English Heritage

National Importance Programme

Assessing and Mapping Significant Heritage Assets in a Medieval University City Oxford

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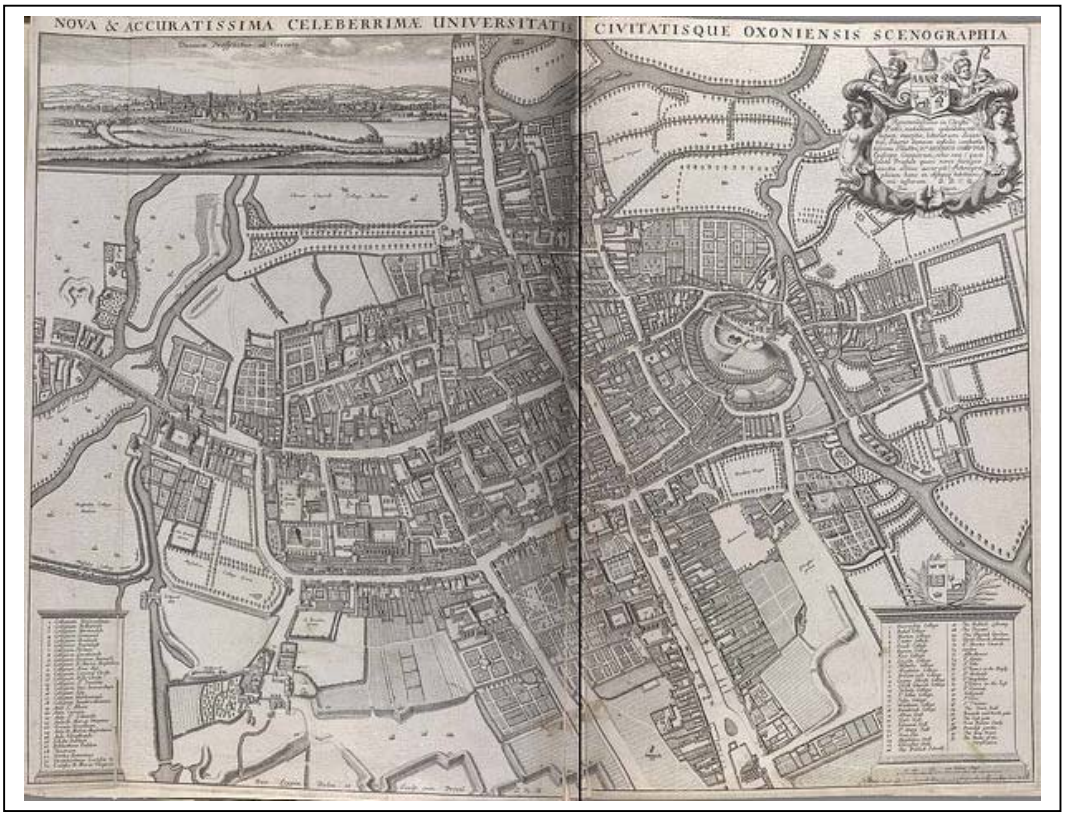

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Assessing and Mapping Significant Heritage Assets in a Medieval University City Oxford

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Assessing and Mapping Significant Heritage Assets in a Medieval University City Oxford

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PART I - INTRODUCTION

1 INTRODUCTION

1.1 Project Summary

1.1.1 This project has been undertaken in response to an original brief set by English Heritage (EH): *National Heritage Protection Plan Call for Proposals*, Project 6982: National Importance Programme Pilot Projects. This brief was issued as part of Measure 5 of the National Heritage Protection Plan (NHPP) which focuses the support and action of English Heritage on protection of significance under a range of themes and places.

1.1.2 The project concerns the assessment of national importance and how to define boundaries in urban contexts, in responding to development pressures in a medieval university city. It focuses on the identification of nationally important, but unscheduled assets that are potentially under threat from the cumulative effects of many and varied developments in Oxford. It also looks at identifying and locating areas of known assets and the means for finding others that are not yet recognised as being of national importance, and the issues that arise from development. It has been chosen in response to the category highlighted in the brief: *What the mechanisms might be for identifying, recording and mapping sites considered to be of national importance.*

1.1.3 The project has been undertaken jointly by OA in partnership with the curatorial staff of Oxford City Council, who are ultimately responsible for managing the response to development. Since by its nature this is a research paper exploring issues it does not necessarily reflect current or proposed city planning policies.

1.2 Background

1.2.1 Oxford is an economically vibrant city that is facing strong development pressure both from suburban infilling/outward expansion and from the requirements of the University and its colleges for updated and improved facilities within the historic core. The City Council is seeking to encourage the provision of affordable accommodation because of strong employment opportunities, the attractiveness of the 'city offer' and the trend of high house prices. It is also seeking to develop growth corridors around the city and attract further knowledge-based industries/employment in a similar fashion to Cambridge. It is therefore scoping further territorial expansion into the green belt (spurred by the impetus of City Deal funding and potentially the 'super city' unitary status in the future). A further development pressure is the mooted Western Conveyance Channel through the Thames floodplain.

1.2.2 To date, this outward development pressure has arguably not had a significant impact on unscheduled sites of national importance but schemes are planned that may impact

on such sites – for example the Old Abingdon Road Norman Causeway, Littlemore Nunnery and development of land around the poorly-defined Lower Palaeolithic Wolvercote Channel. Furthermore, there remains significant potential for as yet undiscovered pottery manufacturing compounds associated with the nationally important Oxford Roman pottery industry to be impacted by outward expansion.

1.2.3 In the period since the advent of PPG16, development within the historic core of Oxford has been strongly influenced by the requirements of centrally located colleges to upgrade and add to on-site facilities, a dynamic currently encouraged by council policy. This dynamic is spurred on by competition between the 38 independent colleges and facilitated by their significant fund-raising capacity. Within the constrained historic college precincts the pressure to upgrade and expand ageing college facilities is compounded by the large number of Grade I Listed Buildings, which puts pressure on architects to design below-ground capacity. Furthermore, the University as a whole is conscious of its global position and faces competition from other elite universities in terms of service provision. Further pressure is placed on the historic core by the usual drives to improve the retail offer and in Oxford's case to develop its historically under-developed west end.

1.2.4 The positive aspects of growth and change are recognised by the City Council in its strategic planning documents. The dynamism outlined above clearly contributes to the economic health of the city and has led to substantial advances in archaeological knowledge and public understanding and appreciation of the city's below-ground heritage assets. A key challenge for the future archaeological heritage management in Oxford will be to continue to develop a robust evidence base for below-ground asset management and facilitate the continuing evolution of the historic core whilst protecting the core asset base over the long term. This will enable important institutions such as the historic colleges and University to meet their strategic needs within a framework of sustainable growth.

1.2.5 The impact of these factors can be seen in the outcomes of PPG16/PPS5/NPPF-related fieldwork and arguably presents an identifiable threat to the long-term sustainability of important archaeological assets within the historic core. Archaeological investigations over the last few decades have demonstrated the presence of surprisingly well-preserved urban deposits in Oxford (and also surprisingly good survival of the Neolithic-Early Bronze Age monumental landscape below the city and northern suburb). This trend was identified in the recent *Oxford Archaeological Action Plan 2013-18*, which was produced as a result of the English Heritage funded Oxford Archaeological Plan (OAP) project.[1] This involved the completion of the Urban Archaeological Strategy Programme for Oxford, comprising the creation of an *Urban Archaeological Database* (UAD, 2002), production of period-based archaeological assessments and research agendas for the city (2012) and the completion of Historic Characterisation mapping (2012). The OAP also involved the production of a series of Statements of Archaeological Interest (SAI) for 40 assets that had not been reviewed by the MPP programme (mostly colleges and friaries).

1.1.1 Oxford currently has 12 Scheduled Ancient Monuments:

- Monument 26 City Wall – 7 sections
- Monument 79 Osney Abbey (single building)
- Monument 80 Rewley Abbey
- Monument 35542 Godstow Abbey
- Monument 143 Ring Ditches and Enclosures at Port Meadow
- Monument 173 Bridge West of Godstow Abbey

[1] See project website: http://www.oxford.gov.uk/oap

- Monument 175 Swing Bridge
- Monument 236 Seacourt Deserted Village
- Monument 12003 Extended Scheduling of Port Meadow
- Monument 21701 Oxford Castle and Earlier Settlement Remains
- Monument 21757 Section of the Grandpont Causeway
- Monument 1408790 Old Abingdon Road Culverts.

