncated part of the south-western side of moat AG601.01.

Adjacent to the pit and overlying the north-eastern side of the moat was a layer (AG801.02) containing medieval artefacts. Its location and stratigraphic relationships suggest this layer was formed from up-cast material derived from the excavation of pit AG801.01 into the upper fills of the moat.

The pit was filled with a dark, organically rich deposit that contained post-medieval artefacts.

3.9.2 AL802: Pits

Pits AL802 were relatively small in size and sub-circular in shape, one of which was sealed by layer AL803. They were spaced 12m apart and contained artefactual material dating to the medieval, post-medieval and modern periods. Their stratigraphic relationships indicate they date to the post-medieval period.

3.9.3 AL803: Layer

A 0.35m thick layer of dark soil was revealed overlying the moated feature AG601.01 and medieval layers AG601.05 and AG605.01. Artefactual material recovered from the lower part of this deposit dated from the post-medieval period and those recovered from the upper part were identified as post-medieval and modern.

The nature of the deposit suggests it is an agricultural soil and possibly associated with a cottage garden depicted in this location on the 1st Edition OS map.

3.9.4 AL804: Post and posthole

An in-situ timber post (AG804.01) was revealed within deposits contained within the middle of moated feature AG601.01. A posthole (containing no timber, AG805.01) was identified within same deposit *c.*1m to the north-west.

It is thought that both features date to the post-medieval period, due to their stratigraphic position. Their function is unknown.

3.10 Phase 9: Modern (1750-onwards) (Figure 8)

3.10.1 AL901: Garden features

Six parallel bedding trenches (AG901.01) and two ditches (AG901.02) truncated the upper part of agricultural soil AG803.01. They contained artefactual material dating to the post-medieval and modern periods, and were sealed by an artefact rich soil (AG902.11) thought to be associated with the garden of the old "White Swan" public house.

Treethrow AG901.03 was revealed within an area to the north-west of the remains of the old "White Swan". This patch of land corresponds to an area of trees marked within the cottage garden on the 1st Edition OS map.

3.10.2 AL902: The old "White Swan" public house and associated features

This landscape element is one that corresponds most closely to the buildings and garden features visible on the 1st Edition OS map.

The uppermost remains of the old "White Swan" were a substantial demolition spread (AG902.12), comprising mostly limestone blocks with concentrations of brick. Artefacts recovered from this demolition deposit dated to the post-medieval and modern periods. Further remains include limestone foundations and brick walls (AG902.01). Documentary records indicate that this building dates back to the middle of the 18th century, though it is reputed to date back as far as the 17th century (Pre-Construct Archaeology 2005b).

Remains of a second building (AG902.02) were visible to the south of AG902.01 and although no datable artefactual material was recovered from this building it is considered contemporary with the above building. The lower courses of its walls were constructed of rough hewn limestone blocks similar to those used in parts of the old "White Swan" public house. The remains correspond to a building depicted on a photograph taken *c.*1914/1915.

Remains of a small brick built structure (AG902.04) were revealed to the south-west of the above building. This may correspond with a building partially visible on the above mentioned photograph.

The remains of rectangular building AG902.05 lay to the north-west of AG902.02 and is depicted on the 1st Edition OS map. The walls of this building had been robbed out leaving only fragments of limestone and mortar.

The remains of a possible path (AG902.03) were situated to the north-west of AG902.01. It correlates with a garden path visible on the OS 1st Edition map. A second path constructed of faced limestone blocks with a rubble core was revealed between buildings AG902.02 and AG902.05. This may have been a pathway to the entrance of the public house (AG902.01).

A variety of external metalled surfaces (AG902.06) were revealed in the vicinity of the old "White Swan" public house and its associated outbuildings. These varied from scattered sub-rounded limestone stones or flint nodules to well laid bricks and faced stones.

Various features were identified with associated service facilities of the old "White Swan". These comprised of cess pits (AG902.08), a ditch containing cess material (AG902.07), a gully (AG902.10) and drain pipe (AG902.09).

A distinct layer (AG902.11) was recorded below the current topsoil and above the garden features (AL901) and agricultural soils (AL803). It contained a higher density of post-medieval and modern artefacts, particularly clay pipes and pottery sherds, than the layers above and below. It probably represents waste dumped during the use of the pub.

3.10.3 AL903: Row of postholes

A row of seven postholes orientated NW-SE was recorded. All seven are considered contemporary, due to the fact that they form a line.

3.11 Phase 10: Modern (1750-onwards) (Figure 9)

3.11.1 AL1001: The new "White Swan" public house and associated buildings

The remains of a large building (AL1001) were identified as being of the new "White Swan" public house which was built in the 1930's. The remains of two other brick built buildings appear to date to a similar period and were probably outbuildings.

Related features included levelling layers of brick rubble for tarmac surfaces (AG1001.03); concrete hardstanding (AG1001.04); and drainage features (AG1001.02).

A small rectangular building (AG1001.05) of unknown function was located in the north-eastern corner of the development area. This building had a concrete foundation layer (AG1001.08). A second brick outbuilding appears to have been keyed into courtyard walls (AG1001.06) at the back of the new "White Swan" public house.

3.11.2 AL1002: Features to the rear of the new "White Swan" public house

Two pits (AG1002.01) were revealed in the northern part of the development area: both contained modern rubbish. A dog burial (AG1002.02) and soak-away (AG1002.03) filled with modern rubbish and hardcore were recorded.

3.11.3 AL1003: Uppermost turf, vegetation and backfill deposits of the archaeological evaluation trenches

Recently formed turf (AG1003.01) supporting vegetation, was present in places overlying the remains of modern buildings or tarmac surfaces.

3.11.4 AL1004: Topsoil

Modern topsoil was present across the whole of the development area except where modern buildings had stood or modern tarmac surfaces had been laid.

4. DATA-SET QUANTIFICATION

4.1 Introduction

For the following discussion the data-sets recovered during the investigations have been divided into three main classes: contextual, artefactual and ecofactual.

> ***Contextual*** data relate to the identification of individual events such as the digging of a ditch, its primary infilling etc. These have been recorded as context records during the evaluation and open area excavation. All contexts have a detailed record sheet; many have a plan and section drawing along with photographs.
>
> ***Artefactual*** data comprises human-made objects recovered during the open area excavation. These have been divided for ease of discussion into pottery, ceramic building material and other artefacts (including registered artefacts and bulk finds, such as industrial residues).
>
> ***Ecofactual*** data comprise natural materials found within excavated deposits. These are able to yield information on the nature of past human activity and its environmental setting. They include animal bones, and information obtained from environmental samples (for example plant remains).

In the following sections contextual data is discussed first as this has provided the framework for the preceding summary of results and the subsequent data-set discussions. The methodological approach taken with each data-set is discussed, followed by sections dealing with quantification, provenance (spatially and chronologically) and also condition. All these factors are important in deciding the potential of the material for analysis.

A finds assemblage comprising Roman and post-Roman pottery and ceramic building material, post-Roman vessel and window glass, clay tobacco pipes, metal objects, and a small quantity of animal bone was recovered from the evaluation. This material has been examined and its potential and recommendations for further work noted (Pre-Construct Archaeology Ltd, 2005a). The assemblage will be reassessed and fully integrated into the current data-set during analysis.

4.2 Structural Data

4.2.1 Quantity of records

	Evaluation	Excavation	Total
Contexts	62	459	522
Plan Sheets	-	18	18
Sections	-	42	42
Photos	-	397	397

Table 3: *Quantity records*

Section 3 and the following data-set discussions are structured by Period, and discussed by Phase, Assessment Landscape (AL) and, where relevant Assessment Group (AG).

Period	Phase	Assessment Landscape	Assessment Group	Description	No. contexts
pre-Pleistocene	1	101	101.01	Undisturbed geological deposit	11
Unknown	2	201	201.01	Buried subsoil pre-dating the Roman features	5
Roman	3	301	301.01	Ditches	29
			301.02	Ditch terminus	2
Unknown	4	401	401.01	Buried subsoil post-dating the Roman features	2
Medieval	5	501	501.01	NW-SE ditch	13
			501.02	Bank	6
			501.03	NW-SE ditches	9
			501.04	Ditches sealed by pond	4
		502	502.01	Pit	4
	6	601	601.01	Possible moat	22
			601.02	Pond	25
			601.03	Ditch	2
			601.04	Ditches	24
			601.05	Layer	6
			601.06	Ditch infill	10
		602	602.01	Side ditches to the possible moat	27
		604	604.01	NE-SW Ditch	6
			604.02	Pit	2
		605	605.01	Layers	5
			605.02	Ditch infill	4
		606	606.01	Limestone scatters	6
Late Medieval/Early Post-Medieval (transitional)	7	701	701.01	Irregular hollow	6
			701.02	Treethrow	3
		702	702.01	Ditch terminus	6
		703	703.01	Structural feature	4
Post-medieval	8	801	801.01	Shallow pit	2
			801.02	Layer	1
		802	802.01	Pits	5
		803	803.01	Layer	7
		804	804.01	Posthole and in-situ post	2
			805.01	Posthole	2
Modern (1750-onwards)	9	901.00	901.01	Bedding trenches	18
			901.02	Ditches	7
			901.03	Treethrow and rooting	4
		902.00	902.01	Old "White Swan" public house	34

Period	Phase	Assessment Landscape	Assessment Group	Description	No. contexts
			902.02	Building	12
			902.03	Pathways	6
			902.04	Building	2
			902.05	Building and pit	33
			902.06	Metalled surfaces	7
			902.07	Ditch	10
			902.08	Cess pits	14
			902.09	Drain pipe	3
			902.10	Gully	5
			902.11	Layer	1
			902.12	Demolition spread	3
		903.00	903.01	Row of postholes	20
	10	1001.00	1001.01	New "White Swan" public house	5
			1001.02	Drainage features	27
			1001.03	Tarmac and levelling layers around the public house	5
			1001.04	Concrete hardstanding	7
			1001.05	Small building in north-eastern corner of the development area	4
			1001.06	Small outbuilding and associated courtyard walls	4
			1001.07	Modern intrusions associated with building construction	6
			1001.08	Concrete foundations of building in north-eastern corner of the development area	2
		1002.00	1002.01	Pits	4
			1002.02	Dog burial	2
			1002.03	Soakaway	6
		1003.00	1003.01	Uppermost turf and vegetation	2
			1003.02	Backfill of evaluation trenches	1
		1004.00	1004.01	Topsoil	4
Total					520

Table 4: *Group descriptions (ordered by period) with count of assigned contexts*

4.2.2 Survival and condition of features/deposits

Remains were generally well preserved. Indeed, the survival of a bank (AL501) and medieval layers (AL601 and AL605), indicate that features and deposits in the northern half of the development area have suffered relatively little from modern truncation.

However, the irregular nature of possible medieval surface AL606 (represented by limestone scatters) suggests other parts of this land parcel have suffered truncation. This truncation is most obvious within the footprints of the old and new "White Swan" public houses in the north-eastern corner and southern portion of the development area. Specifically, within the old "White

Swan", no features pre-dating the post-medieval period were revealed, whilst Roman ditches AL301 were truncated by the new "White Swan".

4.3 Pottery

4.3.1 Methodology

For each context, pottery was recorded by fabric type and quantified by minimum sherd count and weight. This information was entered onto the Context Assemblage Table in the project database. Pottery was also dated by individual fabric type and the date of the latest sherd used in the provision of an overall context spot date. The latter has been used to assist in the establishment of a provisional phasing structure (Tables 2 and 4).

4.3.2 Quantification

A total of 442 sherds, weighing 5.7kg was collected, the majority (by sherd count) deriving from the moat-related deposits (Phase 6), and structural and garden features associated with the old 'White Swan' (Phase 9).

4.3.3 Range and variety: the pottery type series

Fabrics are listed below (Table 5) in chronological order, using common names and type codes in accordance with the Bedfordshire Ceramic Type Series, currently maintained by Albion Archaeology on behalf on Bedfordshire County Council. In the absence of a county-wide type series, fabrics have been correlated, where possible, with the Roman (Marney 1989) and medieval/post-medieval (Mynard 1992) pottery type series for Milton Keynes. Bracketed figures represent total percentage (by sherd number) for each chronological period. One new fabric type was identified.

Fabric Type	Common name	Sherd No.
Roman (13%)		
Type R06A (Fabrics 12; 14b)	Nene Valley greyware	1
Type R06B (Fabric group 3)	Coarse greyware	19
Type R06C (Fabric group 3)	Fine greyware	11
Type R06D (Fabric group 3)	Micaceous greyware	2
Type R06F (Fabric group 3)	Grog and sand greyware	1
Type R06H (Fabric group 3)	White-slipped greyware	1
Type R07F (Fabric 9f)	Silty blackware	7
Type R10B	Fine buff gritty	1
Type R11 (Fabric 35)	Oxford oxidised ware	4
Type R13 (Fabric 1a)	Shell	1
Type R35	Grog	4
Type R40	Reduced sand	2
Type R	Non-specific Roman	2
Saxo-Norman (1%)		
Type B01A (SNC1)	St Neots-type ware (orange)	4
Type B01C (SNC1)	St Neots-type ware (mixed)	1
Medieval (47%)		
Type B07 (MC1)	Shell	57
Type B14** (similar to MSC1)	Limestone	3
Type B	Non-specific medieval shell	4
Type C	Non-specific medieval mineral	3
Type C01 (similar to MS2)	Sand	19
Type C09 (MS9)	Brill-Boarstall ware (fine)	64

Type C11 (MS9)	Brill-Boarstall ware (gritty)	12
Type C17	Hedingham ware	1
Type C21	Nuneaton-type	1
Type C59B (similar to MS2)	Sand	2
Type C60	Hertfordshire-type greyware	5
Type C61	Calcareous inclusions	5
Type C66 (TLMS7; TLMS9)	Late Transitional Brill	23
Type C67	Mixed inclusions	10
Late medieval (3%)		
Type E01 (TLMS3)	Reduced sand	11
Type E03	Smooth sand	1
Post-medieval / modern (35%)		
Type P01 (PM8)	Fine glazed red earthenware	68
Type P02 (PM8)	Coarse glazed red earthenware	4
Type P03 (PM16)	Black-glazed earthenware	11
Type P14	Blackware	2
Type P19 (PM41)	Mottle/speckle-glazed ware	1
Type P25 (PM29)	Frechen stoneware	2
Type P33 (PM21)	Tin-glazed ware	1
Type P35 (PM27)	English porcelain	1
Type P37 (PM22)	White salt-glazed stoneware	5
Type P39	Mocha ware	6
Type P43 (PM24)	Pearlware	7
Type P45	Transfer-printed ware	1
Type P47	Vitrified earthenware	1
Type P48	English stoneware	8
Type P52 (TLMS7; TLMS9)	Late Brill	5
Type P53 (PM5)	Potterspury slipware	2
Type P55 (PM25)	White earthenware	14
Type P	Non-specific post-medieval	11
MOD	Modern	8
UNID (<1%)	Undatable	2

** new fabric type

Table 5: *Pottery Type Series*

4.3.4 Provenance, phasing and date range

The assemblage contains pottery of Roman, Saxo-Norman, medieval, post-medieval and modern date. Composition of the assemblage suggests that the material was subject to variable processes of post-depositional disturbance or contamination. The degree of fragmentation is high, indicated by a low average sherd weight of 13g, and low vessel to sherd ratio. Few diagnostic forms occur. Forty-four features (71% of contexts producing pottery) contained less than 100g and only one feature yielded in excess of 500g.

4.3.4.1 Roman

Phase 3 (3% total assemblage)

Thirteen abraded pottery sherds (148g) datable to the Roman period were recovered from ditches AL301. They comprise reduced sand tempered coarsewares and a single shell tempered sherd, all of probable local manufacture. A triangular rim jar is the only diagnostic form.

4.3.4.2 Medieval

Phase 5 (4% total assemblage)

Ditches AL501 and pit AL502 yielded nine undiagnostic sherds (85g) broadly datable to the 12th-14th centuries. Both handmade and wheel-thrown vessels are present, in a range of predominantly sand tempered fabrics considered to be of local manufacture, including Hertfordshire-type greywares and Brill-Boarstall ware. Nine residual sand tempered Roman sherds (69g), including two highly abraded pieces of 3rd-4th century oxidised ware from Oxfordshire were also identified.

Phase 6 (45% total assemblage)
Features assigned to Phase 6 yielded 201 sherds, weighing 2.3kg. The majority of the assemblage was associated with moat-related features AL601 and AL602 which yielded approximately 1.8kg of pottery. The bulk of the assemblage is datable to the 13th-15th centuries and comprises products of the Brill-Boarstall kilns, Hertfordshire-type greywares, six sherds of late medieval reduced ware and a single sherd of Nuneaton ware. An early medieval component includes two bowl rim sherds of shell tempered St Neots-type ware datable to the post-conquest period, and seventy sherds in a range of 12th-13th century sand and shell tempered fabrics, including 49 sherds (415g) from one sooted cooking pot. All are likely to be of local manufacture. Forms include square and everted rim jars, glazed jugs with slashed strap handles and a cistern.

Residual Roman material comprises thirty-one abraded sherds (258g) of reduced sand tempered coarseware and two sherds of Oxford oxidised ware. Intrusive pottery is represented by three sherds (65g) of post-medieval glazed earthenware and a sherd of 18th-19th century mottle/speckled ware (23g).

4.3.4.3 Late medieval / early post-medieval (transitional)

Phase 7 (10% total assemblage)
Forty-five sherds weighing 633g derived from features assigned to Phase 7. Approximately half the assemblage comprises late medieval/transitional Brill-Boarstall ware and late medieval reduced wares. Diagnostic forms are jugs, bowls and a single cup or globular bowl. Residual early medieval material comprises sand tempered coarsewares, including a jar and flat rimmed bowl, the latter with a knife trimmed exterior. A highly abraded Roman sherd (12g) was also identified. A post-medieval component comprises single sherds of lead glazed earthenware, miscellaneous slipware and Potterspury slipware, the latter a regional import from Northamptonshire. Two pieces of modern flower pot (46g) were also present.