1.2.6 Beyond these assets there is a significant number of non-designated archaeological assets that may be assessed as nationally significant, while themes and topics suggested by excavated discoveries may also achieve significance. For example, the recognition that the Late Saxon and medieval town itself represents a nationally important resource, poses a challenge for the on-going management of incremental and piecemeal development.

2 AIMS AND OBJECTIVES

2.1 Aims

2.1.1 The aim of the project is to investigate the assessment of national importance of archaeological sites and deposits and how to define boundaries in an urban context of a medieval university city.

2.2 Objectives

2.2.1 This project has reviewed heritage assets in Oxford city, both within and beyond the area covered by the original UAD study, with regard to the following issues:

The significance of sites impacted by recent development

The significance and extent of known sites of importance

Consideration of the issues for development of problematic and ill-defined sites and areas and consider the wider application of such modelling and assessment.

3 METHOD STATEMENT

3.1 Review the significance of sites impacted by recent development

3.1.1 *Task 1: Review of the development impact on the archaeological resource in Oxford since the advent of PPG16.*

3.1.2 An assessment of the impact of recent development was undertaken, drawn from the UAD and site reports. Specific issues looked at were:

Square metres of excavation within the different areas of the city over time

Numbers of museum storage boxes produced.

3.1.3 This allowed an understanding and general overview of the pace and scale of excavation.

3.1.4 *Task 2: Retrospective review of importance.*

3.1.5 Looking back on the recording events examined in Task 1 consideration has been given to what was excavated, and how and why the sites can be said to be of national importance/ interest. The study has examined how this interest can best be understood – is it thematic (burial grounds, brewing, college diet), artefactual (e.g. building up a national corpus of data) or perhaps uniqueness (e.g. alchemy set from Christ Church)?

It also looks at whether the interest relates to the development of a cumulative understanding from individually unimpressive remains (e.g. individual pits and ditches filled with pottery and bone providing the data that contribute to the national study of Late Saxon towns, defences, suburbs etc.), or whether it is more closely tied to the study of assets special to Oxford, uniqueness/rarity, the quality of preservation or the availability of national academic synthesis for a given asset type.

3.1.6 Rapid desk based reviews and planning case study overviews of the following post-PPG16 sites have also been provided (the inclusion of the sites in the list does not imply retrospective national significance, they have been selected because they allow the themes set out in 6.2.4 to be examined).

- St John's College Elizabeth House Extension (Late Neolithic henge and multiple burials from a 10th-11th century massacre)
- Lincoln College (Saxon buildings, pottery and grain deposits, medieval college buildings including the kitchen and related environmental remains)
- Merton College (archaeology of an early and well documented medieval Oxford College)
- The Radcliffe Infirmary Burial Ground (18th-19th cemetery)
- The Radcliffe Observatory Quarter (linear barrow cemetery and possible mortuary enclosure)
- Queen Street/St. Aldates Tenements

3.2 Review the significance and extent of known sites of importance

3.2.1 Task 3: *Produce short case studies looking at the application of existing SAM criteria to the following (this can include a review of the Statements of Archaeological Importance produced for a number of key Oxford Assets produced as part of the Oxford Archaeological Plan):*

- The Fransciscan Friary
- University Parks Linear Barrow Cemetery
- Saxon and medieval town defences
- Abingdon Road Norman Causeway
- Islands of survival – Peckwater Quadrangle.

3.2.2 Issues considered include:

- What are the problems with assessment and definition for each site?
- What aspects of the definition of these assets might be better served by criteria additional to the current SAM criteria?
- How useful is the Conservation Principles approach to assessing these sites?
- To what extent can the nationally important elements of each be described or mapped?

3.3 Consideration of the issues for development of problematic and ill-defined sites and areas

3.3.1 Task 4: *Summarise the issues around these more problematic application of National Importance relating to*:

- Well-preserved urban street frontage deposits
- Well-preserved tenement deposits – especially those related to the evolution of academic halls or specialist activity.

3.3.2 This is considered a key issue for developing a more informed response to current development pressure in the centre of the historic town.

3.3.3 Task 5: *Summarises the issues relating to application of the concept of national importance to poorly spatially defined or characterised assets:*

- The poorly understood friary precincts
- The second gravel terrace prehistoric landscape
- Our understanding of the Thames river crossing
- Potential for unique educational or science related equipment
- Archaeology of conviviality (food and drinks remains – both artefacts and ecofacts)
- Academic Halls
- Unlocated assets relating to the medieval Jewish quarter and community
- Other nationally important assemblages/assets that might be present.

3.4 Comparison with Oxford's situation with other historic academic or similar sites.

3.4.1 Task 6: *Review of national and international parallels for medieval university remains and organise workshop.*

3.4.2 This involved the scoping out of the available data on comparable medieval university towns and major ecclesiastical centres (such as Canterbury and York):

- Medieval university infrastructure (schools, libraries etc.)
- Medieval academic halls
- Specialist buildings (museums, science structures)
- Medieval college buildings and their remains- gatehouses, kitchens, halls, quads, gardens, libraries, bell towers, accommodation, chapels, etc.
- Other monastic and religious sites.

3.4.3 A workshop was arranged to discuss the draft case studies from the project with other urban archaeological development control professionals involving the ALGAO Urban Committee.

PART II - BACKGROUND

4 ASSESSING SIGNIFICANCE

4.1 Assessing national significance (importance) of non-scheduled heritage assets

4.1.1 The National Planning Policy Framework (NPPF, March 2012) paragraph 139 states that where non-scheduled heritage assets are 'demonstrably of equivalent significance' to scheduled ancient monuments (SAMs) then they should be subject to the same policies as designated assets. The principles for selection of SAMs, republished by the DCMS October 2013, are therefore currently the relevant criteria for the assessment of national significance. There are also a number of English Heritage *Selection Guides* that give detailed guidance about what may be eligible for scheduling, and provide an additional layer of information about certain asset classes, but which remain broad in scope and general in terms of detail.[2]

4.1.2 The separate evolution of SAM legislation and planning policy has, introduced a conceptual problem into the process of assessing significance in that the intended objectives of the two processes are not the same. The SAM principles of selection criteria relate to the *Ancient Monuments and Archaeological Areas Act 1979* (AMAA) and are designed to allow the selection of high value 'example' sites for protection that may or may not be under immediate development threat. The AMAA Act itself does not address this matter but the English Heritage website usefully states that '*Scheduling is reserved for carefully selected sites, which create a representative sample from different epochs'* (What Can Be Scheduled; English Heritage website, accessed 1.10.2014). The SAM principles of selection therefore weigh a series of factors that are designed to identify exemplar sites rather than necessarily focus on archaeological 'interest' of assets facing immediate threat from development.

4.1.3 The NPPF states that local authorities should recognise that heritage assets are an irreplaceable resource and conserve them in a manner appropriate to their significance. Local authorities should take into account the desirability of sustaining and enhancing the significance of heritage assets. Significance may be understood in terms of an asset's archaeological interest (where an asset holds, or potentially may hold, evidence of past human activity worthy of expert investigation at some point) or other potential interests (artistic, historic, architectural) and values (historical, evidential, aesthetic, architectural).

4.2 Recognising national importance within the planning process

4.2.1 Under the current National Planning Policy Framework the requirement for Local Planning Authorities to assess non- designated assets for national significance can arise either at the pre-application stage or within a standard 8 or 13 week planning application timescale, depending on the approach of the applicant. In some cases, Planning archaeologists may even find themselves requesting further information to assess the asset in question within the 8 or 13 week timescale and therefore could conceivably obtain crucial field evaluation information about the asset with weeks or days to go until the determination date. Therefore any process that might be established to allow either the English Heritage local offices or the national designation team to provide rapid advice on the national importance of such assets

[2] There are 18 thematically-arranged selection guides available online: http://www.english-heritage.org.uk/caring/listing/criteria-for-protection/scheduling-selection-guides/

would need to take account of this tight timescale, either by accepting that advice may have to be based on the perhaps incomplete information available at the planning application registration date or by accepting that it may be necessary to request the suspension of the application for a suitable consultation period should important field evaluation information be received once the application clock is ticking. This is clearly not a straight forward matter as requests for such suspensions may be a cause for concern for Local Authorities focused on planning performance and delivery targets.

4.3 The current DCMS Principles of Selection

4.3.1 The DCMS policy statement on *Scheduled Monuments and Nationally Important but Non Scheduled Monuments* (October 2013), para 9 states that nationally important but non-scheduled monuments can include either those identified by English Heritage as being capable of being scheduled but which the Secretary of State has chosen not to designate, or those capable of being designated but which have still to be formally assessed. In seeking to make an assessment of national significance, local planning archaeologists are therefore being asked to make an informed judgement as to whether an asset is subsequently likely to be assessed by English Heritage as nationally important.[3]

4.3.2 The 2013 DCMS statement on scheduling introduces some further concepts in addition to the principles of selection:

- Recognition that associative or illustrative historic interest can help an assessment of significance (there is some confusion between historic interest and historic value here).
- A note on how an asset might contribute to our perceptions of cultural identity and spirit of place, including the character of our landscapes and seascapes.
- A recognition that the setting of a monument contributes to its significance.
- A note that heritage interest can also be artistic or 'traditional' (the latter is not defined).
- It also defends the idea of anticipating the existence and importance of evidence as opposed to specifically demonstrating its existence:

  'it may be possible to document reasons for anticipating the existence and importance of such evidence. The greater the likelihood that such evidence would be revealed through expert investigation, the stronger will be the justification for designation'.

4.3.3 The principles of selection criteria were first published in 1983 (DoE 1983) and were subsequently adapted for use by the Monument Protection Programme, which was originally based on a scoring methodology (Startin 1993).

4.3.4 The MPP criteria were based on 'monument discrimination' criteria:

- Survival
- Potential
- Diversity (features)
- Amenity value
- Documentation (archaeological)

[3] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/249695/SM_policy_statement_10-2013__2_.pdf

- Documentation (historical)
- Group value (association)
- Group value (clustering).

4.3.5 And 'class characterisation' criteria:

- Period (currency)
- Rarity
- Diversity (form)
- Period (representativeness).

4.3.6 These have evolved into the following criteria cited by DCMS in 2013 (Annex 1 Principles of Selection :

- Period
- Rarity
- Documentation/finds
- Group value
- Survival/condition
- Fragility/vulnerability
- Diversity
- Potential.

4.3.7 The 2013 DCMS statement on scheduling goes on to state that the selection principles 'should not be considered definitive' but are indicators that contribute to a broader judgement based on individual circumstances.

4.3.8 On the question of significance, it also states (in Annex 1):

> *Not all monuments are of equal significance. Their importance can Be gauged by the level of heritage interest they hold for current and future generations . This is defined in terms of their archaeological, architectural, artistic, historic or traditional interest, particularly their:*
>
> - ***Archaeological interest***
>
> *Interest in carrying out expert investigations at some point into the evidence places hold, or potentially may hold, of past human activity . Monuments with archaeological interest form a primary source of evidence relating to the substance and evolution of places, plus the people and cultures that made them.*
>
> - ***Historic interest***
>
> *Interest in how the present can be connected through a place to past people, events and aspects of life. Monuments with historic interest provide a material record of our nation's prehistory and history, whether by association or through illustration.*

4.4 The Scheduling Selection Guides

4.4.1 A series of thematic scheduling selection guides have been produced by English Heritage provide a further layer of asset specific background information and criteria that may aid assessment of an asset.[4] These will normally contain a national overview and 'designation considerations' targeted at specific groups of assets by type or

[4] http://www.english-heritage.org.uk/caring/listing/criteria-for-protection/scheduling-selection-guides/

period. The application of these to selected Oxford case studies is considered further below in Section 9.

4.5 International obligations

4.5.1 The SAM principles of selection are also intended to meet Britain's obligations under a series of international conventions: the *1992 European Convention on the Protection of the Archaeological Heritage* and the *1972 Convention Concerning the Protection of the World Cultural and Natural Heritage.*

4.6 The English Heritage Conservation Principles

4.6.1 Apart from purely archaeological considerations, the basis of assessment in, for example, conservation plans typically follows the approach established in *Conservation Principles, Policy and Guidance for the Sustainable Management of The Historic Environment* (English Heritage 2008).

4.6.2 The family of heritage values set out in that document (paragraphs 30–60) addresses the significance of heritage assets in terms of its evidential, historical, aesthetic and communal value.

4.6.3 **Evidential value** derives from the potential of the site to provide evidence of past human activity. The archaeological resource (both above and below ground) and its potential capacity to respond to investigative analysis make the primary contribution to evidential value.

4.6.4 **Historical value** derives from the way in which past people, events, and aspects of life can be connected through a place to the present. This includes associative, illustrative and representational value, and encompasses among other things rarity of survival, the extent of associated documentation, the ability to characterise a period, and association with other monuments.

4.6.5 **Aesthetic value** derives from the way in which people draw sensory and intellectual stimulation from a place. This includes not only formal visual and aesthetic qualities arising from design for a particular purpose, but also more fortuitous relationships of visual elements arising from the development of the place through time, and aesthetic values associated with the actions of nature.

4.6.6 Less tangible, but still vital to the significance of the monument, is its **communal value**, at the heart of which are the multivalent meanings which a place may have for contemporary society. Commemorative and symbolic values are founded in collective memory and historic identity (including reminding us of uncomfortable aspects of national history), while social value often derives from contemporary uses of a place. Spiritual value can come from the customs and teachings of organised religion as well as less formal beliefs, and is often associated with places sanctified by a long tradition of veneration.

4.6.7 The English Heritage values have been found to be eminently practical in assessing heritage assets in the context of e.g. Conservation Plans and Environmental Assessment, and employed below in Section 5 for comparison purposes. They do not necessarily address the specific nature of archaeological remains, for which the approach of the 'selection criteria' remains wholly appropriate.

4.7 Degrees of Significance

4.7.1 The assessment of significance, again in the context of Conservation Plans and Environmental Assessment, requires an agreed semantic, either within each of these four main categories of heritage value, or as an overall assessment. While there has always been debate about the use of 'national/regional/local' categories, the following degrees of significance can typically be employed:

[A] ***Outstanding***: elements of the place that are of key national or international significance, being among the best or only surviving examples of an important type of monument, or being outstanding representatives of important social or cultural phenomena.

[B] ***Considerable***: elements that constitute good and representative examples of an important class of monument (or the only example locally), or that have a particular significance through association (although surviving examples may be relatively common on a national scale), or that make major contributions to the overall significance of the monument.

[C] ***Moderate***: elements that contribute to the character and understanding of the place, or that provide a historical or cultural context for features of individually greater significance.

[D] ***Low***: elements that are of low value in general terms, or have little or no significance in promoting understanding or appreciation of the place, without being actually intrusive.

[U] ***Uncertain***: elements that have potential to be significant (e.g. buried archaeological remains) but where it is not possible to be certain on the basis of the evidence currently available.

[I] ***Intrusive***: items that detract visually from or that obscure understanding of more significant elements. Recommendations may be made on their removal or on other methods of mitigation.

5 ASSESSING OXFORD AS A CITY-WIDE RESOURCE

5.1 Oxford and its landscape

5.1.1 The modern city has an approximate population of 153,000 with 32,000 full time students enrolled in the city's two universities in 2009/10. Oxford remains an international draw for visitors with an estimated 9.5 million people visiting each year. The Local Authority Area covers an area of 17.6 square miles, encompassing parts of the historic counties of Oxfordshire and Berkshire. The historic city is located on the edge of a gravel terrace on the banks of the River Thames at its confluence with the River Cherwell. An extensive late Georgian, Victorian and modern suburb extends north of historic Oxford along the gravel terrace. To the south, modern settlement extends along a historic crossing point over the Thames Floodplain and to the east and south-east of Oxford extensive modern suburban development, spurred by Oxford's industrial growth from the early 20th century, has engulfed a number of former hinterland villages located on or below an area of high ground formed by Corallian ridge. To the west, outside the Local Authority Area, the Jurassic hills of Wytham and Boars Hill help form the setting for Oxford, a low lying city of spires nestling within gentle hills. Settlement remains sparse along the floodplains of the Cherwell and Thames and a large and important area of ancient grazing meadow survives to the north of the city, adjacent to the Thames, at Port Meadow.