4.3.4.4 Post-medieval

Phase 8 (6% total assemblage)
Feature AL801, pits AL802 and layer AL803 yielded a small assemblage comprising twenty-eight sherds, weighing 323g. The majority comprise lead and iron glazed earthenwares and slipped wares of 17th-18th century date. Seven undiagnostic sherds of 18th-19th century pearlware, white earthenware and salt-glazed stoneware were also collected. Residual material comprises four sherds (30g) of high/late medieval pottery and an abraded sherd (23g) of Roman coarseware.

4.3.4.5 Modern

Phase 9 (18% total assemblage)
Seventy-four sherds, weighing 1kg derived from garden features AL901 and deposits associated with the old 'White Swan' AL902. The majority of the assemblage comprises residual material of Roman (1 sherd), medieval (4 sherds) and post-medieval date (53 sherds). The latter includes late transitional Brill-Boarstall ware, 17th-18th century locally manufactured lead and iron glazed earthenware, slipped ware, tin-glazed ware, blackware, German and English stoneware, and Staffordshire-type slipware. Forms are large bowls and a chafing dish. Sixteen sherds datable to the 18th-20th centuries comprise mocha ware, pearlware, white earthenware, English porcelain, salt-glazed stoneware and a brown glazed teapot lid.

Phase 10 (14% total assemblage)
Features assigned to Phase 10 yielded twenty-one modern sherds (344g), the majority deriving from the new 'White Swan' and associated buildings L1001. Fabrics represented are transfer-printed ware, mocha ware, pearlware, white earthenware and salt-glazed stoneware. Pieces of flower pot and a portion of a porcelain toilet bowl or sink were also present. Residual post-medieval types comprise thirty-four sherds of lead and iron glazed earthenwares, and a sherd of imported Frechen stoneware. Four undiagnostic sherds (90g) of high and late medieval date also occurred.

Phase	Assessment Landscape (AL)	Assessment Landscape Description	Sherd No : Wgt (g)
3	301	Ditches	13:148
5	501	Seven ditches and a remnant bank	8:93
	502	Pit	10:60
6	601	Possible moat and associated ditches, pond and layer	129:1440
	602	Side ditches to the possible moat	36:376
	605	Layers	14:199
	606	Limestone scatters	22:276
7	701	Irregular hollow and tree throw	18:346
	702	Ditch terminus	15:138
	703	Structural feature	12:149
8	801	Pit and possible up-cast layer	2:28
	802	Pits	6:15
	803	Layer	20:280
9	901	Garden features	29:265
	902	Old "White Swan" public house and associated features	45:776
10	1001	New "White Swan" public house and associated buildings	56:851
	1002	Features to the rear of the new "White Swan" public house	2:194
	1003	Uppermost turf and backfill deposits of the archaeological evaluation trenches	2:67
	1004	Topsoil	3:25
			442:5726

Table 6: *Pottery quantification by Phase and Assessment Landscape*

4.4 Ceramic building material

4.4.1 Methodology

For each context, ceramic building material (comprising brick/tile and fired clay) was recorded by fabric type and quantified by minimum fragment count and weight. This information was entered onto the Context Assemblage Table in the project database. Where possible, the brick and tile was also spotdated.

4.4.2 Quantification

Eighty-five pieces of brick and tile weighing 26.7kg and twelve fired clay fragments (94g) were collected.

4.4.3 Range, variety, provenance, phasing and date range

Sixty-one sand tempered peg tile fragments (3.6kg) of post-medieval and later date were recovered, the majority occurring as residual finds in Phase 9 features associated with the old 'White Swan' AL902. Five pieces recovered from Phase 6 moat-related features are thought to be intrusive. Fragments are fairly small with an average weight of 60g and generally unabraded. No complete tiles were collected: the only measurement recorded was their thickness, which range between 12-16mm. Five examples have circular fixing holes of between 10-12mm in diameter and nineteen are heavily mortared.

Bricks comprise twenty-one sand tempered fragments and three complete examples (total weight 22.1kg). The majority derived from features relating to the old and new 'White Swan' and associated buildings, AL902 (Phase 9) and AL1001 (Phase 10) respectively. Two fragments (219g) occurred as intrusive finds in moat related deposits AL601 (Phase 6). The bricks are a combination of moulded hand-made and machine pressed types, with both frogged and unfrogged examples occurring. They range in date between the 18th century and the present day. Complete examples include a blue engineering brick with an illegible motif and a frogged brick with an 'L B C' stamp, indicating manufacture by the London Brick Company. Three pieces of modern land drain (201g) were recovered from Phases 9 (AL902) and 10 (AL1002).

Phase	Assessment Landscape (AL)	Assessment Landscape Description	Frag No : Wgt (g)
6	601	Possible moat and associated ditches, pond and layer	6:478
	602	Side ditches to the possible moat	1:61
7	701	Irregular hollow and tree throw	7:424
	702	Ditch terminus	2:84
	703	Structural feature	2:942
8	803	Layer	5:346
9	901	Garden features	6:279
	902	Old "White Swan" public house and associated features	37:16028
10	1001	New "White Swan" public house and associated buildings	13:4545
	1002	Features to the rear of the new "White Swan" public house	5:3462
	1004	Topsoil	1:38
			85:26687

Table 7: *Brick and tile quantification by Phase and Assessment Landscape*

The fired clay assemblage comprises predominantly sand tempered amorphous fragments. One piece of daub retains surfaces and edges forming a right angle, and has a single wattle impression of *c.*15mm in diameter. Fragments are small, with an average weight of 8g. Two pieces derived from medieval pit AL502 (Phase 5) and the remainder from the moat and associated features AL601 and AL602 (Phase 6).

4.5 Other Artefacts

4.5.1 Methodology

For each context, artefacts were assigned a simple name and functional category, and quantified by number and/or weight. Where possible, artefacts were dated, and this information contributed to the overall context spotdate.

4.5.2 Quantification

The assemblage comprises thirty-one registered artefacts (mainly iron and copper alloy) and small quantities of clay tobacco pipe, iron nails, ferrous slag, mortar, lithic material, vessel glass and window glass (Table 8).

Material	Quantity
Antler	1
Bone and iron	1
Ceramic	59
Copper alloy	11
Iron	54
Glass	37
Mortar	910g
Plaster	1
Plastic	1
Slag (ferrous)	123g
Stone (burnt)	44g
Stone (worked)	22g

Table 8: *Registered and other artefacts by material*

4.5.3 Range, variety, provenance and date

The majority of the assemblage derives from modern features associated with the old 'White Swan' AL902 (Table 9). A scan of typologically datable artefacts indicates a range from the early 17th century to the present day. Most items relate to building fabric (window glass, wall plaster, mortar, roofing slate), structural fixtures and fittings (timber nails, staples, hasp, lamp shade) and domestic activity (tools, metal offcuts, glass vessels and bottles). Vessel glass includes colourless cylindrical and rectangular bottles, dark olive green wine bottles, a 19th century octagonal embossed medicine bottle and ink well, and a modern shot glass or small tumbler.

Personal items comprise a shoe iron, a rectangular copper alloy buckle, a 19th century livery or blazer button, a worn halfpenny from the reign of William III, George I or George II, and a number of post-medieval and later clay tobacco pipe stem and bowl fragments.

Phase 6 moat-related features AL601 and AL602 yielded a horseshoe branch, two shoeing nails of uncertain date, a small quantity (123g) of dense ferrous smelting (?) slag and a sawn and perforated antler tine, provisionally identified as either a netting tool or a horse cheek piece.

Phase	Assessment Landscape (AL)	Assessment Landscape Description	Artefact Summary *
6	601	Possible moat and associated ditches, pond and layer	Iron frags (RAs 1, 24); iron nail shank; clay pipe stem; iron shoeing nails (RAs 3, 6); ferrous slag (123g)
	602	Side ditches to the possible moat	Worked antler (RA 2); iron horseshoe (RA 8); clinker (2g)
	606	Limestone scatters	Iron nail
7	701	Irregular hollow and tree throw	Iron nail
8	802	Pits	Iron chain link (RA 25); iron nail x 2; vessel glass; window glass
	803	Layer	Copper alloy strip frag (RA 11); iron nail; window glass; vessel glass; clay pipe stem and bowl x 11
9	901	Garden features	Copper alloy offcut (RA 27); iron frag (RA 28); window glass; iron nail x 2; vessel glass x 2; clay pipe stem and bowl x 29
	902	Old "White Swan" public house and associated features	Bone knife handle (RA 5); copper alloy screw; button (RA 21); coin (RA 4); annular ring (RA 9); plastic soldier; handle (RA 7); latch (RA 14), wire (RAs 29, 30); buckle (RA 10); iron nail x 11; staple (RA 15); spiked loop (RA 12); hasp (RA 17); chisel (RA 18); shoeing nail (RA 13); shoe iron (RA 26); rod (RA 31); chain link (RA 16); screw; wedge (RA 19); vessel glass x 9; window glass x 17; clay pipe stem x 10; mortar (910g); coal (99g)
10	1001	New "White Swan" public house and associated buildings	Iron strip and hinge (RAs 20, 22); iron nail x 12; vessel glass x 3; clay pipe bowl and stem x 2
	1002	Features to the rear of the new "White Swan" public house	Iron vessel (RA 23); roof slate
	1003	Uppermost turf and backfill deposits of the archaeological evaluation trenches	Wall plaster fragment
	1004	Topsoil	Glass lamp shade; clay pipe stem and bowl x 6

* - single item unless otherwise stated

Table 9: *Registered and other finds by Phase and Assessment Landscape*

4.6 Plant and Insect Remains

4.6.1 Methodology

Fourteen bulk soil samples were taken during the excavation for the recovery of biological remains including plant remains and molluscs. The aim of the assessment was to establish the level of preservation, the item frequency and species diversity of any plant material and the potential for further work, in order to address the research questions relating to the site, i.e. information on the nature of the local environment and evidence of any human activities in the area.

The samples were taken from a range of features comprising; AL301, AL501, AL502, AL601, AL602, AL701 and AL902.

All the samples were ten litres in volume and processed on a modified Siraf flotation tank with sieve sizes of 0.25mm and 0.5mm for the recovery of the flot and residue respectively. All the samples produced flots, which together with the residues, were dried. The sample residues were sorted for biological

remains and artefactual remains. Processing information is summarised in Table 18 in Appendix 1.

The volume of each flot was measured with individual sizes ranging from 1ml to 50ml although the majority (twelve of the fourteen) of the flots were small with a size of only 10ml or less. The flots were put through a stack of sieves for ease of scanning using a binocular microscope. The item frequency and species diversity of all biological remains was recorded using the following rating system of 1 to 3:

Frequency: 1 = 1-10 items; 2 = 11-50 items; 3 = 50+ items
Diversity: 1 = 1-4 species; 2 = 5-7 species; 3 = 7+ species

The results were then entered onto a computer database with the biological contents listed by sample as shown in Table 19 in Appendix 1.

4.6.2 Quantification

Charred and 'waterlogged' plant remains were present in virtually all the samples with identifiable fruits and seeds in 12 of the 14 samples. Occasional beetle fragments were contained in one sample and a few water flea eggs were contained in another. Plant and insect remains recovered from the samples are listed by Phase in Table 10 below. Tables giving full details of the processed samples are contained in Appendix 1

Phase	Assessment Landscape	Assessment Group	Context	Sample	Constituent	Abundance	Diversity
3	301	301.01	2014	15	Waterlogged roots	1	Low
			2041	16	Charred seeds	1	Low
					Charred wood	3	Low
					Waterlogged roots	3	Low
5	501	501.01	1145	11	Charred seeds	1	Low
					Charred wood	1	Low
					Waterlogged roots	3	Low
					Waterlogged seeds	2	Low
5	502	502.01	2050	17	Charred wood	2	Low
					Waterlogged roots	3	Low
					Waterlogged seeds	1	Low
6	601	601.01	1193	4	Charred wood	2	Low
					waterlogged roots	3	Low
					waterlogged seeds	3	Med
					waterlogged wood	2	Low
			1295	9	Charred grain	1	Low
					Charred wood	2	Low
					Waterlogged roots	3	Low

Phase	Assessment Landscape	Assessment Group	Context	Sample	Constituent	Abundance	Diversity
					Waterlogged seeds	3	Low
			1294	10	Charred grain	1	Low
					Charred wood	3	Low
					Waterlogged seeds	3	Med
6	601	601.04	1249	7	Charred grain	1	Low
					Charred wood	1	Low
					Inv. ephippia	1	Low
					Waterlogged roots	3	Low
					Waterlogged seeds	2	Low
			1251	8	Charred grain	3	Low
					Charred seeds	2	Med
					Charred wood	2	Low
					Waterlogged roots	2	Low
					Waterlogged seeds	3	Med
					Waterlogged wood	2	Low
6	601	601.05	1065	13	Charred grain	1	Low
					Charred wood	3	Low
					Waterlogged roots	3	Low
					Waterlogged seeds	2	Low
6	601	601.06	1151	1	Charred grain	1	Low
					Charred seeds	1	Low
					Charred wood	3	Low
					Waterlogged roots	3	Low
					Waterlogged seeds	1	Low
6	602	602.01	1274	12	Charred grain	1	Low
					Charred wood	1	Low
					Waterlogged roots	3	Low
					Waterlogged seeds	2	Low
7	701	701.01	1202	5	Charred grain	2	Low
					Charred wood	2	Low
					Waterlogged roots	3	Low
					Waterlogged seeds	2	Low
9	902	902.08	1344	14	Inv. insects	1	Low
					Waterlogged misc.	1	Low
					Waterlogged seeds	3	High
					Waterlogged wood	3	Low

Table 10: *Plant and insect remains by Phase and Assessment Landscape*

4.6.3 Range, variety and provenance

4.6.3.1 Charred plant remains

Charred cereal grains were present in eight samples with a large amount of grains (100+) contained in Sample 8, taken from one of the medieval ditches AG601.04 (AL601) and moderate numbers in Sample 5, taken from pond AG701.01 (AL701). There were only occasional grains in the other six samples. The condition of this material was generally poor with many fragments not being identifiable. Identifiable cereals consisted mainly of wheat (*Triticum* spp.) including free-threshing grains (*Triticum aestivum/durum/turgidum*) and possibly glume wheats, emmer/spelt (*T. dicoccum/spelta*) in ditch fill AG601.04. The only definite barley (*Hordeum* sp.) grains were also noted in this context.

Charred seeds were present in four samples, although again mainly in only very small quantities, with the exception of a moderate amount of seeds contained in Sample 8 taken from one of the medieval ditches AG601.01 (AL601). These were mainly from weeds, eg. corn cockle (*Agrostemma githago*), stinking mayweed (*Anthemis cotula*), brome (*Bromus* spp.), all characteristic arable weeds. However, Sample 8 also contained legumes - possible horse bean (cf. *Vicia faba*) and vetch/tare/vetchling/pea (*Vicia/Lathyrus/Pisum* spp.)

Small amounts of charcoal were present in twelve samples. Most of this material was very fragmented and it is unlikely that much of it is identifiable with the exception of several fragments from one of the medieval ditches AG601.04 (AL601).

4.6.3.2 Waterlogged plant remains

Occasional seeds were noted in two samples; fairly frequent amounts with moderate species diversity in five samples; and large amounts of fruits and seeds in another five samples. There was high species diversity between seeds in Sample 14 taken from the modern cess pit AG902.08 (AL902). While seeds contained in Samples 4, 9 and 10, taken from fills of the possible moat AG601.01 (AL601), were of low to moderate species diversity. The seeds contained in Sample 8, taken from medieval ditch AG601.04 (AL601), also contained evidence for a moderate range of wild plants.

Most of the remains were from plants of wetland and disturbed (including cultivated) ground and waste places. Well represented wetland plants included the aquatic duckweed (*Lemna* spp.) (noted in eight samples with particularly large amounts in two of the fills from the possible moat AG601.01 (AL601)), semi-aquatic plants, eg. crowfoots (*Ranunculus Batrachium*), plus bankside/marshland species, eg. celery-leaved crowfoot (*R. sceleratus*), sedges (*Carex* spp.), rushes (*Juncus* spp.) and hemlock (*Conium maculatum*). There were good wetland plant assemblages in Samples 4 and 10 taken from the fills of the possible moat AG601.01 (AL601).

There was also a wide range of material from disturbed and waste ground plants with the greatest species diversity being in Sample 14 taken from the modern cesspit AG902.08 (AL902). The represented weeds included chickweeds (*Stellaria media*), stinging nettle (*Urtica dioica*), knotgrass (*Polygonum aviculare*), black bindweed (*Fallopia convolvulus*), fool's parsley (*Aethusa cynapium*), hawkbit (*Leontodon* spp.), thistles (*Carduus/Cirsium* spp.), docks (*Rumex* spp.), buttercups (*Ranunculus* spp.), henbane (*Hyoscyamus niger*), goosefoots/oraches (*Chenopodium/Atriplex* spp.), and several shrub/hedgerow plants, eg elder (*Sambucus nigra*), brambles (*Rubus* spp.). Some of these plants may also grow in grassland habitats.

Fragmented wood (including twigs) was present in several samples, particularly in Sample 14 from the modern cesspit AG902.08 (AL902). This sample also contained occasional bud fragments. Evidence of roots/rootlets was noted in twelve samples.

4.6.3.3 Invertebrate remains

There were occasional insect (beetle) fragments in Sample 14 taken from the modern cesspit AG902.08 (AL902) and a few Cladoceran ephippia (water flea eggs) in Sample 7 from a medieval ditch AG601.04 (AL601).

4.6.3.4 Summary

Identifiable plant remains were present in virtually all the samples and consisted mainly of wild plants preserved by 'waterlogging', particularly from wetland and disturbed/waste ground habitats. There was a moderate to high species diversity in a number of samples, especially in the samples from the modern cesspit AG902.08 (AL902); the samples from the possible moat AG601.01 (AL601); and the sample from medieval ditch AG601.04 (AL601). Charred plant remains, consisting mainly of cereal grains and also weed seeds, were plentiful in the sample from medieval ditch AG601.04 (AL601) and of a moderate amount in the sample from the late medieval/early post-medieval pond AG701.01 (AL701). There were also occasional grains in several samples from medieval features and one or two grains from Roman ditch AG301.01 (AL301). There were possible identifiable charcoal fragments in the sample from medieval ditch AG601.04 (AL601).

4.7 Molluscan Remains

4.7.1 Methodology

This report identifies, quantifies and interprets the mollusc shells that were hand collected as well as those that were retrieved during sample processing.

The methodology for processing the samples was as described in Section 4.6.1. The mollusc shells were recorded onto an Excel spreadsheet in terms of species-diversity, shell count and preservation. With the exception of the easily identifiable terrestrial snails; common/garden snail *Helix aspersa* and rounded/radiated snail *Discus rotundatus*, no attempt was made to determine any of the mollusc species.

The item frequency and species diversity of all biological remains was recorded using the following rating system of 1 to 3:

Frequency: 1 = 1-10 items; 2 = 11-50 items; 3 = 50+ items
Diversity: 1 = 1-4 species; 2 = 5-7 species; 3 = 7+ species

4.7.2 Quantification

An estimated 315 mollusc shells of both freshwater and terrestrial snails were recovered. Large numbers were contained in Samples 4, 5 and 16 recovered from, AG601.01, AG701.01 and AG301.01 respectively; and moderate numbers were contained in Sample 8 recovered from AG601.04 and Samples 9 and 10 recovered from AG601.01. Occasional snails were recorded in another six samples.

Table 11 below lists the molluscs recovered by Phase. Tables giving full details of the processed samples are contained in Appendix 1.

Phase	Assessment Landscape	Assessment Group	Context	Sample	Freshwater Mollusc	Terrestrial Mollusc	Preservation	NO.
3	301	301.01	2014	15		*Vallonia sp.*	good	2
			2014	15		snail species 1	good	1
			2041	16	Nil	*Cepaea sp.*	poor	1
			2041	16	Snail species 1		good	100
			2041	16		snail species 1	good	8
5	501	501.01	1145	11	Snail species 1		medium	1
	502	502.01	2050	17	Nil	snail species 1	good	1
6	601	601.01	1193	4	snail species 1		medium	80
			1193	4	snail species 2		medium	10
			1193	4		snail species 1	good	5
			1193	4		*Vallonia sp.*	good	10
			1294	10	snail species 1		good	10
			1294	10		*Vallonia sp.*	good	5
			1295	9		snail species 1	good	20
			1295	9	snail species 1		good	10
			1295	9		*Vallonia sp.*	good	1
		601.04	1249	7	Nil	nil	n/a	nil
			1251	8		*Vallonia sp.*	good	5
			1251	8		snail species 1	good	2
		601.05	1065	13		*Vallonia sp.*	good	1
		601.06	1151	1		*Vallonia sp.*	good	2
	602	602.01	1274	12		*Vallonia sp.*	medium	1
			1298	-		*Helix aspersa*	good	1
7	701	701.01	1202	5	snail species 2		medium	6
			1202	5		*Discus rotundatus*	good	1
			1202	5		*Vallonia sp.*	good	15
			1202	5		snail species 1	good	1
9	902	902.08	1344	14		snail species 1	medium	5
			1344	14		*Vallonia sp.*	good	10
		TOTAL						**315**

Table 11: *Molluscan remains by Phase and Assessment Landscape*

4.7.3 Range, variety and provenance

Freshwater snail species provided the majority, >200 shells, of the total mollusc assemblage. These derived largely from two unidentified snail species (snail species 1 and 2) of which snail species 1 was predominant.

Terrestrial snail species provided roughly one third, <100 shells, of the total mollusc assemblage. These derived largely from grass snail *Vallonia sp.*, with smaller numbers of common/garden snail *Helix aspersa*, brown or white-lipped snail *Cepaea sp.* and rounded/radiated snail *Discus rotundatus*. There was occasional recovery of an unidentified snail species (snail species 1). Snails of the genus *Vallonia sp.* are inhabitants of grassland and show considerable *inter-specific* variation in terms of their preference for damp or drier conditions; the other identified snails are all very much ubiquitous in moist, sheltered conditions in lowland southern England, particularly on base-rich soils.

No marine mollusc shells were recovered.

4.8 Animal bone

4.8.1 Methodology

The methodology for processing the samples was described in Section 4.6.1. Hand-collected and wet-sieved animal bone from the development area was recorded directly onto Excel spreadsheets. Each context and sample group was described in terms of weight (kg), estimated fragment count, species, carcase-part, fragmentation, preservation, modification, and the recovery of epiphyses, mandibular tooth rows, measurable bones, complete long bones, and sub-adult age groups. The assemblage was not recorded as individual fragments or identified to skeletal element. All identifications referred to the MoLSS reference collection. Fragments not identifiable to species or genus level were generally allocated to an approximate category, particularly unidentified mammal, 'ox-sized' and 'sheep-sized' as appropriate. Each context and sample assemblage was then grouped with the dating and feature description available at the time of writing.

4.8.2 Quantification

Hand collected animal bone totalled 344 fragments (7611g), whilst animal bone recovered from the samples totalled 27 fragments (13g).

Table 12 below gives a summary of the hand-collected and recorded wet-sieved animal bone in terms of weight (kg), estimated fragment count, fragmentation, preservation, faunal composition, and the recovery of evidence for ageing (mandibular tooth rows and epiphyses) and stature (measurable bones and complete longbones). Table 13 gives a detailed summary of the hand-collected context groups and recorded wet-sieved sample groups in terms of taxon, carcase-part, modification and the recovery of sub-adult age groups).

Phase	Assessment Landscape	Assessment Group	Context	Sample	Weight (kg)	Frag. (mm)	Preservation	Nos.	Large mammal	Bird	Mandibular Tooth rows.	Measurable	Epiphyses	Complete
3	301	301.01	2014	0	0.01	25-75	good	2	2	0	0	0	0	0
			2041	16	0.001	<25	good	1	1	0	0	0	0	0
	Phase 3 Totals				**0.011**			**3**	**3**	**0**	**0**	**0**	**0**	**0**
5	501	501.01	1305	0	0.065	>75	good	1	1	0	0	0	0	0
			1136	0	0.069	25-75	good	9	9	0	0	0	0	0
			1145	0	0.008	25-75	good	2	2	0	0	0	0	0
			1145	11	0.001	<25	good	1	1	0	0	0	0	0
			1325	0	0.008	25-75	good	2	2	0	0	0	0	0
	502	502.01	2050	0	0.018	25-75	good	1	1	0	0	0	0	0
		502.01	2050	17	0.001	<25	good	1	1	0	0	0	0	0
	Phase 5 Totals				**0.17**			**17**	**17**	**0**	**0**	**0**	**0**	**0**
6	601	601.01	1193	4	0.001	<25	good	3	3	0	0	0	0	0
			1293	0	0.141	>75	good	1	1	0	0	0	0	0
			1294	10	0.001	<25	good	3	3	0	0	0	0	0
			1295	0	0.446	>75	good	35	35	0	1	0	0	0
			1295	9	0.005	<25	good	4	4	0	0	0	0	0
			1190	0	0.205	>75	good	2	2	0	0	0	1	0
		601.02	1253	0	0.486	>75	good	5	5	0	0	0	2	0
			1232	0	0.036	25-75	good	15	15	0	0	0	10	0
			1235	0	0.556	>75	good	15	13	2	1	3	5	0
			1258	0	0.068	25-75	good	2	2	0	0	0	2	0
		601.04	1251	0	0.183	>75	good	1	1	0	0	0	1	0
			1251	8	0.002	<25	good	6	6	0	0	0	0	0
		601.05	1065	0	1.253	>75	good	57	57	0	0	0	0	0
		601.06	1151	1	0.001	25-75	good	3	1	2	0	0	0	0
			1147	0	0.031	25-75	good	25	25	0	0	0	0	0
	602	602.01	1301	0	0.33	>75	good	15	14	1	0	1	1	0
			1274	0	0.201	>75	good	2	2	0	2	0	0	0
			1288	0	0.185	>75	good	1	1	0	0	0	0	0
			1298	0	0.181	25-75	good	15	15	0	0	0	0	0
	605	605.01	1059	0	0.014	>75	good	5	5	0	0	0	0	0
	606	606.01	1028	0	0.012	>75	good	1	1	0	0	0	0	0
			1230	0	0.221	>75	good	1	1	0	0	1	2	1

Phase	Assessment Landscape	Assessment Group	Context	Sample	Weight (kg)	Frag. (mm)	Preservation	Nos.	Large mammal	Bird	Mandibular Tooth rows.	Measurable	Epiphyses	Complete
	Phase 6 Totals				**4.559**			**217**	**212**	**5**	**4**	**5**	**24**	**1**
7	701	701.01	1186	0	0.102	>75	good	11	11	0	0	0	2	0
			1123	0	1.6	>75	good	30	30	0	0	3	5	3
			1202	5	0.001	<25	good	4	4	0	0	0	0	0
	702	702.01	1238	0	0.102	>75	good	4	4	0	0	0	0	0
	703	703.01	2010	0	0.05	25-75	good	1	1	0	0	0	0	0
	Phase 7 Totals				**1.855**			**50**	**50**	**0**	**0**	**3**	**7**	**3**
8	802	802.01	1103	0	0.018	25-75	good	3	3	0	0	0	2	0
	803	803.01	1084	0	0.019	25-75	good	3	3	0	0	0	0	0
			1066	0	0.142	>75	good	5	5	0	0	0	1	0
			1049	0	0.063	25-75	good	7	7	0	0	0	0	0
			1017	0	0.049	>75	good	3	3	0	0	0	0	0
	Phase 8 Totals				**0.291**			**21**	**21**	**0**	**0**	**0**	**3**	**0**
9	901	901.01	1024	0	0.006	25-75	good	3	2	1	0	0	0	0
			1026	0	0.027	25-75	good	2	2	0	0	0	0	0
			1030	0	0.013	25-75	good	4	3	1	0	0	0	0
		901.02	1018	0	0.249	>75	good	24	24	0	0	0	1	0
			1034	0	0.024	>75	good	2	2	0	0	0	1	0
	902	902.03	1094	0	0.013	>75	good	1	1	0	0	0	0	0
			1083	0	0.1	>75	good	7	7	0	0	0	1	0
		902.08	1344	14	0.002	<25	good	1	1	0	0	0	0	0
		902.12	1098	0	0.065	25-75	good	5	5	0	0	0	0	0
	Phase 9 Totals				**0.499**			**49**	**47**	**2**	**0**	**0**	**3**	**0**
10	1001	1001.03	1069	0	0.162	>75	good	5	5	0	0	0	2	0
		1001.05	1003	0	0.037	25-75	good	5	5	0	0	0	0	0
			1004	0	0.032	25-75	good	2	2	0	0	0	0	0
	1002	1002.03	1057	0	0.007	25-75	good	1	1	0	0	0	0	0
	1004	1004.01	1013	0	0.001	25-75	good	1	1	0	0	0	0	0
	Phase 10 Totals				**0.239**			**14**	**14**	**0**	**0**	**0**	**2**	**0**
	GRAND TOTAL				**7.624**			**371**	**364**	**7**	**4**	**8**	**39**	**4**

Table 12: *Hand collected and wet sieved animal bone*

Phase	Assessment Landscape	Assessment Group	Context	Sample	Taxon	Part	Age	State
3	301	301.01	2014	0	ox-sized	longbone		
			2041	16	sheep-sized	longbone		
5	501	501.01	1305	0	Ox	upper limb		butchered
			1325	0	sheep/goat	head	young adult	
			1136	0	Ox	head		
			1136	0	sheep/goat	upper limb		
			1136	0	sheep-sized	vertebra	juvenile	
			1145	0	sheep-sized	rib		
			1145	0	sheep-sized	longbone		
			1145	11	sheep-sized	longbone		
5	502	502.01	2050	17	mammal, unid.	unid.		
			2050	0	Ox	head	mature	
6	601	601.01	1193	4	sheep-sized	longbone		
			1293	0	Ox	upper limb		butchered
			1294	10	sheep-sized	longbone		
			1295	0	Horse	head	mature	
			1295	0	Ox	head	mature	
			1295	0	Pig	head	mature	
			1295	9	sheep-sized	longbone		
			1190	0	Ox	upper limb		butchered
		601.02	1232	0	sheep/goat	toe	mature	
			1232	0	sheep/goat	lower limb	juvenile	
			1232	0	sheep-sized	vertebra	juvenile	
			1253	0	Horse	upper limb	mature	
			1253	0	Ox	lower limb		
			1235	0	Goose	lower limb		
			1235	0	Goose	wing		
			1235	0	Goose	foot		butchered
			1235	0	Ox	upper limb	mature	
			1235	0	Ox	head	mature	
			1235	0	sheep/goat	lower limb	juvenile	
			1258	0	Ox	lower limb	mature	
			1258	0	Ox	upper limb	mature	
		601.04	1251	0	Ox	upper limb		
			1251	8	sheep-sized	longbone		
			1251	8	sheep-sized	longbone		calcined
		601.05	1065	0	Horse	head	mature	
		601.06	1147	0	sheep-sized	longbone		
			1151	1	Goose	wing		
			1151	1	sheep-sized	longbone		
	602	602.01	1274	0	Cat	head	juvenile	
			1274	0	Ox	head	mature	
			1298	0	Horse	head	mature	
			1298	0	Ox	head	mature	
			1298	0	Pig	head	mature	
			1301	0	Ox	upper limb		
			1301	0	Ox	foot		

Phase	Assessment Landscape	Assessment Group	Context	Sample	Taxon	Part	Age	State
			1301	0	Pig	upper limb	juvenile	butchered
			1301	0	sheep/goat	upper limb		
			1288	0	Ox	lower limb		
	605	605.01	1059	0	sheep-sized	rib		
	606	606.01	1028	0	sheep/goat	lower limb		
			1230	0	Ox	foot	mature	butchered
7	701	701.01	1186	0	Ox	toe	mature	
			1186	0	ox-sized	longbone		
			1186	0	Pig	upper limb		
			1186	0	sheep-sized	longbone		
			1123	0	Horse	toe	mature	
			1123	0	Horse	upper limb		
			1123	0	Ox	foot	mature	
			1123	0	Ox	head	mature	
			1123	0	Ox	toe	mature	
			1123	0	Pig	upper limb		
			1123	0	Pig	head	young adult	
			1123	0	sheep	horncore	mature	
			1202	5	sheep-sized	unid.		
	702	702.01	1238	0	Ox	lower limb		
			1238	0	Ox	head		
	703	703.01	2010	0	Ox	upper limb		
8	802	802.01	1103	0	Pig	head		
	803	803.01	1017	0	Horse	head	mature	
		803.01	1017	0	ox-sized	rib		butchered
		803.01	1017	0	sheep-sized	rib		
		803.01	1066	0	Ox	foot		
		803.01	1066	0	ox-sized	vertebra		
		803.01	1066	0	Pig	lower limb		
		803.01	1084	0	Pig	lower limb		
		803.01	1084	0	sheep-sized	rib		
		803.01	1049	0	Pig	upper limb		butchered
		803.01	1049	0	Pig	lower limb		
9	901	901.01	1024	0	Chicken	lower limb		
			1024	0	Pig	head		
			1024	0	sheep-sized	vertebra		butchered
			1026	0	Horse	foot		butchered
			1026	0	sheep/goat	upper limb		
			1030	0	Chicken	upper limb		butchered
			1030	0	ox-sized	longbone		
			1030	0	sheep-sized	longbone		
		901.02	1018	0	Horse	lower limb	mature	
			1018	0	Ox	foot		
			1018	0	ox-sized	longbone		
			1018	0	sheep-sized	rib		
			1034	0	Ox	upper limb		butchered
			1034	0	sheep/goat	foot		
	902	902.03	1083	0	Ox	head	mature	
			1083	0	Pig	head		

Phase	Assessment Landscape	Assessment Group	Context	Sample	Taxon	Part	Age	State
			1083	0	sheep/goat	lower limb		
			1094	0	sheep/goat	lower limb		
		902.08	1344	14	sheep-sized	longbone		
		902.12	1098	0	ox-sized	rib		
			1098	0	sheep/goat	vertebra	mature	
			1098	0	sheep/goat	lower limb		
			1098	0	sheep-sized	rib		butchered
10	1001	1001.03	1069	0	Ox	foot		
			1069	0	ox-sized	longbone		
			1069	0	Pig	lower limb		
			1069	0	sheep/goat	upper limb		
		1001.05	1003	0	ox-sized	head		
			1004	0	Ox	foot		
			1004	0	Pig	upper limb		
	1002	1002.03	1057	0	sheep/goat	lower limb		
	1004	1004.01	1013	0	sheep-sized	longbone		

Table 13: *Hand collected and wet sieved animal bone in terms of taxon*

4.8.3 Range, Variety and Provenance

4.8.3.1 Summary, Roman (Phase 3)

Contexts assigned to Phase 3 produced 0.011kg, three fragments, of well-preserved animal bone with fragment sizes of up to 75mm. The bones consisted of ox-sized and sheep-sized longbone fragments. There was no evidence for modification.

4.8.3.2 Summary, Medieval (Phase 5 and 6) and late medieval/early post-medieval transitional (Phase 7)

Contexts assigned to medieval and late medieval/early post-medieval phases produced 6.584kg, estimated 284 fragments of well preserved hand-collected and wet-sieved animal bone with fragment sizes ranging between <25 and >75 mm. The assemblage derived largely from ox *Bos Taurus and* sheep/goat *Ovis aries/Capra hircus*, with fragments of ox-sized and sheep-sized vertebra, rib and longbone. There was also occasional recovery of pig *Sus scrofa,* horse *Equus caballus,* goose and cat *Felix catus*.