5.2 The Archaeology of Oxford

5.2.1 A short overview of the archaeology of Oxford and the history of its study is provided in the introduction to the Oxford Archaeological Plan and will not be repeated in this document.[5]

5.2.2 Over half a century of more or less systematic investigation of the archaeology of Oxford revealed in the course of new building and development has led to a great increase in knowledge of the early history of the city and its environs for almost every period.

5.2.3 For each prehistoric and historic period key archaeological sites and assemblages can be identified within the Local Authority Area, but ascribing local/regional/national significance to each in a systematic way, given the large body of data, would be impractical for a study of this scope. Instead short subjective and indicative judgements are provided which might be challenged or amended by more detailed specialist review. These following outline summaries by period (from Prehistoric to Medieval) of the general character and significance of the archaeological resource have been assessed using both the range of statutory Scheduling Criteria and also the set of values in *Conservation Principles*, partly to demonstrate the similarities and differences between the two approaches.

5.3 Prehistoric Oxford

5.3.1 *Archaeological Evidence:* There is now considerable evidence of prehistoric activity in Oxford, on the level plain of the main gravel terrace, and in the surrounding alluvial valleys.

[5] http://www.oxford.gov.uk/Library/Documents/Planning/Archaeology%20Introduction.pdf

5.3.2 A Lower Palaeolithic flint assemblage was recovered from an ancient channel in the Wolvercote Brick Pit, and from its size and quality is thought to have been from an unrolled deposit (which has also produced important environmental evidence), and is thus of considerable rarity.

5.3.3 Cropmarks in the University Parks have long been known, and previous observations by field inspection and aerial photography have now been amplified by geophysical survey, with the mapped evidence suggesting a well-preserved Neolithic to Bronze Age funerary and ritual landscape.

5.3.4 *Context:* Evidence of other Bronze-Age barrow burials in central and north Oxford has accumulated in the last 60 years, and the very recent discovery of what seems to be a Neolithic 'henge' monument centred on Keble College suggests that the Oxford barrow field may have been a 'ritual landscape' around a ceremonial centre. Evidence of domestic and agricultural activity around sites on Port Meadow that were first identified by aerial photography suggests a different range of activities in that area, and all these sites have also provided important environmental evidence for the history of the Thames floodplain around Oxford. Later prehistoric sites may include the circular enclosure at Binsey, that may be an example of a Thames valley low-lying 'hillfort', like the one at Bladon.

5.3.5 Evidence from Oxford is comparable with the results of excavation and field survey in the middle and upper Thames in the last 80 years, that have revealed a vast amount of information about prehistoric landscapes of the Thames Valley. Environmental evidence from other sites (e.g. Farmoor and Sydling's Copse) has added to the overall understanding of river regimes and vegetation history. The Thames itself is also important as a source of finds (some perhaps ritually deposited).

5.3.6 *Significance:* The Oxford sites are of considerable importance, and are part of the wider grouping of prehistoric activity in the middle and upper Thames Valley, which is of national importance.

5.3.7 *Scheduling Criteria*

Period	Prehistoric (Neolithic to Iron Age)
Rarity	Rare locally in Oxford, but part of a wider regional pattern
Documentation	Analysis of aerial photographs and a series of recent field investigations of high standard have established the evidential base for this material
Group value	Association with similar sites in the area (e.g. Stanton Harcourt)
Survival/ condition	Locally surviving in good condition where not destroyed by urban development, but also surviving partially in developed areas
Fragility/ Vulnerability	When recognised, these deposits can be of limited extent and vulnerable, though elsewhere (e.g. in undisturbed grassland) the remains are robust
Diversity of attributes	The remains reflect social, economic and religious life, and finds may include flintwork, pottery, bones and human remains
Potential	There remains much potential generally, even if much of it is in uncertain locations

5.3.8 *Conservation Principles:*

Evidential value	Limited evidence, but very instructive
Historical value	Important for discovering the earliest activity in the city
Aesthetic value	Limited value except where visible (e.g. Port Meadow)
Communal value	Knowledge of discoveries and the few visible remains would be of interest

5.3.9 *Conclusion:* The remains of Prehistoric Oxford are of at least ***Regional Importance***, while being part of a wider area (the middle/upper Thames Valley) whose prehistoric remains are of ***National Importance***.

5.4 Roman Oxford

5.4.1 *Archaeological Evidence:* There is only localised evidence for small-scale habitation of Oxford in the Roman period (e.g. around South Parks Road and the University Science Area), but in east Oxford (skirted by the Roman Road from Alchester to Dorchester) there are major remains of the Oxford pottery industry.

5.4.2 A series of kilns ranged along the Corallian Ridge (and former common land) in east Oxford are part of a major local industry in the Roman period, producing pottery from the 1st to the 4th century. An important site was excavated at the Churchill Hospital in the 1970s.

5.4.3 *Context:* The kilns were producing specialist wares (*mortaria* kitchen utensils) and fine colour-coated table ware that were exported throughout southern Britain. The Oxford kilns were part of a wider spread industry that extended further along the Roman road north towards Otmoor and south towards Nuneham Courtenay (i.e. in Cherwell and South Oxfordshire Districts).

5.4.4 The routes of Roman roads through Oxford have long been a matter for conjecture, but little evidence of concentrated habitation has been found in central Oxford, except for a small farm or hamlet in the South Parks Road area. The nearest villa site is the Barton/Elsfield villa discovered in the 19th century with remains of some quality. The eats Oxford kilns represent the most important area of Roman activity in Oxford.

5.4.5 *Significance:* The Oxford Roman pottery industry is of considerable importance in itself as a well-documented example, with its products recognised across Britannia, though it is not unique, and is comparable with other production areas (e.g. Nene Valley and New Forest), that are of national importance.

5.4.6 *Scheduling Criteria*

Period	Industry active for much of the Roman period
Rarity	Pottery industries are widespread in Britannia, but this is one of the major examples
Documentation	Several sites of kilns have been excavated and the types of products have been identified locally and nationally
Group value	Association with similar sites in the immediate area outside the

	City
Survival/ condition	Locally surviving in good condition where not destroyed by urban development, but also surviving partially in developed areas
Fragility/ Vulnerability	The remains of kilns and their products are quite robust, but the sites lie within areas of continuing development pressure
Diversity of attributes	The remains reflect industrial activity of pottery production, though other sites in Oxford have evidence of farming and domestic activity
Potential	There remains much potential generally, if much of it is in uncertain locations

5.4.7 *Conservation Principles:*

Evidential value	Considerable and widespread evidence, and very informative
Historical value	Important for contributing to Oxford's past with a coherent Roman episode of some significance
Aesthetic value	Limited value except in its products
Communal value	Knowledge of discoveries and visible examples of kilns and products are significant

5.4.8 *Conclusion:* The remains of Roman Oxford and its pottery industry are certainly of ***Regional Importance***, and taken together with remains in nearby Districts are of ***National Importance***.

5.5 Anglo-Saxon Oxford

5.5.1 *Archaeological Evidence:* The rediscovery of late Saxon Oxford has been one of the significant events of the archaeology of Oxford in the last 60 years. Important remains of the primary fortifications of the late Saxon *burh* have been recovered in a number of locations, and the evidence of domestic and industrial activity has been widespread within the walled area.

5.5.2 *Defences:* Remains of an earth rampart with a timber palisade, and subsequent reinforcement with a stone wall have now been uncovered at several points in what is thought to be the primary defended area (centred on Carfax), and also in what have been proposed as extensions to the east (e.g. in New College) and to the west (e.g. in the Castle). The red earth of the primary rampart (from Oxford's natural ploughsoil) has been a common feature of the ramparts.