Cattle were represented by elements from the head, upper limb, lower limb, foot and toe; sheep/goat by elements from the head, the horncore, upper limb, lower limb and toe; pig by head and upper limb; horse by head, upper limb and toe. A single fragment of adult sheep *Ovis aries* horncore was recovered from AG701.01 and a fragment of a juvenile cat *Felix catus* head was recovered from AG602.01. Four goose bone fragments were recovered from AL601, represent by elements from the lower limb, wing and foot. There was no definite identification of goat *Capra hircus* and no recovery of game, commensals, scavengers or, indeed, any wild species.

The majority of bones from Phases 5, 6 and 7 were derived from mature animals. The exceptions were, a young adult sheep/goat head fragment and a

juvenile sheep-sized vertebral fragment from AL501; two juvenile sheep/goat lower limb fragments and a juvenile sheep-sized vertebral fragment from AL601; a juvenile cat head fragment and juvenile pig upper limb fragment from AL602; and a young adult pig head fragment from AL701.

Clear evidence of butchery was noted only on, an ox upper limb fragment from AL501; two ox upper limb fragments and a goose foot fragment from AL601; a pig upper limb fragment from AL602; and an ox foot fragment from AL606. A fragment of sheep-sized longbone from AL601 had been calcined, indicating combustion at a high temperature. There was no other evidence for modification.

Evidence suitable for age determination was provided by four mandibular tooth rows and 31 epiphyses. There were eight measurable bones and four complete bones.

4.8.3.3 Summary, post-medieval (Phase 8)

Contexts assigned to Phase 8 produced 0.291 kg, estimated 21 fragments of well-preserved hand-collected animal bone with fragment sizes ranging between 25 and >75 mm. The assemblage was derived from pig *Sus scrofa*, ox *Bos taurus* and horse *Equus caballus*, as well as fragments of ox-sized and sheep sized rib and vertebra fragments.

Pig was represented by elements from the head, lower limb and upper limb; cattle were represented by the foot only; and horse by the head only. There was no definite identification of goat *Capra hircus* and no recovery of game, poultry, commensals, scavengers or, indeed, any wild species.

All the bones were derived from mature animals. Clear evidence of butchery was noted only on an ox-sized rib from AL803.

Evidence suitable for age determination was provided by only three epiphyses. There were no measurable or complete bones.

4.8.3.4 Summary, Modern (Phases 9 and 10)

Contexts assigned to Phases 9 and 10 produced 0.738 kg, estimated 63 fragments of well-preserved hand-collected and wet-sieved animal bone with fragment sizes ranging between <25 and >75 mm.

The assemblage derived largely from sheep/goat *Ovis aries/Capra hircus* and ox *Bos taurus* with fragments of sheep-sized and ox-sized head, vertebra, rib and longbone. There was also occasional recovery of pig *Sus scrofa,* horse *Equus caballus* and chicken *Gallus gallus*.

Sheep/goat were represented by elements from the upper and lower limb, vertebra and foot; cattle were represented by elements from the head, upper limb and foot; pig were represented by elements from the head, and upper and lower limb; horse were represented by the lower limb and foot; and chicken by upper and lower limb. There was no definite identification of goat *Capra*

hircus and no recovery of game, commensals, scavengers or, indeed, any wild species.

There was no definite recovery of sub-adult animals. Clear evidence of butchery was noted on, sheep-sized vertebra, an ox upper limb, horse foot and chicken upper limb from AL901; and sheep-sized rib from AL902. There was no other evidence for modification.

Evidence suitable for age determination was provided by only five epiphyses. There were no measurable or complete bones.

5. ANALYTICAL POTENTIAL OF THE DATA

5.1 Introduction

In this section the analytical potential of each data-set is reviewed against the original and revised research objectives. The original research objectives are listed in Table 14.

The continued relevance of each of these original objectives was challenged during the production of the following text, and a revised set of *research objectives for analysis* was created and is described in Section 6, Table 15. The changes have been implemented as a result of the quality and type of data recorded during the investigations which is, inevitably, different in certain ways to that predicted prior to the mitigation works.

5.2 Contextual Data

The majority of contextual data were 'negative' features, such as pits; ditches; and postholes; together with a smaller quantity of positive features consisting of, medieval and post-medieval layers and modern building remains.

Apart from those pieces of land affected by the footprints of modern buildings, the remains have suffered relatively little truncation. The presence of the medieval remnant bank deposit and medieval layers in the northern half of the development area demonstrate the relatively undisturbed character of the land. Indeed, this was also the part of the site that contained stratified medieval, post-medieval and modern features and deposits. The stratigraphic relationships recorded in this part of the site have been invaluable in dividing the contextual data into groups and phases where no (or relatively little) datable artefactual material was recovered.

The contextual data-set has a high to moderate potential to contribute to original research objectives 1 and 2 (Table 14) in establishing the date, nature and extent of activity or occupation and the character of any pre-medieval (especially Roman) activity. These objectives have been assessed for relevance, and developed into three new objectives for analysis (Table 15, objectives 1, 2, 3) more suited to our data-sets. In the case of the contextual data-set these retain a moderate to high potential to add new, useful information.

There is a moderate potential for this data-set to contribute to original objective 4 (Table 14), concerning the morphological development of Westcott. This subject will now be considered within two new objectives (Table 15, objectives 4 and 6) concerning the development of Westcott as a whole for which this data-set retains a moderate potential.

The lack of evidence for commercial or manufacturing related deposits (Table 14, objective 6) indicates there is little potential for information regarding specialisation of function during the medieval period. However, the contextual data-set retains a low potential with respect to providing new data

on domestic and agricultural related deposits. These subjects will now be considered within new objectives (Table 15, objectives 2, 6 and 7) concerning the nature and function of the moated site and the economy in medieval and post-medieval Westcott. This data-set holds a low-moderate potential to contribute to these new objectives.

This data-set has a low-moderate potential to contribute to certain elements within original objectives 7, 8 and 9 (Table 14). These elements have been extracted and will now be considered within new, more specific objectives concerning the Roman trackway, medieval moated site and the other settlement related medieval features which were investigated (Table 15, objectives 1-8). The data-set now retains a low-high potential to contribute to these various objectives.

The data-set indicates there is no potential for information regarding the establishment of the 'cotes' around Westcott or village planning (Table 14, objective 5) and these subjects will not be addressed during analysis. Likewise, due to the absence of medieval boundary/trackway deposits (Table 14, objective 3) will not be the subject of analysis.

5.3 Documentary, cartographic and photographic sources

Documentary, cartographic and photographic sources cannot be ignored as a supplementary tool for analysis. A certain amount of exploratory documentary research has already been undertaken. This included consultation of data held within the Buckinghamshire Sites and Monuments Record as well as historic maps held in the Centre for Buckinghamshire Studies

With regard to the later development of the site, these sources have a moderate potential for contributing to original research objective 1 (Table 14) in establishing the date, nature and extent of activity or occupation. This subject will now be considered within three new objectives (Table 15, objectives 4, 5 and 6) concerning the moated site within its wider context and the use of the land subsequent to the abandonment of the moat.

In light of the results of the excavation, available documentary, cartographic and photographic sources will be examined in more detail during the analysis phase of the project. The examination will focus in particular on how the moated site, investigated as part of this project, may relate to other moats in the vicinity. Its environmental and topographical setting will also be considered. In these instances the documentary data-set is considered to have a moderate to high potential for analysis (Table 15, objectives 4 and 5).

The appearance and decline of various modern buildings recorded at the site will also be explored using this data-set for which it has a high potential (Table 15, objective 6).

5.4 Ceramics

The sample of pre-medieval material is largely residual and too small to be of particular value, although indicates Roman activity within the study area. The post-medieval and modern assemblage is predominantly associated with phases of construction and use of the old and new 'White Swan', and has a relatively modest potential to contribute to any of the original research objectives. The same is true of the ceramic building material, which mainly comprises roof tile and bricks of post-medieval and modern date.

The medieval pottery associated with Phases 5-7 constitutes over half the total ceramic assemblage. The material spans the 12-15th centuries and comprises a fairly standard range of predominantly locally manufactured fine and coarse wares. Evidence for use of the pottery and the range of vessel forms are indicative of a predominantly domestic assemblage. As a result of the above, the ceramic assemblage held only a low potential to contribute to original research objectives 1, 2 and 4 (Section 5.3 and Table 14).

Its main value lies in the fact that the pottery will augment our knowledge on the distribution of ceramic fabrics and forms recovered from moated sites of this period (objective 3, Table 15) for which it retains a moderate potential. Also, the pottery assemblage can be usefully compared with pottery from contemporary moated and other settlement sites in the immediate region, for which it also retains a moderate potential (objective 9, Table 15).

5.5 Other Artefacts

The size and nature of the other artefact assemblage allow only limited conclusions to be drawn regarding the character and date of activity at this location. Typologically datable artefacts range mainly from the early 17th century to the present day, the majority deriving from modern features associated with the construction and use of the old 'White Swan'. These retain a very low analytical potential.

A small part of the assemblage does retain analytical potential, albeit a relatively low potential to contribute to original objectives 1 and 4 (Section 5.4 and Table 14). This comprises the portion which was recovered from Phase 6 features (associated with the possible moat), that yielded a horseshoe branch, two shoeing nails of uncertain date, a small quantity of ferrous slag and a worked antler tine, provisionally identified as either a netting tool or a horse cheek piece. No recognisably pre-medieval finds were recovered.

Having revised our objectives this data-set is now considered to hold a low-moderate potential to augment our knowledge on revised objectives 2, 3 and 6 (Table 15).

5.6 Plant and Insect Remains

Charred plant remains and waterlogged plant remains were present in virtually all the samples, with identifiable fruits and seeds in twelve of the fourteen samples.

Because of the topics originally selected for potential analysis (Table 14), this data-set retained a low potential to add new data regarding objective 1 and a moderate potential to assist with our understanding of objectives 6 and 9 (table 14.

Having revised these objectives, the plant remains in the samples have the potential to provide fairly detailed (high value) information on the character of the local environment within and in the vicinity of the development area during the medieval period (objective 8, Table 15). Evidence concerning economic/human activities at the site is limited mainly to the cereal grains and possibly legumes, which may provide low value information on the range of foodstuffs being used during the medieval and early post-medieval periods. Potentially more detailed, high value information on crop husbandry (objective 7, Table 15) may be obtained from the larger cereal assemblage and arable weeds contained in the sample taken from medieval ditch fill AG601.04.

This data-set also retains the potential to assist in a low-level way with our understanding of the nature and function of the moated site (objective 2, Table 15).

The paucity of insect (beetle) remains in the samples, however, means that they have no potential to contribute to any of the original or new research objectives. No further investigation of this material will be undertaken.

5.7 Molluscan Remains

Both freshwater and terrestrial molluscs were recovered from the samples. Large numbers were contained in the Roman ditch AG301.01, the possible medieval moat AG601.01, and a large hollow (AG701.01) dated to the late medieval/early post-medieval period. Moderate numbers were contained in further features dated to the medieval period.

The molluscan assemblage offers limited, but definite potential for ecological interpretation of local terrestrial and particularly, freshwater, habitat. The assemblage has no potential to contribute to the original research objectives. However, it does have a high potential to contribute to a new objective concerning the environmental conditions during the medieval period and possibly to a lesser degree the, Roman period (objective 8, Table 15).

It also retains a low potential to augment our knowledge on the function of the moated site, specifically whether it contained standing water or whether it was seasonally dry, and possibly linked to drainage during wet weather (objectives 2 and 4, Table 15).

5.8 Animal Bone

Hand-collected and wet-sieved animal bone was recovered from Roman, medieval, late medieval/early post-medieval, post-medieval and modern features.

This assemblage has a low potential to contribute to original objectives 1, 2, 6 and 9, with regard to our knowledge of the nature of activity, the diet of inhabitants and the character of the economy.

However, these objectives have been replaced by new, more suitable objectives for which the faunal remains hold more relevance. Specifically, the assemblage has potential for further study of the local meat diet in all periods. This data-set retains a moderate relevance to revised objective 7 (Table 15), with regard to transition from the medieval to the post-medieval periods and the diet and economy of those periods.

Also, the data-set may hold a low potential in relation to revised objective 2 (Table 15), in relation to standards of living amongst the medieval privileged classes, some of whom, it is assumed may have occupied the site.

In view of the absence of amphibians, small mammals and other wild species from the bone assemblage, there is no potential for interpretation of the local habitat.

	Objective	Contextual	Documentary Sources	Ceramic	Other Artefacts	Plant and Insect Remains	Molluscan Remains	Animal Bone
1	To establish the date, nature and extent of activity or occupation in the development site.	High	Moderate	Low	Low	Low	-	Low
2	To establish the character and extent of pre-medieval activity on the site. In particular, Roman activity (as was revealed in the evaluation) and any evidence for Saxon activity.	Moderate	-	Low	-	-	-	Low
3	To Investigate the nature, date and shape in plan of a possible medieval boundary/track way identified during evaluation. Particular attention to be given to gaining information relating to the origins and evolution of the settlement, the laying out of plots etc.	-	-	-	-	-	-	-
4	Given the presence of substantial stratified medieval and post-medieval deposits, record the character and chronological evolution of these deposits in order to better understand the morphological development of the village.	Moderate	-	Low	Low	-	-	-
5	Seek to establish the date of earliest Saxon/medieval occupation; when were the outlying 'cotes' around Westcott established and was there any regulated planning involved or was development piecemeal?	-	-	-	-	-	-	-
6	Identify and record any domestic, agricultural, commercial or manufacturing related deposits, paying attention to any evidence for specialisation of function in the early medieval period.	Low	-	-	-	Moderate	Low	Low
7	With regard to the Roman remains identified in the evaluation; the themes of **Rural settlement, landscape and society** (Taylor 2006, 157, para.4) and **Rural settlement** (English Heritage 1997, T3) identified in regional and national research frameworks are potentially relevant.	-	-	-	-	-	-	-
8	With reference to the medieval and post-medieval structural and occupation remains, the following themes identified in regional and national frameworks are potentially relevant: **Rural settlement: nucleated villages** (Lewis 2006a, 212, para.1, 2 and 4); **The medieval landscape of the Chiltern dipslope: a brief outline of the administration and infrastructure of the countryside around St. Albans (**Hunn 1995, 55); **Transition from medieval to post-medieval traditions (c. 1300-1700 AD)** (English Heritage 1997, PC7); **Rural settlement** (English Heritage 1997, T3).	Low	-	-	Low	-	-	-

	Objective	Contextual	Documentary Sources	Ceramic	Other Artefacts	Plant and Insect Remains	Molluscan Remains	Animal Bone
9	With particular reference to the putative moat, the following theme identified in a regional framework is potentially relevant; **The manor: Moated manorial sites** (Lewis 2006b, 212, para.2	Moderate	-	-	-	Moderate	-	Low

Table 14: *Potential of recovered data-sets to address the original research objectives*

6. RESEARCH OBJECTIVES FOR ANALYSIS

6.1 Introduction

Nine research objectives for analysis have been identified. These refine, amalgamate and build on some of the original objectives listed in Table 14, Section 5.

The potential (low, moderate, high) for each data-set to contribute to these revised research objectives was discussed in Section 5 and is presented in an easily digestible format in Table 15 (this section). The purpose of the following text is to clearly define these revised objectives. These will provide a structure from which the forthcoming publication text will be derived.

6.2 Research Objectives

6.2.1 Objective 1 - What is the nature and function of the parallel Roman ditches, and what is their relationship to known contemporary settlements and the morphology of Westcott?

Three features and a small amount of pottery were revealed dating to the Roman period. Though this reflects only a small amount of Roman activity in the vicinity, the possibility that the two parallel ditches are a trackway is of some interest.

It is hoped that further contextual analysis, namely the comparison of these features with other nearby, contemporary remains, will be of value in placing these features within a wider context. By so doing we may be able to shed further light on the use of the local landscape during the Roman period.

6.2.2 Objective 2 - What was the nature and function of the putative moated site?

The definition of a moated site is often ambiguous, as their characteristics are variable and easily confused with other types of site. "*A moated site may be defined as an area of ground, often occupied by a dwelling or associated structure, bounded or partly bounded by a wide ditch, which in most cases was intended to be filled with water, the whole usually dating from the later part of the medieval period*" (Taylor 1978, 5). And Aberg (ed, 1978) has noted frequently they are not easily classified with regard to their purpose or function. However, the unifying feature is the presence of a wide ditch that was filled with water when the *moated site* was in use.

As stated in Section 3.7.1, the evidence gathered during these investigations strongly suggests that certain elements within Phase 6 represent a medieval moated site. The contextual and other artefact data-sets will help to elucidate the nature and function of the moated site.

Such sites had an important impact on local habitat (as they represent a significant quantity of standing freshwater) and may be able to tell us much about the local economy, settlement pattern and the possible class divisions

within society during the medieval period. Moated sites must be seen in their wider economic and social context and in this regard the ecofactual evidence may aid in the interpretation of the function and status of the moated site.

6.2.3 Objective 3 – Within what date range was the moated site in use?

The principle period for the construction of moated sites spans the 350 years between AD1150 and AD1500 (Patourel and Roberts 1978, 46). However, distinct phases of construction, reflecting social and economic trends, have been identified within this period.

The analysis will attempt to refine the date range for the construction and use of this moated site. Such information would be very useful placing it within a social and economic context, and would allow comparison with other sites of the same date/type. The ceramic data-set will be particularly useful in trying to achieve this, while the contextual and other artefacts data-set may also hold some analytical value.

6.2.4 Objective 4 - What is the relationship of the moated site to the surrounding terrain in both physical and organisational terms?

Westcott is located between the catchments of the River Ray and the River Thame within the Vale of Aylesbury. Though no stream runs through the village, it is in an area of low-lying land naturally conducive to the collection of water. The number of extant natural and artificial water filled features in the village is testimony to this.

As well as considering social and economic influences on the function of a moated site, its practical uses within a particular environmental context must also be considered. For instance, a series of moated sites would have helped with the drainage of nearby, potentially seasonally waterlogged, farmland. Patourel and Roberts (1978, 47) identify the relationship of the moated site to its surrounding terrain as an important area of study.

A combination of the contextual, documentary and environmental data-sets will be utilised in order to address this topic.

6.2.5 Objective 5 - What is the relationship of the moated site with medieval Westcott and other water-filled features in the vicinity?

Several moats, fishponds and other water-filled features have been identified in Westcott. Some survive as earthworks, whilst others are known from documentary sources. This relatively high number of water-filled features suggests that the moated site investigated as part of this project, may be part of a network of similar features.

The moated site at the White Swan needs to be understood within this wider local context, in order to aid our understanding of its function and status. A study of the documentary sources (in particular 19th century maps) has the potential to aid our understanding of this context, still visible prior to 20th century re-development within the village.

6.2.6 Objective 6 – What use was this land put to after the abandonment of the moated site?

It is important to reflect on how land-use within the development area changed after the abandonment and infilling of the moated site. Indeed, the overlap between the medieval and post-medieval periods has been identified as an important research theme (English Heritage 1997, 45). Social and economic trends visible in the archaeological record on this site will be considered within the context of Westcott as a whole.

A series of remains, some structural, dating to the post-medieval and modern periods have been identified. Their likely function and date-range has been summarised during this assessment. Therefore, while no new analytical work will be undertaken, the data which has already been collated using the contextual and artefactual data-sets as well as documentary sources will be used to help realise this objective.

6.2.7 Objective 7 - What can we learn of the local diet and economy during the medieval and post-medieval periods?

Information regarding diet and agricultural practices will enhance our combined knowledge regarding the diet and economic base of local people. It may also be possible to relate this information to the wider social and economic trends.

The animal bone assemblage has some limited potential for further study of the local meat diet and patterns of waste disposal, particularly with reference to carcass-part selection and, to a lesser extent, age at death, of the major domesticates; cattle, sheep/goat, pig and horse.

Basic information on the range of foodstuffs being used during the medieval and early post-medieval periods may be deduced from analysis of the cereal grains and legumes obtained from the samples. More detailed information on crop husbandry may also be obtained, particularly from the larger cereal assemblage and arable weeds that were contained in medieval ditch AG601.04.

6.2.8 Objective 8 - What palaeo-environmental conditions prevailed during the Roman, medieval and post-medieval periods in the vicinity of the Site?

Only a small amount of archaeological excavation has taken place in Westcott, which increases the importance of any recovered palaeo-environmental material. This environmental information may provide general data on local habitat and crop types at various times. It may also help to answer more specific questions about the function of the moated site, particularly with regard to water flow, quality and local drainage systems.

The plant remains and molluscs obtained from the samples will have the highest potential to provide detailed information on the above points.

With particular reference to the molluscs, identification to species level of the terrestrial *Vallonia sp*. and snail species 1; and the freshwater snail species 1

and 2, will allow some comment on the local soil chemistry, drainage, vegetation and water flow on the Site during the above periods.

6.2.9 Objective 9 - To augment our knowledge on the types, and distribution of, ceramic fabrics and forms recovered from medieval moated sites

The range of pottery vessel forms present, are indicative of a predominantly domestic assemblage. The main value of this material lies in its potential to augment our knowledge on the distribution of ceramic fabrics and forms recovered from moated sites of this period, and within this region.

	Objective	Contextual	Documentary Sources	Ceramic	Other artefacts	Plant and Insect remains	Molluscan remains	Animal Bone
1	What is the nature and function of the parallel Roman ditches, and what is their relationship to known contemporary settlements and the morphology of Westcott?	Moderate	-	-	-	-	-	-
2	What was the nature and function of the putative moated site?	High	-	-	Low	Low	Low	Low
3	Within what date range was the moated site in use?	Moderate	-	High	Low	-	-	-
4	What is the relationship of the moated site to the surrounding terrain in both physical and organisational terms?	Moderate	Moderate	-	-	-	Low	-
5	What is the relationship of the moated site with medieval Westcott and other water-filled features in the vicinity?	-	High	-	-	-	-	-
6	What use was this land put to after the abandonment of the moated site?	Moderate	High	-	Moderate	-	-	-
7	What can we learn of the local diet and economy during the medieval and post-medieval periods?	Low	-	-	-	Moderate	-	Moderate
8	What palaeo-environmental conditions prevailed during the Roman, medieval and post-medieval periods in the vicinity of the Site?	Low	-	-	-	High	High	-
9	To augment our knowledge on the types, and distribution of, ceramic fabrics and forms recovered from medieval moated sites	-	-	Moderate	-	-	-	-

Table 15: *Research objectives for analysis and potential of data-sets*

7. UPDATED PROJECT DESIGN

7.1 Introduction

Albion operates a fully integrated, computer-based system for analysing archaeological data. All contextual, artefactual and ecofactual information is entered onto an Access database. Plan and section drawings are digitised. The databases and digital drawings are interfaced via a GIS system (Gsys) allowing all chronological, spatial and material groupings (and any combination thereof) to be viewed and manipulated. In addition, all the site photographs are held in a digital format, allowing them to be viewed on screen with database and digital drawings.

The system enables rapid and flexible analysis of the project data-sets. It also facilitates the output of a series of text reports, supported by plan and other graphic forms. These will form the basis for the final publication report.

7.2 Publication

A report will be submitted to the Buckinghamshire County Archaeological Service that is suitable for inclusion in an approved archaeological journal (likely to be *Records of Buckinghamshire*). The suggested format is set out below (Table 16) with indicative publication page and figure counts.

	Summary	No. pages	No. figs
1.	**Introduction**		
	• Site location and conditions	¼	1
	• Archaeological background	1	1
	• The archaeological investigations	¼	
	• Structure and terminology in this article	¼	
2.	**Results of the investigations**		
	• Roman	1	1
	• Medieval (inc. documentary evidence)	3½	3
	• Post-medieval (inc. documentary evidence)	1	1
	• Modern (concentrating on the White Swan PH)	1	2
3.	**The artefactual assemblage**	3	
4.	**The ecofacts**		
	• Plant remains	2	
	• Molluscan remains	1	
	• Animal bone	1	
5.	**Discussion**	3	
6.	**Conclusions**	1	
	Acknowledgements	¼	
	References	1	
	TOTAL	17.5	9

Table 16: *Provisional outline of the publication*

The chronological phased development of the site will provide the basic structure for the site narrative. Within each phase, text will be organised by landscape and group, with artefactual and ecofactual information integrated into the text as appropriate. Evidence from documentary, cartographic and photographic sources will be integrated into this chronological framework.

The assessment suggests that the discussion will concentrate on the evidence for the putative medieval moated site, with the focus on the related research objectives identified in Section 6.2. Remains from the other represented periods will form a smaller part of the discussion. These sections will be derived from data presented in this assessment as new analysis is proposed for material relating to those periods.

The outline (Table 16) of the publication should be considered a guideline and may be altered during the analysis and pre-publication stages if the results warrant it.

7.3 Timetable

Following the acceptance by the client and AO of the assessment and updated project design, Albion would like to proceed rapidly with the analysis and publication of the results. This would ensure project momentum is maintained.

Detailed method statements, with task numbers and resource levels, are provided in Appendix 2. Table 17 sets out the five key stages within the analysis and publication programme. An indication of maximum time required to reach the first three key stages is indicated and these could serve as appropriate monitoring points, if required.

Completion of	Description of tasks	Time
Key stage 1	Analysis	2 months
Key stage 2	Report writing for data-sets and illustration	3 months
Key stage 3	Completion of 1st draft followed by circulation to client, AO and referees	4 months
Key stage 4	Completion of final draft and submission to an approved archaeological journal	1 month
Key stage 5	Publication and archiving	*

***Table 17:** Provisional timetable to complete the project*

*Publication, and therefore deposition of the archive with Buckinghamshire County Museum, will be dependent on the length of time taken for the refereeing of the article.

7.4 Archiving

On publication of the final report the archive of materials (subject to the landowner's permission) and accompanying records will be deposited with Buckinghamshire County Museum, Accession Number 2006/179.

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Taylor, J., 2006, 'Rural settlement, landscape and society' in Cooper

APPENDIX 1: ECOFACT SAMPLE TABLES

Assessment Phase	Assessment Landscape	Assessment Group	Sample Number	Feature	Feature Type	Context Number	Bulk Volume (l)	Flot Volume (ml)	Flot Mesh Size (mm)	Residue Mesh Size (mm)	FLOT COMMENTS
3	301	301.01	15	2011	Ditch	2014	10.00	1.00	0.25	1.00	virtually nothing
			16	2038	Ditch	2041	10.00	10.00	0.25	1.00	mainly roots/rootlets and molluscs
5	501	501.01	11	1144	Ditch	1145	10.00	2.00	0.25	1.00	roots/rootlets;virtually nothing
	502	502.01	17	2049	Pit lower fill	2050	10.00	3.00	0.25	1.00	mainly roots/rootlets
6	601	601.01	4	1195	Possible moat	1193	10.00	14.00	0.25	1.00	wet/hedgerow assem;>molluscs
			9	1292	Possible moat	1295	10.00	3.00	0.25	1.00	100s duckweed seeds;roots,molluscs
			10	1292	Possible moat	1294	10.00	9.00	0.25	1.00	mod sized assem;>wet plants;>Lem;>sm wood frags
		601.04	7	1248	Ditch	1249	10.00	2.00	0.25	1.00	mainly roots/rootlets
			8	1250	Ditch	1251	10.00	5.00	0.25	1.00	main charred grain -Tri(ae) 50-100+ (poorly pres)
		601.05	13	1065	Layer	1065	10.00	10.00	0.25	1.00	mainly roots/rootlets
		601.06	1	1150	Ditch	1151	10.00	5.00	0.25	1.00	mainly roots and v frag charcoal;occ grain (poor preservation)
	602	602.01	12	1272	Side ditch to possible moat	1274	10.00	2.00	0.25	1.00	v little
7	701	701.01	5	1201	Pond fill	1202	10.00	5.00	0.25	1.00	>roots/rootlets;10-20 grains/fragments
9	902	902.08	14	1342	Cesspit	1344	10.00	50.00	0.50	1.00	>seeds(diverse spp);>wood (twigs etc)

Table 18: *Ecofact Sample Processing Results by Phase*

Phase	Assessment Landscape	Assessment Group	Context		Sample	Constituent	Abundance	Diversity	Comments
3	301	301.01	2014	flot	15	Molluscs	1	Low	terr or fw
				flot		Waterlogged roots	1	Low	
			2041	flot	16	Charred seeds	1	Low	gram (small)
				flot		Charred wood	3	Low	flecks,small fragments
				flot		Molluscs	3	Low	fw or terr
				flot		Waterlogged roots	3	Low	
5	501	501.01	1145	flot	11	Charred seeds	1	Low	
				flot		Charred wood	1	Low	Flecks
				flot		Molluscs	1	Low	terr or fw
				flot		Waterlogged roots	3	Low	
				flot		Waterlogged seeds	2	Low	lem (c 10)
	502	502.01	2050	flot	17	Charred wood	2	Low	flecks,v small fragments
				flot		Molluscs	1	Low	terr or fw
				flot		Waterlogged roots	3	Low	
				flot		Waterlogged seeds	1	Low	car
6	601	601.01	1193	flot	4	Charred wood	2	Low	flecks,small fragments
				flot		Molluscs	3	Low	terr or fw
				flot		waterlogged roots	3	Low	
				flot		waterlogged seeds	3	Med	rub++,sam,hyoni++,conma,ransc++,ranba++,urtdi,lem
				flot		waterlogged wood	2	Low	small fragments
			1295	flot	9	Charred grain	1	Low	Hor/Tri fragments
				flot		Charred wood	2	Low	flecks,small fragments
				flot		Molluscs	2	Low	terr or fw
				flot		Waterlogged roots	3	Low	
				flot		Waterlogged seeds	3	Low	Lem+++,Atr,Sam
			1294	flot	10	Charred grain	1	Low	Triae,indet
				flot		Charred wood	3	Low	flecks,small fragments
				flot		Molluscs	2	Low	terr or fw
				flot		Waterlogged seeds	3	Med	lem+++,ransc++,ranba++,jun,urtdi,carcir,sam,rub
		601.04	1249	flot	7	Charred grain	1	Low	Hor/Tri(1)
				flot		Charred wood	1	Low	v small fragments
				flot		Inv. ephippia	1	Low	
				flot		Molluscs	1	Low	terr or fw
				flot		Waterlogged roots	3	Low	

Phase	Assessment Landscape	Assessment Group	Context		Sample	Constituent	Abundance	Diversity	Comments
				flot		Waterlogged seeds	2	Low	sam,urtdi,lem
			1251	flot	8	Charred grain	3	Low	Triae,Tri,?Tridisp,Hor,fragments
				flot		Charred seeds	2	Med	cf Vicfa,L/V/P,Bro,Gram,Poly,Antco
				flot		Charred wood	2	Low	small frags (poss 1-2 id'ble frags)
				flot		Molluscs	2	Low	terr or fw
				flot		Waterlogged roots	2	Low	
				flot		Waterlogged seeds	3	Med	che,urtdi,labi,lem,car
				flot		Waterlogged wood	2	Low	
		601.05	1065	flot	13	Charred grain	1	Low	Tri(ae)
				flot		Charred wood	3	Low	flecks,small fragments
				flot		Waterlogged roots	3	Low	
				flot		Waterlogged seeds	2	Low	aetcy,atr,sam,labi,lem
		601.06	1151	flot	1	Charred grain	1	Low	Triae, indet, frags
				flot		Charred seeds	1	Low	agrgi
				flot		Charred wood	3	Low	flecks,small fragments
				flot		Molluscs	1	Low	fw or terr
				flot		Waterlogged roots	3	Low	
				flot		Waterlogged seeds	1	Low	atr
	602	602.01	1274	flot	12	Charred grain	1	Low	Tri(1)
				flot		Charred wood	1	Low	Flecks
				flot		Waterlogged roots	3	Low	
				flot		Waterlogged seeds	2	Low	lem++,euphe,cheglru
7	701	701.01	1202	flot	5	Charred grain	2	Low	Triae,Tri,?Hor,fragments
				flot		Charred wood	2	Low	small fragments
				flot		Molluscs	3	Low	terr or fw
				flot		Waterlogged roots	3	Low	
				flot		Waterlogged seeds	2	Low	cheglru,ran,urtdi
9	902	902.08	1344	flot	14	Inv. insects	1	Low	
				flot		Molluscs	1	Low	
				flot		Waterlogged misc.	1	Low	bud fragments
				flot		Waterlogged seeds	3	High	ransc,car,leo,rum,urtdi,c/c,rub,corsq,sam,ran,steme,polav,falco,pot
				flot		Waterlogged wood	3	Low	small frags,twigs etc

Table 19: *Biological remains by Phase (from ecofact samples)*

APPENDIX 2: METHOD STATEMENTS FOR ANALYSIS, PUBLICATION AND ARCHIVING (BY EACH DATA-SET)

8.1 Analysis of Contextual Data

8.1.1 Liaison meetings

On-going discussion will take place between the principal members of the project team throughout the analysis and publication stages. These will involve discussion over the nature of the work required, commissioning of the work and addressing any queries that arise during the course of the project.

8.1.2 Analysis of documentary, cartographic and photographic sources

The Buckinghamshire Sites and Monuments Record and Centre for Buckinghamshire Studies will be visited to provide background information on archaeological sites in the vicinity. Roman and medieval sites will be focused on, with particular reference to other known or potential medieval moated sites in the vicinity. All relevant maps, photographs and other documents will be examined.

8.1.3 Computerisation

The quantity of the data-sets means that they would benefit from computerisation. Albion operates a fully integrated computer-based system of structural analysis using databases (through Access) and a mini GIS (Gsys) for interrogation. Basic contextual information has been entered into a database table and has been successfully utilised within this report.

The digitised all features drawing produced for the assessment will require checking and correcting to ensure it is linked correctly with the contextual database. Once this is complete, the drawings are fully interrogatable and manipulable by any database table.

Once this is achieved, it will be possible to rapidly interrogate data-sets within the Gsys programme. For example, it would be possible to plot the distribution of specific find types, or all features which are considered to be contemporary etc. This type of interrogation will greatly enhance the analysis of data and is, therefore, likely to assist in the interpretation of the archaeological remains. It also enables basic publication figures to be produced rapidly.

Any relevant historical maps or data from earlier archaeological excavations will be geo-referenced and digitised to permit examination with the all features drawing.

8.1.4 Sub-group and group analysis

All contexts will be processed to sub-group level. Much use will be made of contextual information specifically descriptive (held in the context database) and section drawings.

Each context will be analysed using the above information and assigned to a single sub-group, consisting of one or more (usually several) contexts that are closely related both stratigraphically and interpretatively. For example, comparable cuts within a single ditch length will be assigned to the same sub-group. Primary, secondary and tertiary deposits of ditches will also be kept separate at sub-group level.

The method of sub-group definition will rapidly identify those sub-groups, which have limited or no further analytical value (e.g. features/deposits of geological origin). These sub-groups will not be subject to any further analysis.

The sub-group allocation for each context will be entered into the contextual database table. A sub-group text will then be written directly into the sub-group database table so that it can be easily accessed. It will contain a factual, descriptive section as well as an interpretative section, setting out the rationale behind the definition of the sub-group. This text will be

checked for content, accuracy and spelling/grammar. It is not envisaged that sub-group plans will be routinely produced, but this information will be available via the relational database tables.