5.5.3 *Settlement:* Domestic activity in late Saxon Oxford was first recognised in 'cellar pits' containing domestic rubbish, now seen to be the remains of substantial houses with sunken floors (like the York Coppergate houses), and smaller rubbish, storage and cess pits. The finds of pottery, objects and bones have provided an increasingly detailed view of domestic and industrial activity in the town. Destruction by fire has been seen as a common feature of several domestic sites.

5.5.4 *Context:* The archaeology of Late Saxon Oxford has developed in the context of a national programme of urban discovery (e.g. Winchester, Southampton, London) arising from urban development in the 1960s-80s that provided a context of comparable remains, and a developing narrative of urban growth in Alfredian and Late Saxon England as a response to Viking attacks. In Oxford the narrative also extends back to the 8th century with the legend of St Frideswide, and the exploration of sites associated with the saint at Binsey and Oxford Cathedral. The recent discovery of a mass-burial site in St Giles's Street may relate to a known historical episode of massacre of Danish inhabitants.

5.5.5 The pre-conquest church of St Michael at the Northgate has long been recognised, but the realisation that St George's tower in the Castle may also be a defensive and ecclesiastical monument is an unexpected addition to the English corpus of pre-conquest buildings.

5.5.6 The historical context of Late Saxon Oxford includes its appearance in the *Burghal hidage* listing of places defending the perimeter of Wessex (though Oxford actually lay in Mercia), a series of references in the *Anglo-Saxon Chronicle* that imply it was an important place in the Kingdom of England, and an unusually detailed entry in *Domesday Book* (1086) which records the survival of an English property-owning elite, and a prosperous town. Both sources underline the connexions between the town and its hinterland

5.5.7 *Significance:* The archaeology of the urban development of Late Saxon Oxford is of considerable importance in itself and in the context of urban development in southern England, and thus of national importance.

5.5.8 Scheduling Criteria

Period	Activity in Saxon Oxford extends from the 8th century to the Norman Conquest in 1066
Rarity	The finds in Oxford are comparable with those in other towns, but Oxford is one of a small group with significant Late Saxon archaeology
Documentation	Many defensive and domestic sites have been excavated and reported, and the historical context provides a good body of material for comparison and debate
Group value	The site is *sui generis* but has comparative sites at e.g. Wallingford and Cricklade on the Thames
Survival/ condition	Locally surviving in good condition where not destroyed by urban development, but also surviving partially in developed areas
Fragility/ Vulnerability	The remains of Saxon Oxford are quite robust, but their occurrence is unpredictable, and potential sites lie within areas of continuing development pressure
Diversity of attributes	The remains reflect a diversity of defensive, domestic and industrial activity, in pottery, finds and environmental remains
Potential	There remains much potential generally, if much of it is in uncertain locations

5.5.9 *Conservation Principles:*

Evidential value	Considerable and widespread evidence, and very informative
Historical value	Important for contributing to Oxford's past with a coherent Mid-to Late Saxon narrative
Aesthetic value	Limited value except in its finds, but the buildings have considerable appeal
Communal value	Knowledge of discoveries and visible examples of finds and buildings is an important part of Oxford's perception of its heritage

5.5.10 *Conclusion:* The remains of Late Saxon Oxford, including its remains of defences and domestic sites, of the life and economy of the town, and its standing buildings are very good examples of pre-Conquest urban activity of an important Late-Saxon town, and are of ***National Importance***.

5.6 Later Medieval Oxford

5.6.1 *Archaeological Evidence:* The information revealed about the medieval town in recent decades has been important and wide ranging, on domestic, academic and ecclesiastical aspects, while the discovery of built heritage both above and below ground, and the study of material culture (notably pottery) have made a notable contribution.

5.6.2 *Defences:* Further amplification of the understanding of the medieval stone walling of the town has included the realisation that Oxford had a double wall in the north-east sector, and studies of the development of the town gates and the relationship of the walls to the castle. Discoveries in the castle have revealed more about the pre-conquest phases, but the exploration of the (east) barbican and the stone tower on the mound have been important additions to knowledge of the castle.

5.6.3 *Settlement:* Domestic activity in the town centre and suburbs has been extensively explored, demonstrating the complexity of building activity and waste disposal, the survival of deposits beneath later college gardens and quadrangles, and the development of suburban housing. Again, the finds of pottery, objects and bones have provided an increasingly detailed view of domestic and industrial activity in the town.

5.6.4 *University and Church:* The growth of the university only gradually made a physical impact on the town, but it also attracted communities of religious (notably the friars, Benedictine and Cistercian monks), whose archaeology has been explored with important results. The development of parish churches has been studied at All Saints Church and St Peter-in-the-East. The secular buildings of academic halls and colleges have been well studied architecturally and archaeologically, above and below ground.

5.6.5 *Historical Evidence:* The remarkable quantity of documentary evidence for Oxford preserved in college archives is comparable with some other towns but has been studied to an unusual degree in the reconstructed map and property histories compiled by the Revd. H.E. Salter. This information has made a major contribution to archaeological questions, and established a dialogue between historical, topographical and archaeological aspects of the town's past.

5.6.6 *Context:* As with the Late Saxon period, the study of Oxford has developed in the context of a national programme of urban discovery (e.g. Winchester, Southampton, London), amongst which Oxford has benefited both from a large amount of work and a successful publication record. There is perhaps less comparable data than might be expected coming from Cambridge as another medieval university town, but the place of Oxford in the practical and academic development of Medieval Archaeology (e.g. by Bruce Mitford, Jope, and Pantin) is notable and in that respect contrasts with the experience of Cambridge.

5.6.7 The historical context of medieval Oxford sees its decline from an important Saxon and Norman town to a town of more modest pretensions, then witnessing growth and activity arising from its academic and ecclesiastical institutions. This is documented in many other contexts (e.g. intellectual life and book production) that makes Oxford's contribution an unusual one, while also sharing in many commonplace aspects of medieval urban life that is reflected in its archaeology.

5.6.8 *Significance:* The archaeology of the medieval town and university is of outstanding importance in itself and in the context of urban life in medieval England, and thus of national importance.

5.6.9 Scheduling Criteria

Period	Activity in later medieval Oxford extends from the Norman Conquest to the mid-16th century
Rarity	Oxford's experience as a university town can only be compared with Cambridge, while being generally comparable with other towns.
Documentation	Many sites of all kinds have been excavated and reported, and the historical context provides a remarkable body of material for comparison and debate
Group value	The place (with Cambridge) is *sui generis* but has comparative sites at e.g. Winchester, Southampton, Bristol and London.
Survival/ condition	Locally surviving in good condition where not destroyed by urban development, but also surviving partially in developed areas
Fragility/ Vulnerability	The remains of medieval Oxford are quite robust, but their occurrence is unpredictable, and potential sites lie within areas of continuing development pressure
Diversity of attributes	The remains reflect a diversity of defensive, ecclesiastical, academic, domestic and industrial activity, in pottery, finds and environmental remains
Potential	There remains much potential generally, if much of it is in uncertain locations

5.6.10 *Conservation Principles:*

Evidential value	Considerable and widespread evidence of many kinds (above and below ground), and very informative of life and manners

Historical value	The medieval period is important for contributing to Oxford's past as a major component of the perception of its history and national significance as a university town.
Aesthetic value	Limited value except in its finds and monuments (e.g. sculpture and stained glass), while the architecture of collegiate and other buildings have considerable appeal
Communal value	Knowledge and awareness of discoveries and visible examples of finds, monuments and buildings is an important part of Oxford's perception of its heritage

5.6.11 *Conclusion:* The remains of medieval Oxford, including its ecclesiastical and collegiate remains as well as defences and domestic sites, of the life and economy of the university town, and its standing buildings are an outstanding example of a medieval university town, and are of ***National Importance***.

5.7 Conclusions

5.7.1 This exercise has been worth undertaking, for while not producing any very surprising results, it has allowed consideration of the extent to which Oxford can be considered solely on its own terms, or needs to be considered in geographical and period contexts.