Sub-groups worthy of further analysis will be assigned to a single group representing a higher level of interpretation. It is likely that most groups will comprise multiple sub-groups. The assessment of the features/deposits identified at the White Swan, Westcott suggests that the sub-groups could be assigned to the following group types:

- Roman ditches
- Medieval moat
- Medieval ditches
- Medieval pond
- Medieval pits
- Medieval layers
- Medieval post-holes
- Late medieval/early post-medieval hollow
- Late medieval/early post-medieval ditch
- Late medieval/early post-medieval structural feature
- Post-medieval pits
- Post-medieval layers
- Modern bedding trenches
- Modern ditches
- Old "White Swan" public house
- New "White Swan" public house
- Other modern buildings
- Features related to modern buildings
- Cess pits
- Modern layers
- Modern post-holes

Secondary or tertiary fills of features may be assigned to separate groups where appropriate, to reflect the likelihood that they may be considerably later in date than the construction/primary deposits and need therefore to be analysed separately. However, to ensure that their spatial location is not lost, they will be issued a group number comprising a decimal point of the "containing" group for example G7.2 is the secondary fill of ditch G7 etc.

The group allocation for each sub-group will be entered into the sub-group database table. A group text will then be written directly into the group database table so that it can be easily accessed. It will contain a descriptive section as well as an interpretative section. This text will be checked for content, accuracy and spelling/grammar. It will form the basis for any detail required in the descriptive section of the publication text. A plan will be produced for each group with the location of all relevant sub-groups marked.

8.1.5 Landscape and phase analysis

Each group will be assigned to another, higher level of interpretation known as a landscape unit. The assessment of the White Swan, Westcott data suggests that the groups could be assigned to the following landscape unit types:

- Roman features
- Medieval ditches and remnant bank that appear to pre-date the moat
- Medieval pit that appears to pre-date the moat
- Moat and associated ditches, pond and layer
- Ditches added to widen the moat
- Other medieval pits and ditches
- Later medieval layers
- Late medieval/early post-medieval hollow

- Late medieval/early post-medieval ditch
- Late medieval/early post-medieval structural feature
- Post-medieval pit and possibly associated up-cast layer
- Other post-medieval pits
- Post-medieval agricultural soil
- Modern garden features
- The old "White Swan" and associated features
- Row of modern postholes
- The new "White Swan" and associated features
- Modern features to the rear of and not associated with the new "White Swan"

Any Groups representing secondary or tertiary deposits may be considerably later in date than construction/primary groups and to distinguish these at landscape level they will be assigned to a separate landscape number. However, to ensure that their spatial location, for example within a specific enclosed settlement is not lost they will be issued a landscape number comprising a decimal point of the "containing" landscape, for example L4.2 is a secondary filling landscape of enclosure L4.

The landscape allocation for each group will be entered into the group database table. A landscape text will then be written directly into the landscape database table so that it can be easily accessed. It will contain a descriptive section as well as an interpretative section. This text will be checked for content, accuracy and spelling/grammar. It will form the basis for the site narrative section of the publication text. A plan will be produced for each landscape with the location of all relevant groups marked.

Each landscape will be assigned the final level of interpretation known as a phase. The assessment suggests the phases could be as follows:

- Phase 1: Roman
- Phase 2: Earliest phase of medieval activity
- Phase 3: Later phase of medieval activity
- Phase 4: Late medieval/early post-medieval
- Phase 5: Post-medieval
- Phase 6: Modern (contemporary with old "White Swan")
- Phase 7: Modern (contemporary with new "White Swan")

The phase allocation for each landscape will be entered into the landscape database table. A phase text will be written directly into the phasing database table so that it can be easily accessed. It will contain a descriptive section as well as an interpretative section. This text will be checked for content, accuracy and spelling/grammar. It will form the basis for the site narrative section of the publication text. A plan will be produced for each phase with the location of all relevant landscapes marked.

The completion of the *Landscape and Phase Analysis* represents a key stage in the analytical programme and is the precursor to the production of publication text and illustrations.

♦KEY STAGE 1

8.1.6 Final phasing/publication liaison

Once the provisional final phasing is determined this will be examined in light of artefactual material. When the final phasing has been checked the various specialists will be informed. Each will receive detailed phasing information and will include the phasing hierarchy, format of their publication text along with other information that they may require.

8.1.7 Site narrative text

The site narrative will form the basis of the descriptive section of the publication text. It will be organised by phase, landscape and, where appropriate, group.

8.1.8 Structural illustration

The digitised plan and section data will be interrogated via the relational database tables to produce mock-up publication illustrations. Plans will be produced to show all features in each phase with Landscape and Groups identifiable.

♦KEY STAGE 2

Structural Analysis		
Task	**Staff**	**Days**
Liaison meetings	PO PM Illust	2 2 2
Analysis of documentary etc. sources	PO	2
Computerisation	PO	2
Sub-group and group analysis	PO	8
Landscape and phase analysis	PO	6
Assistance with analysis	PM	4
♦ KEY STAGE 1		
Phasing/Publication liaison	PO/PM	6
Site narrative	PO	10
Assistance with site narrative	PM	5
Structural illustration	Illust	5
Assistance with illustration	PO	2
♦ KEY STAGE 2		

Table 20: *Summary of structural analysis tasks*

8.2 Analysis of Pottery

8.2.1 Liaison Meetings

Ongoing discussion will take place between the principal members of the project team throughout the analysis and publication stages. These will involve discussion over the nature of the work required, commissioning of the work and addressing any queries that come up during the course of the project.

8.2.2 Quantification and recording of pottery

Pottery will be laid out in context order and will be quantified by minimum vessel and sherd count, and weight. Pottery fabrics have been identified according to the Bedfordshire Ceramic Types Series, and where possible these will be correlated with the Buckinghamshire Roman and post-Roman type series (Marney 1989 and Mynard 1992 respectively). All attributes such as decoration, evidence of function (sooting, wear marks etc.), and manufacturing techniques (firing characteristics etc.), will be recorded. All quantified data will be entered onto the relevant table within the site database.

8.2.3 Production of technical text for pottery

Detailed description of the pottery recovered, including fabric and form definitions. Selection of pottery vessels for publication standard illustration will be made at this juncture. The criteria for the selection of illustrated pottery vessels will be as follows:
- all fabrics and forms previously unknown in the county and therefore unpublished
- better examples of those types already published
- vessels from specific features or groups of features
- vessels associated with specific structures

- vessels of intrinsic interest

♦KEY STAGE 1

8.2.4 Phasing/publication Liaison

See structural analysis section.

8.2.5 Pottery publication text

A specialist text summarising the pottery assemblage within appropriate chronological periods by fabric type, forms, decoration and attribute. The text will refer to comparative assemblages (published or unpublished). In addition and where appropriate the pottery assemblage from elements of the structural hierarchy i.e. landscapes and groups will be discussed.

8.2.6 Illustration

Illustration of the material selected for inclusion in the technical text will be carried out by the Illustrator, in consultation with the artefact analyst.

♦KEY STAGE 2

Pottery Analysis		
Task	**Staff**	**Days**
Liaison meetings	FO	0.5
Quantification and recording (Pottery)	FO	2
Pottery technical text (type series)	FO	1
♦ KEY STAGE 1		
Phasing/publication Liaison	FO/PO	0.5
Pottery publication text	FO	4
Illustration	Illust	1
♦ KEY STAGE 2		

Table 21: *Summary of pottery analysis tasks*

8.3 Analysis of Ceramic Building Material

8.3.1 Quantification and recording

Ceramic building material (CBM) will be laid out in context order, and will be quantified by fragment count and weight. Any complete or measurable dimensions of CBM fragments will be noted. All quantified data will be entered onto the relevant table within the site database.

8.3.2 Production of technical text

A detailed description will be produced of the CBM recovered, including fabric and form definitions. Selection of CBM fragments for publication-standard illustration will be made at this juncture.

♦KEY STAGE 1

8.3.3 Phasing/publication Liaison

See structural analysis section.

8.3.4 Publication text

A specialist text will be produced, summarising the CBM assemblage by type/forms.

♦KEY STAGE 2

Task	Staff	Days
Liaison meetings	FO	0.5
CBM quantification and recording	FO	1
CBM technical report	FO	0.5
◆ KEY STAGE 1		
CBM Phasing/publication Liaison	FO/PO	0.5
CBM publication text	FO	1
◆ KEY STAGE 2		

Table 22: *Summary of CBM analysis tasks*

8.4 Analysis of other artefacts

8.4.1 X-radiography

Includes packaging of artefacts and transportation costs to lab, actual x-radiography costs and conservator's initial report, liaison with conservator, and updating of the site database following return of the objects from the lab.

8.4.2 Other artefacts identification

Each object will be assigned a narrow term, and where applicable, a date range. This information will be established by an examination of each object, noting:
- form
- method of manufacture
- material and source
- presence of diagnostic features
- condition
- selected parallels from comparable sites
- comparison with ceramic data from the site

8.4.3 Other artefacts technical catalogue

A selection of registered artefacts will be made for inclusion in the publication catalogue and a draft catalogue prepared. Selection of artefacts for publication-standard illustration will be made at this juncture.

♦KEY STAGE 1

8.4.4 Final phasing/publication liaison

See structural analysis section.

8.4.5 Other artefacts overview text

Following phasing confirmation, the artefact assemblage will be discussed in relation to both the temporal and spatial framework of the site.

8.4.6 Other artefacts illustration

Illustration of the material selected for inclusion in the technical catalogue will be carried out by the Illustrator in consultation with the artefact analyst.

♦KEY STAGE 2

Other Artefacts Analysis		
Task	**Staff**	**Days**
X-radiography	external	6
Liaison and transport	AM	2
Other artefacts identification	AM	0.5
Other artefacts technical catalogue	AM	1
◆ **KEY STAGE 1**		
Other artefacts phasing/publication liaison	AM/PO	0.5
Other artefacts publication text	AM	1
Illustration	Illust.	1
◆ **KEY STAGE 2**		

Table 23: *Summary of other artefacts analysis*

8.5 Analysis of Plant Remains

8.5.1 Quantification and recording

The unprocessed remaining soil from six of the assessed samples, specially selected for their good waterlogged and charred plant assemblages and relevance to the identified research objectives, will be processed. Detailed analysis of the botanical remains in 10 flots with moderate to rich charred and waterlogged assemblages will be carried out while a record should also be made of the few remains in the other three productive samples. The plant remains will be identified using a binocular microscope, the seed reference collection housed in the Environmental Section, MoLSS and seed reference manuals (Berggren 1981; Beijerinck 1947). The charred plant remains (grain, seeds) will be extracted and quantified in absolute numbers while all the waterlogged plant remains (and charcoal) will be scanned and frequencies of individual species made using the following codes: + = 1-10; ++ = 11-100; +++ = 100+ items. Only unusual and not readily identifiable material will be extracted.

The results will then be entered onto a database and a table prepared of the results. A full report will also be prepared taking into consideration the botanical results from other sites in the region and any other environmental work carried out on the site.

♦KEY STAGE 1

8.5.2 Phasing/publication liaison

See structural analysis section.

8.5.3 Plant remains publication text

The final publication text will detail the analysis of selected samples and incorporate the results of the assessment for unanalysed samples.

♦KEY STAGE 2

Plant Remains Analysis		
Task	**Staff**	**Days**
Liaison and transportation	external/PO	2
Processing of additional selected samples	external	1
Quantification and recording	external	7.5
Plant remains technical report	external	2
◆ **KEY STAGE 1**		

Plant Remains Analysis		
Task	**Staff**	**Days**
Phasing/publication Liaison	external/PO	0.5
Plant remains publication text	external	1
◆ KEY STAGE 2		

Table 24: *Summary of plant remains analysis tasks*

8.6 Analysis of Molluscan Remains

8.6.1 Quantification and recording

The terrestrial and freshwater mollusc shells will be identified and recorded onto an Excel spreadsheet and then interpreted in terms of known habitat requirements for each species. Identification will follow Cameron and Redfern 1976; and Macan 1977. Ecological interpretation will follow Kerney 1999.

♦KEY STAGE 1

8.6.2 Phasing/publication liaison

See structural analysis section.

8.6.3 Molluscan remains publication text

The final publication text will incorporate the results of the analysis.

♦KEY STAGE 2

Molluscan Remains Analysis		
Task	**Staff**	**Days**
Quantification and recording	external	1.5
Molluscan remains technical report	external	1
◆ KEY STAGE 1		
Phasing/publication Liaison	external/PO	0.5
Molluscan remains publication text	external	0.5
◆ KEY STAGE 2		

Table 25: *Summary of molluscan remains analysis tasks*

8.7 Analysis of Animal Bone

8.7.1 Quantification and recording

The material will be recorded, as individual bones, directly onto the MoLAS/MoLSS Oracle 8 animal bone post-assessment database and then analysed as a discrete assemblage with reference to available stratigraphic data.

♦KEY STAGE 1

8.7.2 Phasing/publication liaison

See structural analysis section.

8.7.3 Animal Bone remains publication text

The final publication text will incorporate the results of the analysis.

♦KEY STAGE 2

Animal Bone Analysis		
Task	**Staff**	**Days**
Quantification and recording	external	2
Animal bone technical report	external	1.5
◆ KEY STAGE 1		
Phasing/publication Liaison	external/PO	0.5
Animal bone publication text	external	1
◆ KEY STAGE 2		

Table 26: *Summary of animal bone analysis tasks*

8.8 Overall Publication, Archiving and Project Management

8.8.1 Editing publication text including specialist reports

The entire publication will be read and edited to ensure a consistency in approach.

8.8.2 Production of synthesis

A synthetic text will be produced discussing the key elements of the site, probably within the major chronological periods.

8.8.3 Amendments and queries in consultation with specialists during article preparation

During the production of the synthesis it is likely that a number of questions will arise that the various specialists will need to address.

♦KEY STAGE 3

8.8.4 Albion refereeing process

Albion has a policy of circulating the first draft of articles intended for publication to the client, AO and any other interested parties. This task includes time for any required discussion with the referees.

♦KEY STAGE 4

8.8.5 Submission of article and amendments resulting from editors comments to publication text and figures

Amendments to publication text and figures based on comments received from Albion's refereeing process, following submission of the publication article to the editor of *Records of Buckinghamshire.*

8.8.6 Printing and proof reading

The printing of the article will be arranged by the editor of *Records of Buckinghamshire*, but proof reading will be necessary.

8.8.7 Archiving and accessioning

Upon completion of the report, the written and material archives will be prepared for accessioning to Buckinghamshire County Museum. The cost of transfer includes transport, liaison and storage charges.

8.8.8 Project management

All project tasks have been identified from Albion's generic task list menu. These have been entered onto the Albion's Time Recording System (TRS) so that expenditure and resources can be tracked throughout the life of the project. The management of the project includes monitoring the task budgets, programming tasks, checking timetables and liasing with all members of the project team.

Overall publication, archiving and project management			
Task		**Staff**	**Days**
♦	**KEY STAGE 2**		
	Editing publication text	PM	2
	Production of synthesis	PO/PM	8
	Amendments and queries in consultation with specialists during article preparation	PO/PM	1
♦	**KEY STAGE 3**		
	Albion's refereeing process	PM	1
	Albion's refereeing process	OM	1
♦	**KEY STAGE 4**		
	Submission to *Records of Buckinghamshire*		
	Amendments resulting from editor's comments	PM	2
	Printing	external	
	Proof reading	PM	1
	Archive preparation (Structural)	PO	2
	Archive preparation (Artefacts)	FO	1
	Archive transfer (storage costs)	external	
	Archive transfer	PO	1
	Project management (Overall)	PM	2
	Project management (Albion)	OM	2
♦	**KEY STAGE 5**		

Table 27: *Overall publication, archiving and management tasks*

APPENDIX 3: THE PROJECT TEAM

To ensure a consistency of approach the same specialists will be used who have been involved in the assessment stage of the project.

Task	Org.	Title/Organisation	Name
Overall management	Albion	Operations Manager	Drew Shotliff
Daily management	Albion	Project Manager	Joe Abrams
Structural analysis	Albion	Project Officer	Wesley Keir
Pottery/CBM analysis	Albion	Finds Officer	Jackie Wells
Other artefact analysis	Albion	Artefacts Manager	Holly Duncan
Plant remains	external	MOLAS	John Giorgi
Molluscs	external	MOLAS	Alan Pipe
Animal bone	external	MOLAS	Alan Pipe
Illustration	Albion	Illustrator	Joan Lightning

MOLAS: Museum of London Archaeological Service.

Note. Detailed staff CV's were presented in the Project Design and are therefore not repeated here.