5.7.2 The place of an historical context and the importance of historical records is also a significant consideration, particularly in the later periods. The dialogue between historical and archaeological data has always been a major component of medieval archaeology, and was an especial concern of W.A. Pantin (1902-1973), Reader in Medieval Archaeology in the University of Oxford, and an early proponent of the archaeological study of buildings, particularly in Oxford.

5.7.3 The comparison between the 'Scheduling Criteria' and 'Conservation Principles' has proved instructive. The first of these allows more careful consideration of the special nature of archaeological information, while the second allows a wider regard for impact and public interest. Both of these would seem to be relevant approaches.

PARALLELS FOR MEDIEVAL UNIVERSITY TOWNS [TASK 6]

6.1 Introduction – Task 6

6.1.1 Task 6 is a review of national and international parallels for medieval university remains.

6.2 Oxford, Cambridge and elsewhere

6.2.1 As a collegiate university town, Oxford's sole historic parallel in these islands is Cambridge, while the ancient Scottish university of St Andrews (dating from 1413) is of a different scale and character.

6.2.2 In both Oxford and Cambridge the universities have become collegiate, where once the majority of medieval students lived in halls and hostels, and the colleges were reserved for a minority of scholars (usually post-graduates) supported in an endowed institution.

6.2.3 There were collegiate universities in Europe (e.g. Paris, France and Coimbra, Portugal), though their fabric and institutions have generally not survived to anything like the degree they have in Oxford and Cambridge.

6.3 The character of university towns compared

6.3.1 The essential character of the two university towns is the extensive space taken by college buildings, their courts/quadrangles, and gardens, occupying land that was once streets and houses occupied by townsmen. This has both created an archaeological character of its own, and also to some degree preserved beneath grass and paving remains of the earlier occupation of their sites. The extent of this is remarkable and (for Oxford and Cambridge) unique in these islands.

6.3.2 The nearest historic parallels would be the great ecclesiastical cities like Canterbury and York, and regional centres such as Norwich and Bristol, where the number of parish churches, religious houses and secular institutions (guildhalls, almshouses, hospitals, etc.) has produced a similar complex distribution of domestic and other structures and precincts, but with fewer surviving internal spaces and gardens.

6.4 The character of the university town

6.4.1 The physical character of a university town like Oxford and Cambridge derives from some specific features to be found in them more than elsewhere:

6.4.2 *Medieval university infrastructure*: for the medieval period these were neither extensive nor prominent. The schools were with a few exceptions little different from town houses, and until the few administrative buildings and libraries were built in the later medieval period the university authority had little presence on the urban scene.

6.4.3 Medieval academic halls: The most numerous features of the university town were the 'academic halls' (in Oxford) or 'hostels' (Cambridge) in which the majority of students lived. Again, as Pantin showed in Oxford, these were little different from the better rank of town houses with halls and chambers (Pantin 1964).

6.4.4 *Medieval colleges:* Medieval colleges were few in number and provided accommodation for relatively few (mostly graduate) students. Only in the post-medieval period did they become the principal providers for all. Having started often with an irregular and piecemeal plan, with separate halls, kitchens, chapels, domestic ranges, gatehouses and libraries (in some ways not so different from a large manor

house) they developed specific forms of building in quadrangles (Oxford) or courts (Cambridge) that were reminiscent of but not very similar to monastic cloisters. Cloisters might be provided separately (All Souls, New College), or incorporated into the plan (Magdalen, Christ Church). Separate bell towers were also sometimes a feature. The space taken by the buildings, quadrangles, and gardens (reflecting the ease of acquisition of extensive urban properties by founders and their successors) replaced the sites of houses and streets with land that might remain undisturbed for centuries, preserving earlier urban deposits to an unusual degree.

6.4.5 *Other monastic and religious sites:* The University attracted the mendicant orders, and Oxford was one of the first places sought by the first Franciscan and Dominican missions to England, and others orders followed, so that student friars could participate in the university. Monastic houses were already present before the appearance of the university in the late 12th century, but some foundations (e.g. Rewley Abbey) appeared specifically as places of learning. The monastic colleges provided for training monks who were granted leave in Oxford might (as at Durham (Trinity) and Canterbury colleges) be little different from secular colleges, but at Gloucester (Worcester) College the separate accommodation provided by each monastery is a remarkable feature that still survives.

6.4.6 *Specialist buildings and activities:* The post-medieval and modern university saw the appearance of a large number of buildings devoted to specific aspects of learning: libraries, laboratories and museums, with particular architectural characteristics, and a very specific archaeological potential. The production of books was a vital aspect of the university, from the making of parchment, to the trades of scribes and illuminators, and later or printing. The presence of a street devoted to the book trade (Catte Street) is notable. In the post-medieval town the presence of apothecaries providing specialist medical services (effectively as private hospitals) is known in Catte Street and High Street.

6.4.7 *Interior and external spaces:* The archaeology of the domestic interior has long been studied in Oxford, with the discovery of wall-paintings and other evidence for décor. Likewise the attention paid to gardens was a notable feature of post-medieval college life, and the archaeology of the changing garden layouts has been advanced more recently.

6.4.8 *Historical documentation:* One notable characteristic of Oxford is the survival of very extensive documentation for landholding, from the 12th century onwards, owing both to the survival of monastic records in college archives and the colleges' own records of land acquisition and management. These range from medieval title deeds to modern leases and property maps, and cover a large proportion of the town and its hinterland. Important surveys such as the 1279 Hundred Rolls and the 1772 paving tax with frontage measurements are of value for locating sites, as are the usual run of national taxation records.

6.4.9 The potential of these records has been explored by the Rev. H.E. Salter (1863-1951), who produced over thirty volumes of record transcripts for the Oxford Historical Society. His *Map of Mediaeval Oxford* published in 1934 (drawn on the base of the OS 1:500 town plan of 1875) was based on the information he had accumulated in a series of topographical notebooks, that were published posthumously (and incompletely) as Salter's *Survey of Oxford* (OHS 1960; 1968). Curiously, although similar evidence exists for Cambridge, there is little evidence of its having been used since the maps of college sites were produced by Willis and Clark in 1886.

PART III – REVIEW OF DEVELOPMENT IMPACT AND CASE STUDIES

7 REVIEW OF DEVELOPMENT IMPACT ON THE ARCHAEOLOGICAL RESOURCE [TASK 1]

7.1 Survey of areas excavated

7.1.1 The Urban Archaeological Database (UAD) covers an area of 750ha comprising a series of Ordnance Survey grid squares forming a box around the historic core of Oxford measuring 2.5 by 3km. The *City Centre Archaeological Area* referred to in the Local Plan covers a smaller area broadly defines the extent of the post-medieval town (as enclosed by the Civil War defences).