Table 28: *The project team*

APPENDIX 4: SUMMARY OF ALL TASKS

Description	Staff	Days
Liaison meetings	PM PO Illust	2 2 2
Analysis of documentary etc. sources	PO	2
Computerisation	PO	2
Subgroup and group analysis	PO	8
Landscape and phase analysis	PO	6
Assistance with analysis	PM	4
Pottery liaison meetings	FO	0.5
Pottery quantification and recording	FO	2
Pottery technical text	FO	1
CBM liaison meetings	FO	0.5
CBM quantification and recording	FO	1
CBM technical text	FO	0.5
X-radiography	ext	6
Other artefacts liaison and transport	AM	2
Other artefacts identification	AM	0.5
Other artefacts technical catalogue	AM	1
Plant remains liaison and transport	ext/PO	2
Processing of additional selected samples	ext	1
Plant remains quantification and recording	ext	7.5
Plant remains technical report	ext	2
Molluscan quantification and recording	ext	1.5
Molluscan remains technical report	ext	1
Animal bone quantification and recording	ext	2
Animal bone technical report	ext	1.5
Keystage 1: completion of analysis		
Phasing/publication liaison: Structural analysis	PO/PM	6
Phasing/publication liaison: pottery	FO/PO	0.5
Phasing/publication liaison: CBM	FO/PO	0.5
Phasing/publication liaison: other artefacts	AM/PO	0.5
Phasing/publication liaison: plant remains	ext/PO	0.5
Phasing/publication liaison: molluscan remains	ext/PO	0.5
Phasing/publication liaison: animal bone	ext/PO	0.5
Site narrative	PO	10
Assistance with site narrative	PM	5
Pottery publication text	FO	4
CBM publication text	FO	1
Other artefacts publication text	AM	1
Plant remains publication text	ext	1
Molluscan remains publication text	ext	0.5
Animal bone publication text	ext	1
Structural illustration	Illust	5
Assistance with structural illustration	PO	2
Pottery illustration	Illust	1
Other artefacts illustration	Illust	1
Keystage 2: completion of all specialist text		
Editing publication text	PM	2
Production of synthesis	PO/PM	8
Amendments and queries in consultation with specialists during article preparation	PO/PM	1
Keystage 3: completion of 1st Draft		
Albion's refereeing process	PM	1
Albion's refereeing process	OM	1
Keystage 4: Submission to *Records of Buckinghamshire*		

Description	Staff	Days
Amendments resulting from editor's comments to publication text and figures	PM	2
Printing	ext	
Proof reading	PM	1
Archive preparation: structural data	PO	2
Archive preparation: artefacts	FO	1
Archive transfer: storage costs	ext	
Archive transfer	PO	1
Project management: overall	PM	2
Project management: Albion	OM	2
Keystage 5: end of project		