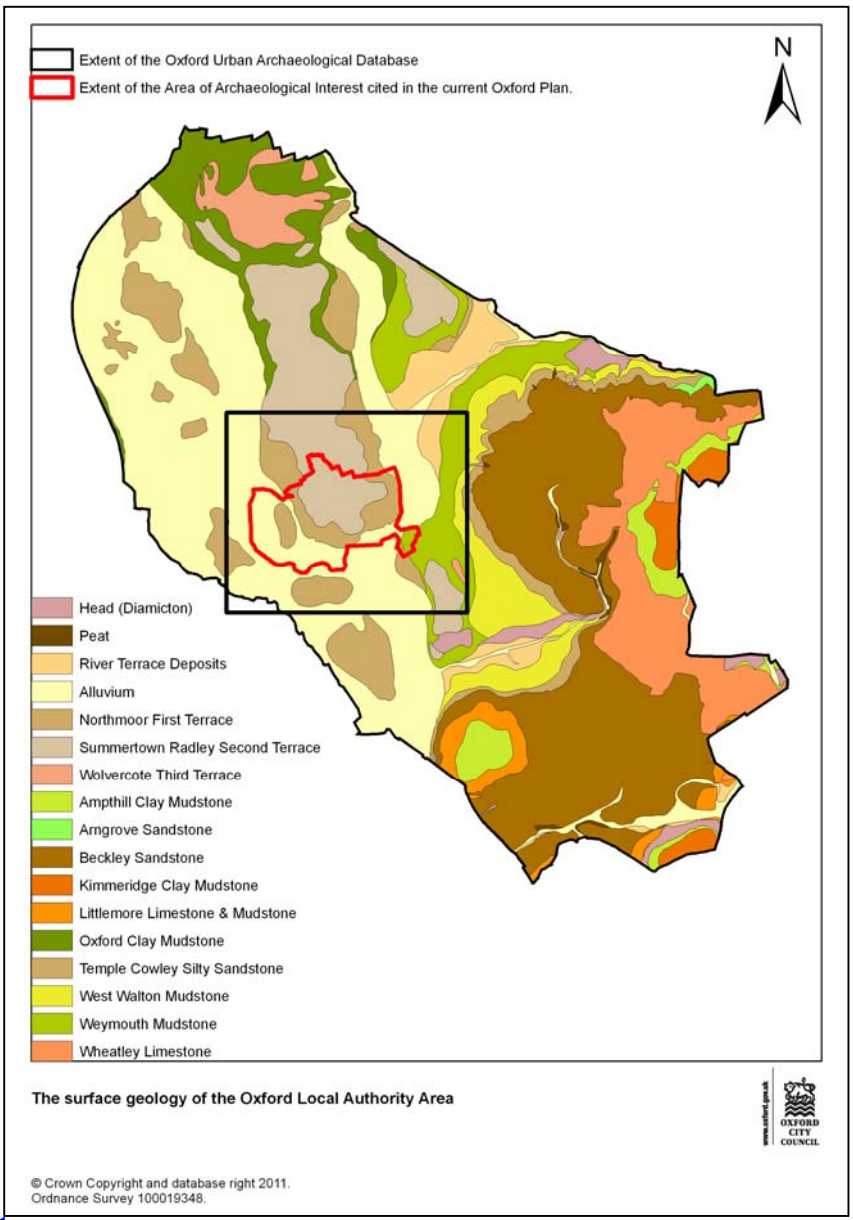

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Figure 7.1 Map of Oxford showing UAD and CCAA Areas

7.1.2 The impact of development can be assessed in a number of ways, such as the number of archaeological interventions secured through the planning system, the volume of finds, and the areas removed in square meters, but such figures only point to general trends and do not speak to the 'value' of material removed from the ground. Nevertheless, in an attempt to provide some general context some figures are provided below showing broad patterns in the data since the advent of *Planning Policy Guidance Note 16*, which integrated archaeology into the planning process in November 1990.

7.1.3 Over 90 archaeological interventions that have been recorded as 'excavations' have taken place within the Oxford Local Authority Area since January 1990. These works will have varied significantly in scale and depth, nevertheless in the Urban Archaeological Database zone that covers the post-medieval and earlier core of the City centre it is possible to use the mapped extent of these interventions to produce some statistics.

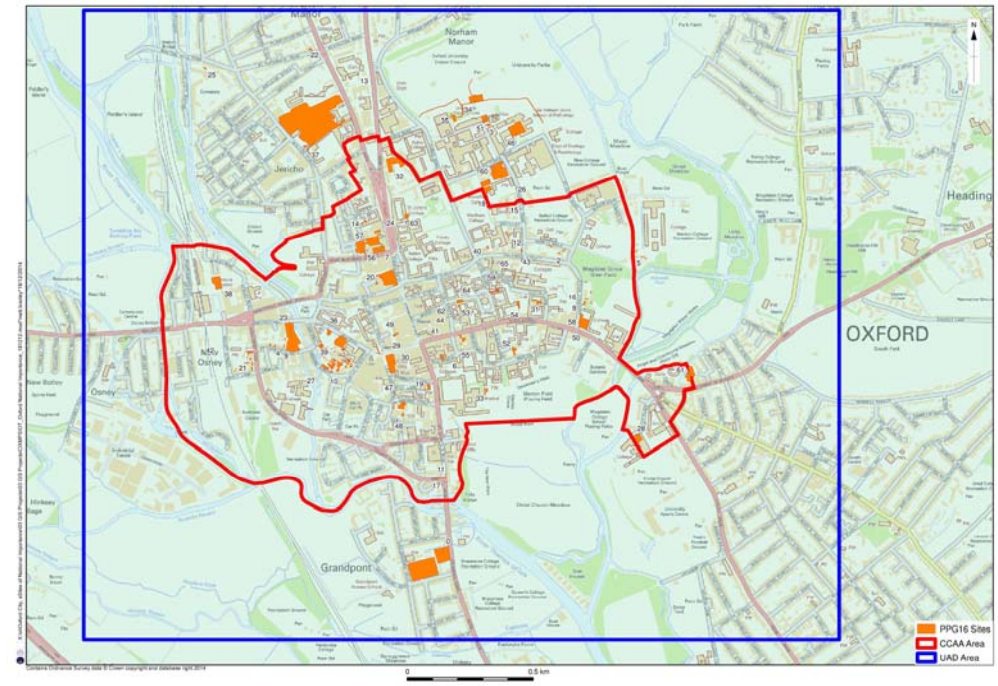

Figure 7.2 Map of central Oxford showing areas excavated since 1990 in relation to the CCAA zone

7.1.4 Figure 7.2 shows the areas excavated as part of PPG16 development works. The overall area of the CCAA which has been excavated is 27,850m² and the UAD area which has been excavated is 75,800m².

7.1.5 The following table lists in chronological order the excavations in Oxford between 1990 and 2013, noting which have been published in full or in summary form:

7.1.6 Table of Excavations in Oxford (modern parish) 1990-2013:

Excavations in Oxford since 1990

Site name	***Date***
St Aldates BT Tunnel	1991
New College Bell Tower	1991
Holywell Street	1991
Paradise Street	1991
St Anne's College	1991
St Cross College	1991
113-119 High Street	1992
Mansfield College	1992
Whitehouse Road	1992
Holywell Ford	1993
Jowett Walk	1993
New College	1993
New College Mound	1993
Rex Richards Building	1993
54-55 St Thomas's Street	1994
Ashmolean Museum Forecourt	1994
Boreham's Yard, Tidmarsh Lane	1994
Bodleian Library Reading Room	1994
Head of the River	1994
Blue Boar Street	1995
Longwall Quadrangle, Magdalen College	1995
105 High Street	1995
Lincoln College Kitchen	1997
64-65 St Thomas Street	1997
Queen Street and St Ebbes	1997
Christ Church Gardens	1998
Mansfield College	1998
St Aldates church	1999
5-7 Market Street	1999
Debenhams, 1-12 Magdalen Street	1999
4A Merton Street	2000
The Sackler Library	2001
All Souls College, The Codrington Library	2001
Park End Street and St Thomas Street	2003
Oxford Castle bailey ditch (with Castle)	2003
St Hilda's College, Cowley Place	2003
Senior Common Room, St Johns College	2004
New Chemistry Laboratory, South Parks Road	2004
Former Royal Mail Depot, Becket Street	2004
Rear of 69 Woodstock Road	2004
Staircase 3 and 4 Peckwater Quad, Christ Church	2005
Classics Centre, St Giles	2006
Ashmolean Museum	2006
New Auditorium, Corpus Christi	2008
Queens College Kitchen	2008
New Bin Store, Eagle Iron Works	2008
New Buildings and Kitchen, Mansfield College	2008
Former Queen Elizabeth House, St John's College	2008
Bonn Square	2008
Castle Mound	2008
Magdalen College School	2009

Excavations in Oxford since 1990

Site name	*Date*
Jesus College, Lift Pit	2009
New Electricity substation, Pembroke College	2009
Radcliffe Observatory Quarter (Radcliffe Infirmary)	2009
Oxford Molecular Pathology Institute	2009
Rainwater Attenuation Scheme (University Parks)	2009
Said Business School extension	2010
Queens College Lecture Theatre (Nun's Garden)	2010
Pembroke College, Brewer Street	2010
Oxford University Parks ducts	2010
The Turl Bar	2011
Wadham College, Graduate Study Centre	2011
6-7 High Street	2012
New Graduate Centre, Lady Margaret Hall	2012
Magdalen College, Longwall Quad	2012
New Library, Magdalen College	2012
Clarendon Centre, Shoe Lane	2013
Radcliffe Infirmary Burial Ground	2013
17-41 Mill Street	2013
24 Holywell Street	2013
St Clements St Car Park	2013

7.1.7 The following figure (7.3) shows for the Central Archaeological Area and the wider UAD area in Oxford the percentage of the total excavated area that was excavated within each five-year period since 1990. The UAD pie chart clearly show that there was a peak of excavations in the period 2005-9, whereas the CCAA pie chart shows a much more even spread of activity throughout the periods. The pie chart for the CCAA shows how the percentage of excavations has increased from 12% in the early 1990s to an average of between 19%-30% in subsequent five-year periods.