Table 29: *Summary of all tasks*

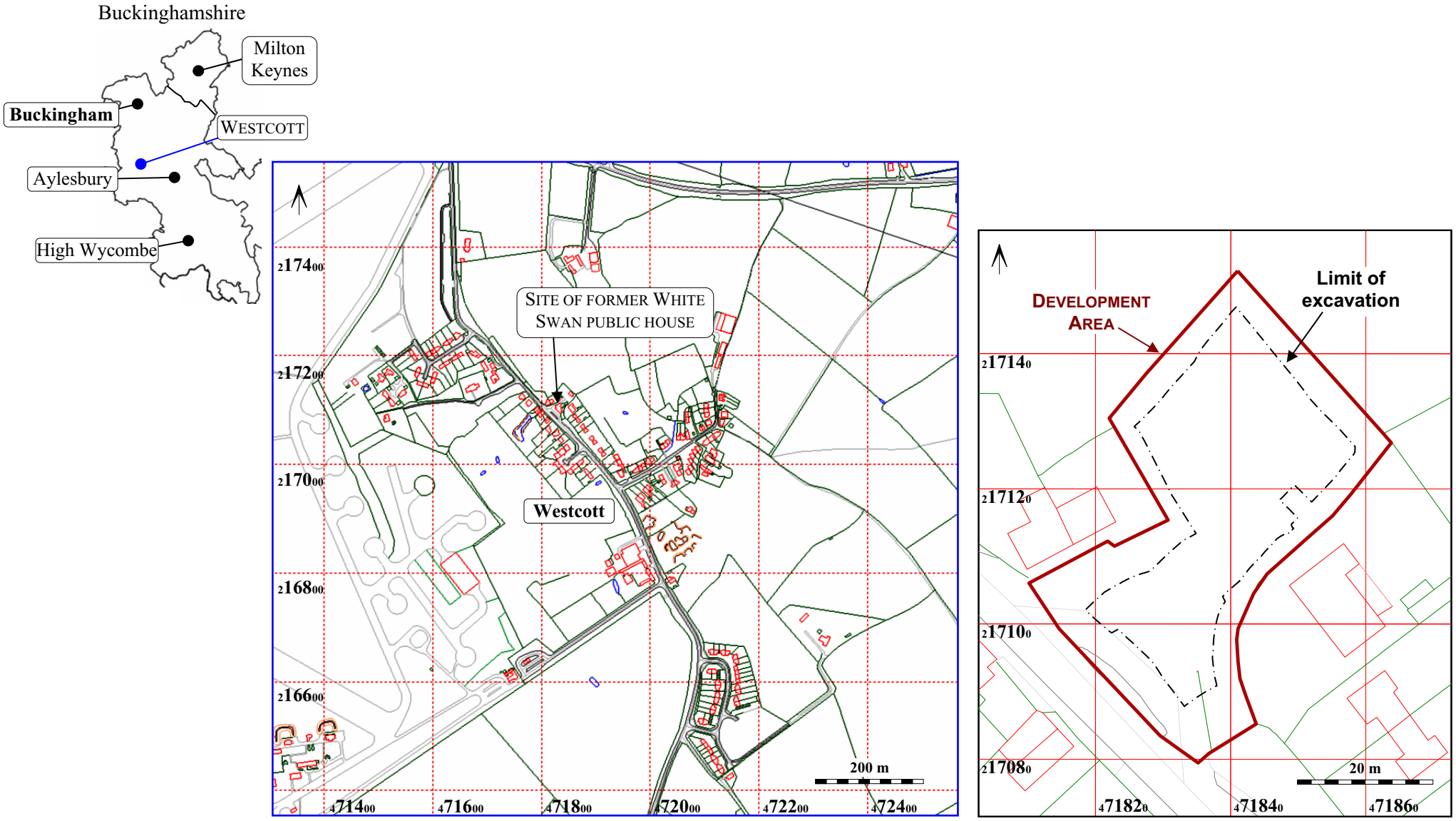

Figure 1: Site location

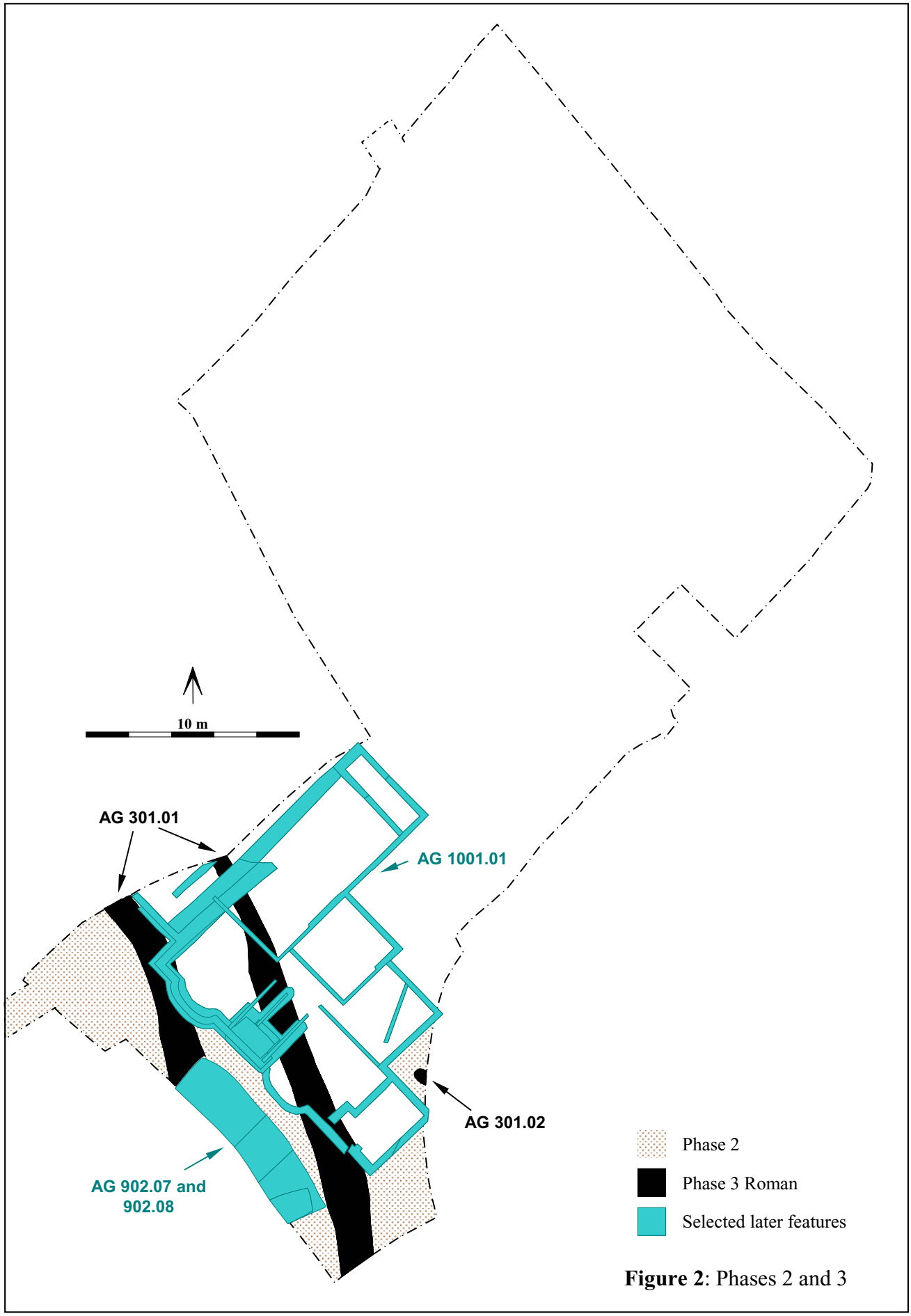

Figure 2: Phases 2 and 3

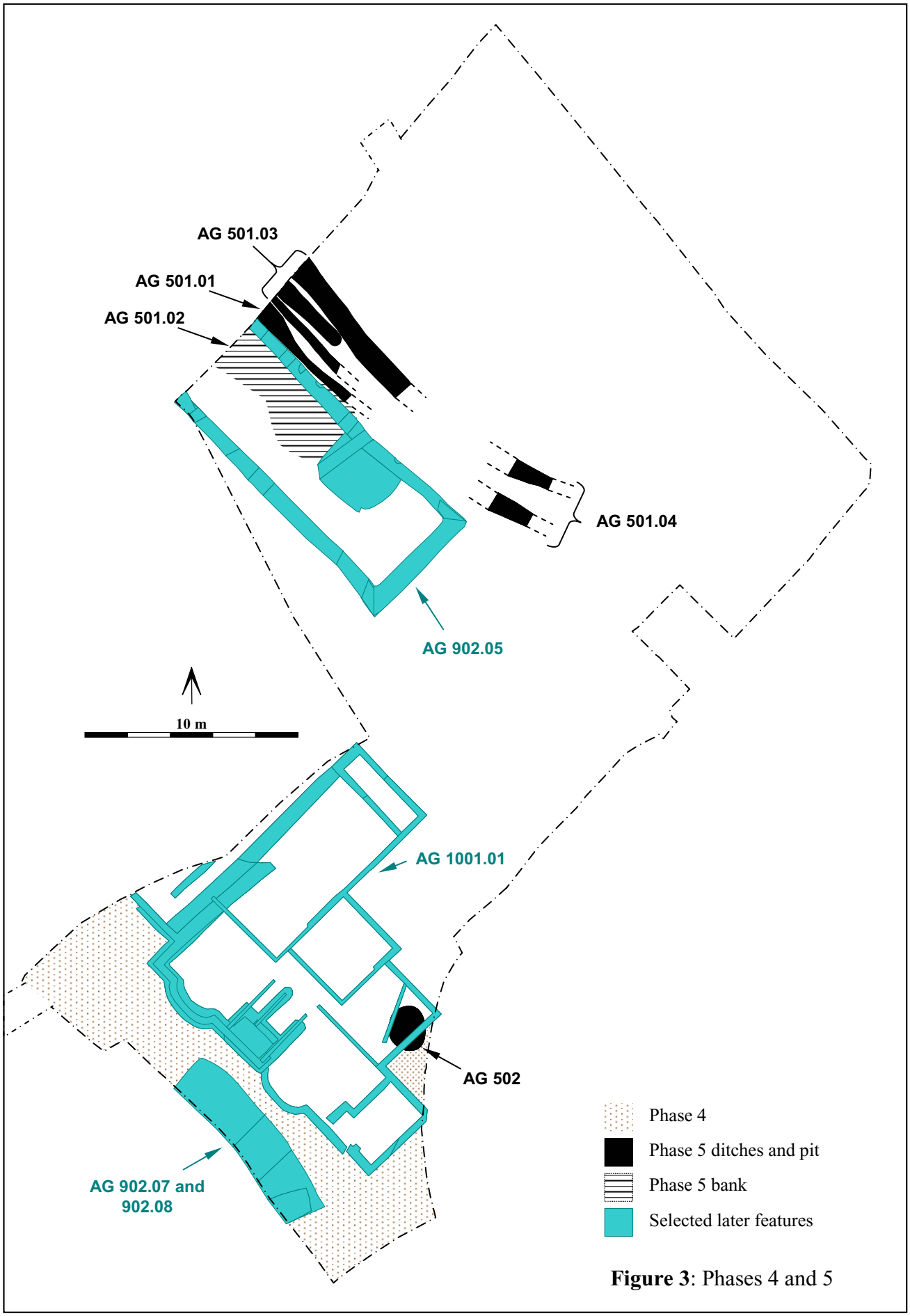

Figure 3: Phases 4 and 5

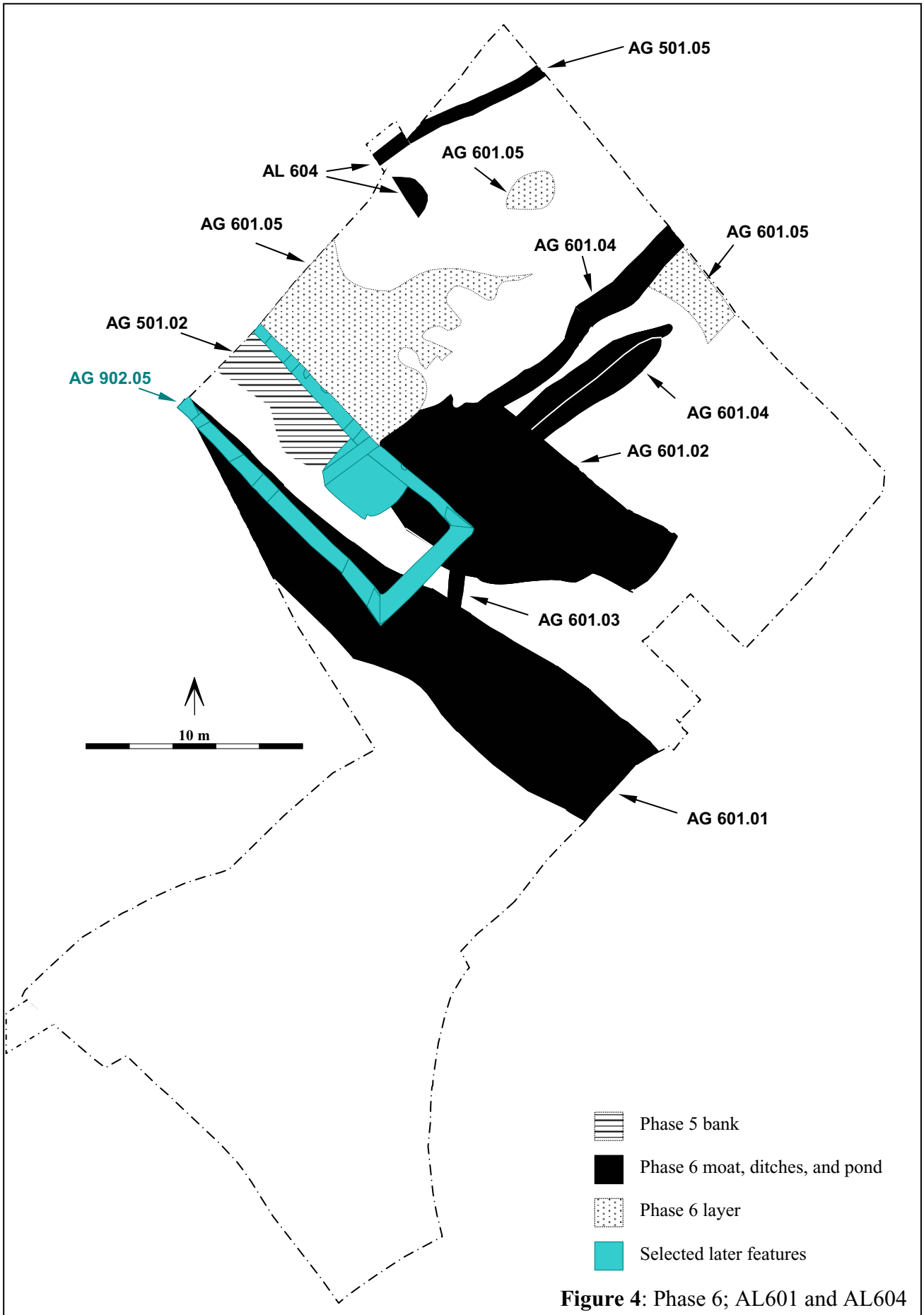

Figure 4: Phase 6; AL601 and AL604

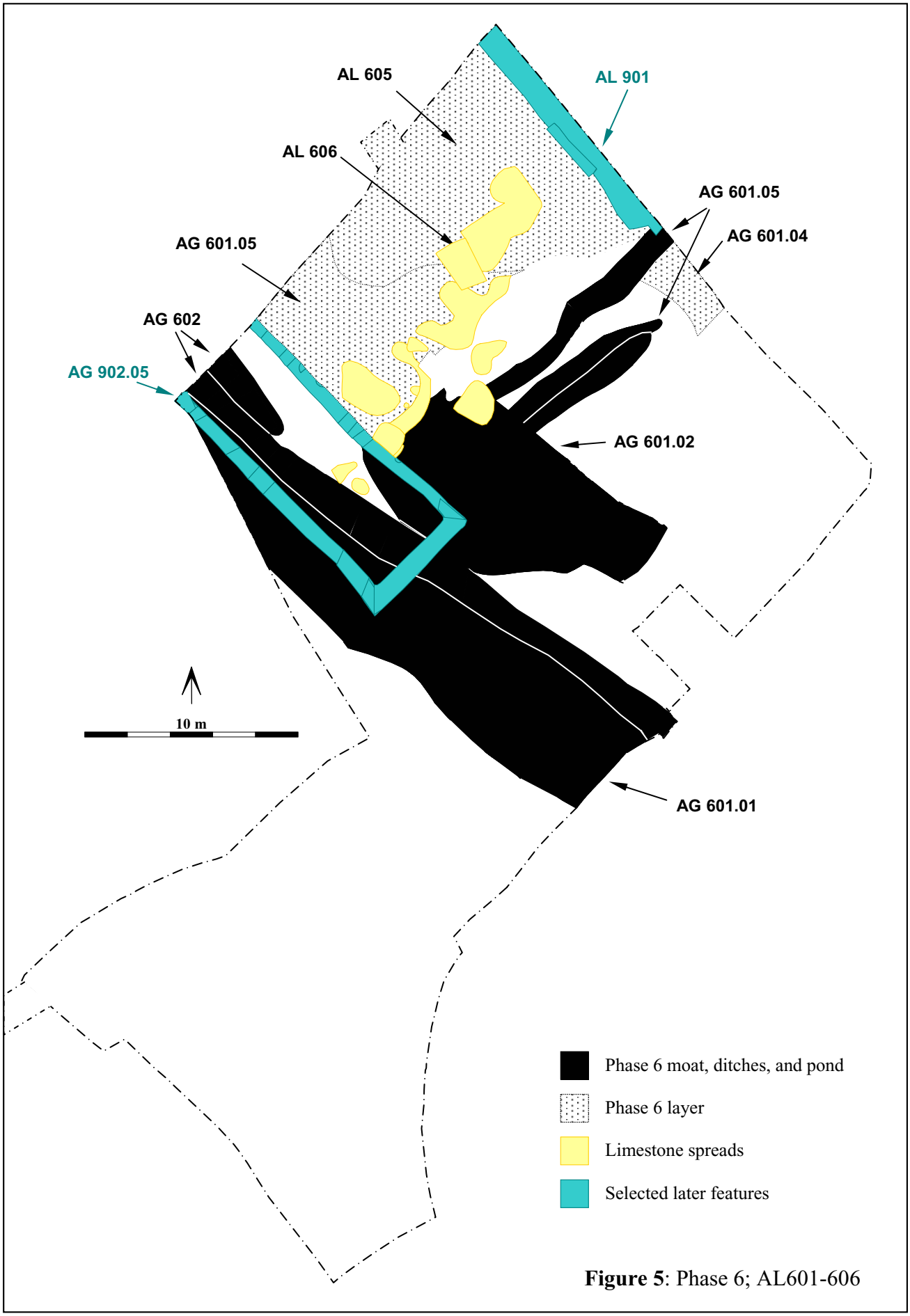

Figure 5: Phase 6; AL601-606

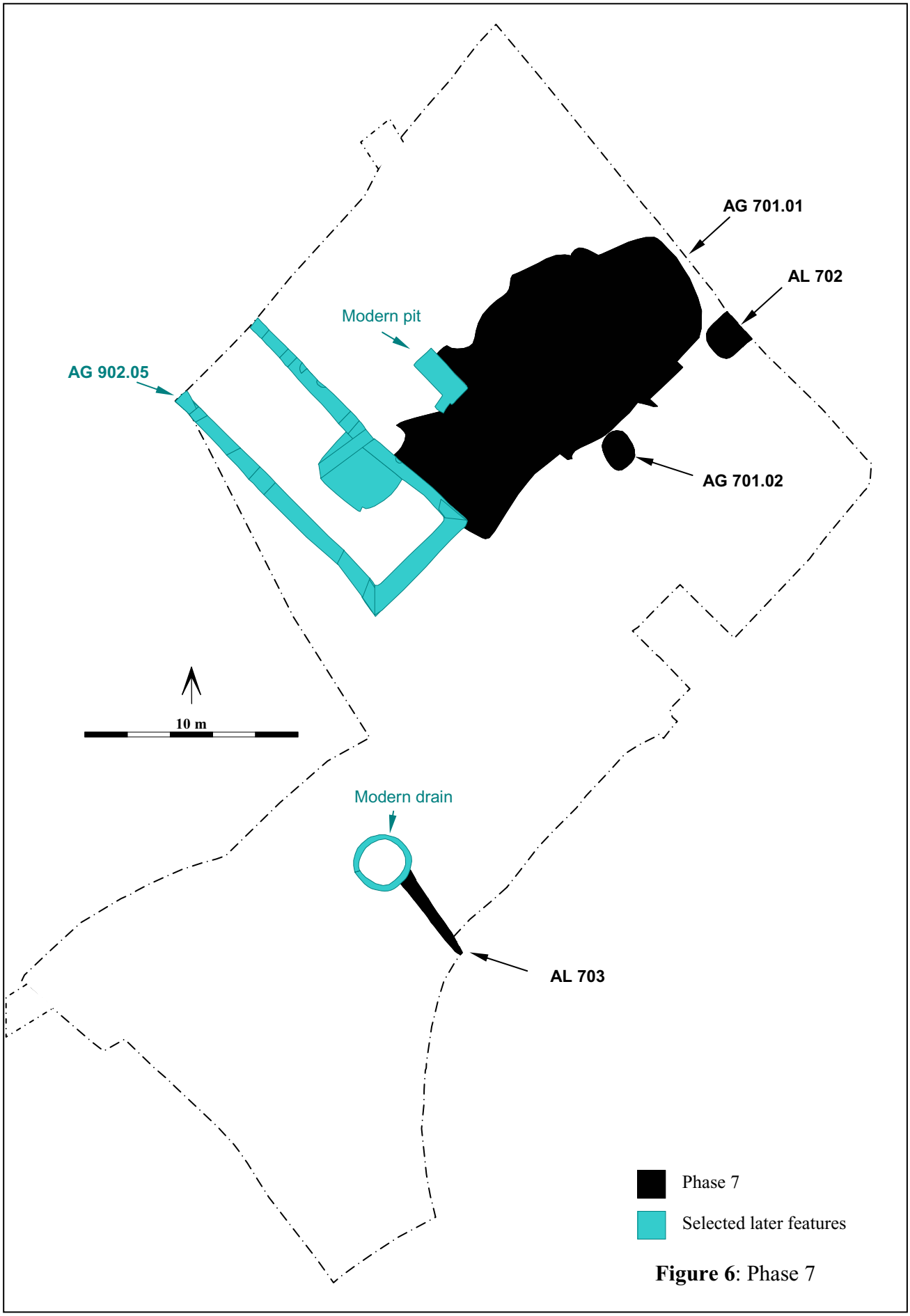

Figure 6: Phase 7

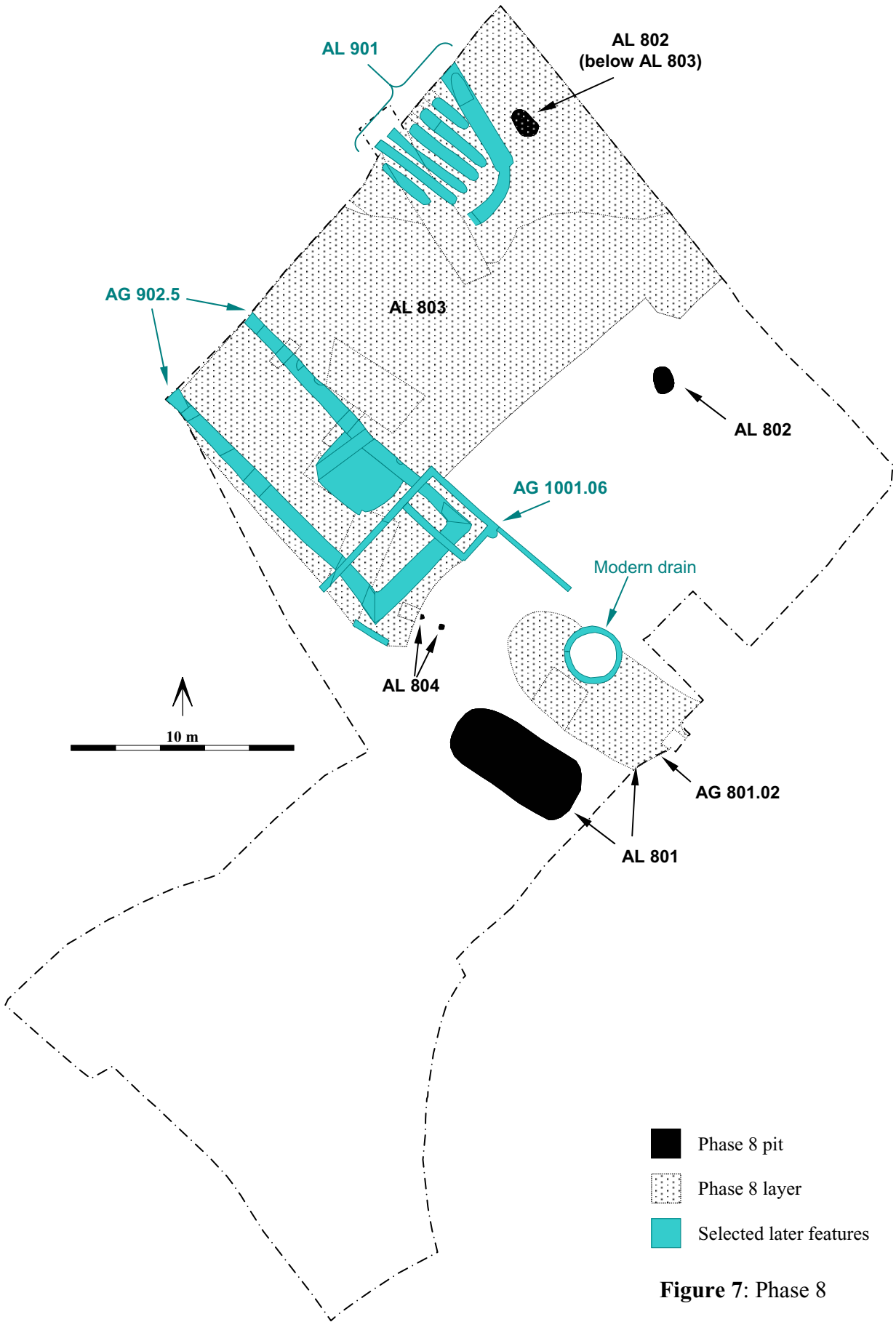

Figure 7: Phase 8

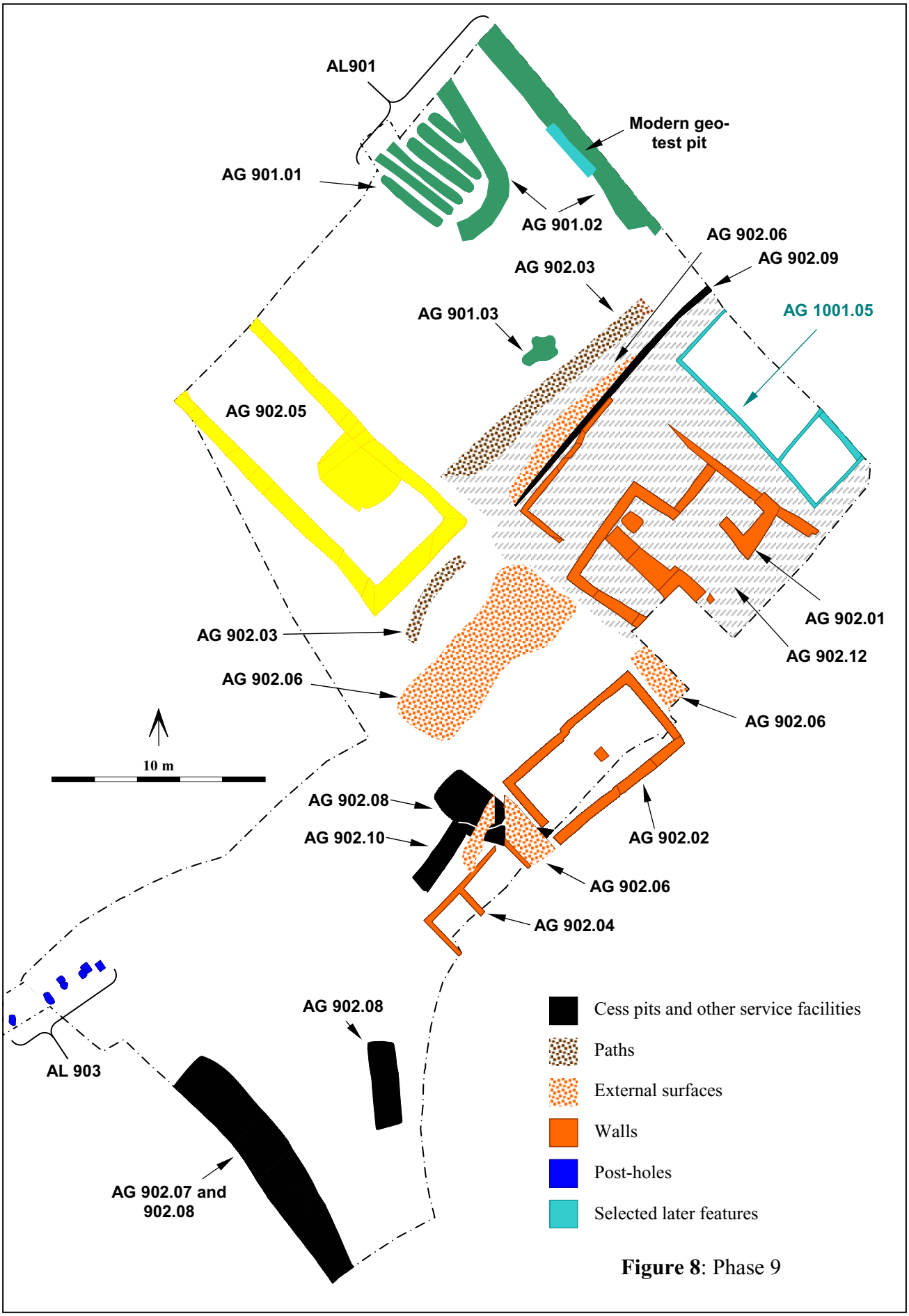

Figure 8: Phase 9

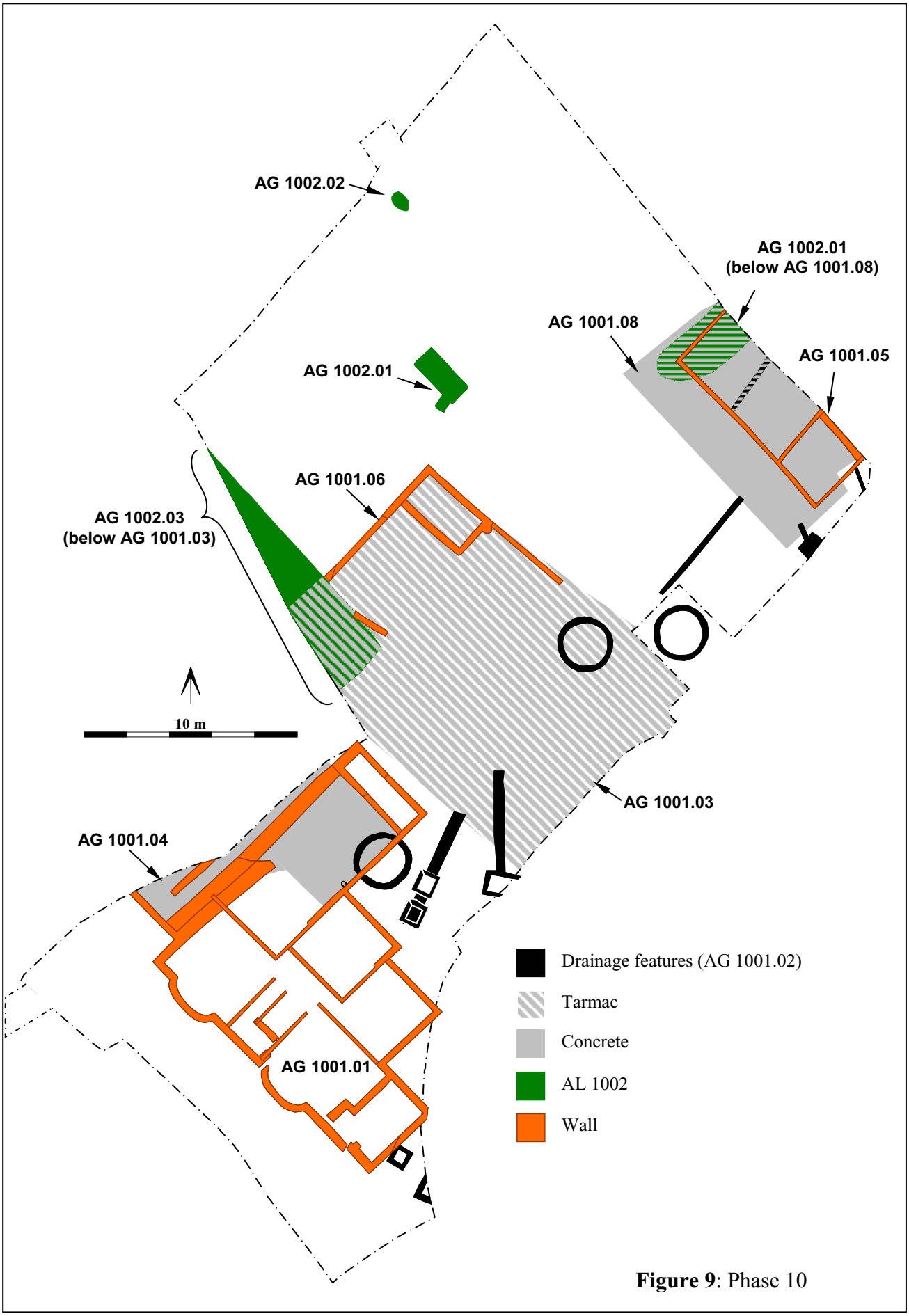

Figure 9: Phase 10