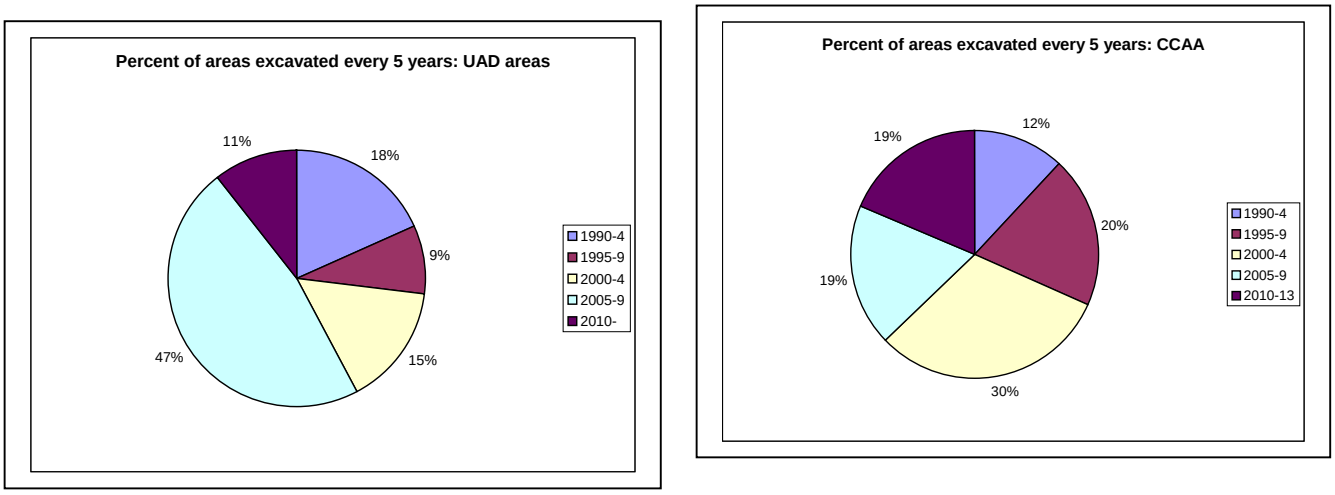

Figure 7.3 Chart showing the percentage of different areas excavated by quinquennium

7.1.8 For an overview of the extent of consented developments with basements within the central area please see maps (Figs. 61 & 61) in the Oxford Archaeological Action Plan: http://www.oxford.gov.uk/PageRender/decP/OxfordArchaeologicalPlan.htm

7.2

7.3 Survey of deposited finds

7.3.1 Another way of looking at the changing pace of development and associated developer-led archaeology is to quantify the numbers of finds being accessioned and curated from each five-year period. This is illustrated in Figure 7.4:

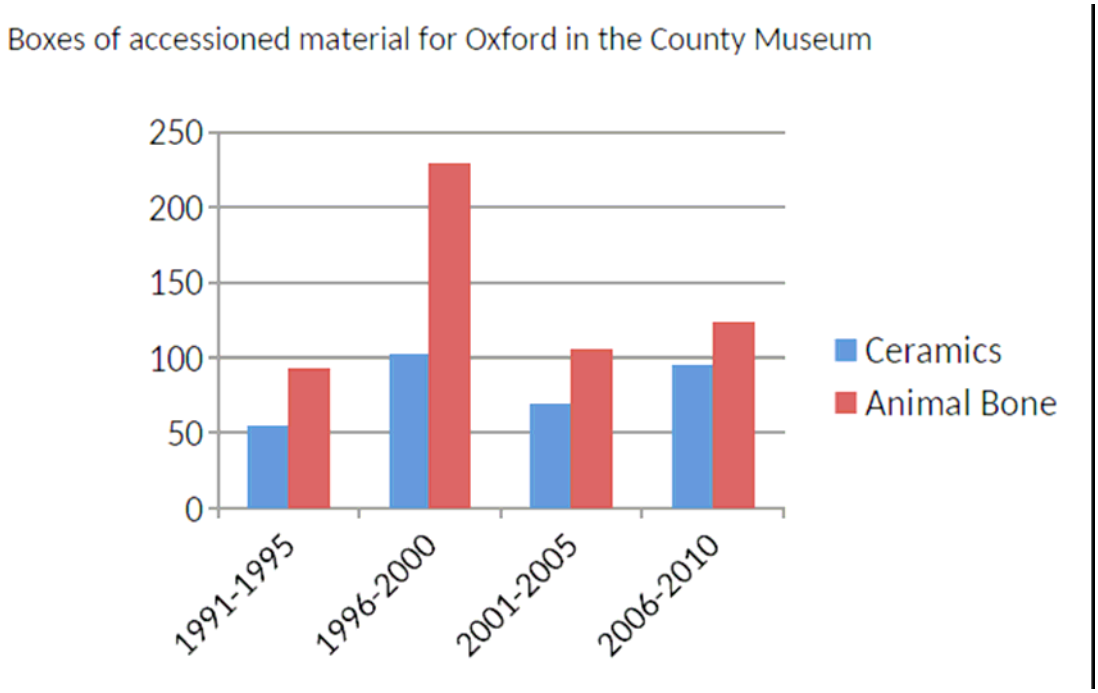

Figure 7.4 Amounts of ceramics and bone deposited at Oxfordshire Museum store by quinquennium

7.3.2 The statistics are based on a rapid assessment of Modes records, lumping together records for boxes either entirely comprised or dominated by ceramics (pottery, tile, and clay pipe) and animal bone. The graph shows a spike between 1996-2000 which is likely to represent the volumes of Roman material excavated from the housing development zones at Blackbird Leys and other unusually voluminous central sites. There does appear to be an underlying pattern of slowly increasing volumes of both finds types.

7.4 Conclusion

7.4.1 From the starting point of many decades of excavation and discovery in Oxford that had already provided a baseline of understanding, the last fifteen years has seen no let-up in the pace of development in the town, university and colleges. While this has led to further and unexpected additions to the developing archaeology and history of the city, and material of real general interest and importance, it does also have implications for the long-term sustainability of the archaeological resource, and raises questions of how the continuing pressure on the archaeological resource can best be managed.

8 RETROSPECTIVE REVIEW OF IMPORTANCE (TASK 2)

8.1 Introduction [Task 2]

8.1.1 This section is divided into three. First the key archaeological sites excavated at Oxford for each pre-historic and historic period are cited and a rapid overview of significance is provided [§**8.2**]. Given the complexity of these sites a detailed dissection of specialists, thematic, academic interest of each is beyond the scope of this study.

8.1.2 Parts two and three consider a number of sites that have been excavated in Oxford over the last decade and retrospectively assesses them for significance with the hind-site of post-excavation evidence. It should be said that many of these sites have yet to be either fully published or synthesised into larger national reviews and so to some extent their impact and ultimate status are still to be determined. Two approaches are provided, sometimes producing different assessments. Firstly a ***desk based review*** approach has been undertaken by Oxford Archaeology for a selection of sites. Finally these and other sites are presented as a series of short ***planning case studies*** by the planning archaeologist.

8.1.3 The 'desk based review' approach is provided for the following excavated sites:

- Kendrew Quad, St John's College [§8.3]
- Lincoln College [§8.4]
- Merton College 4A Merton Street [§8.5]
- Radcliffe Infirmary Burial Ground [§8.6]
- Radcliffe Observatory Quarter [§8.7]

8.1.4 The 'planning case study review' approach is provided for the following sites:

- Kendrew Quad, St John's College [§8.8]
- Lincoln College Garden Room [§8.9]
- Littlemore Nunnery [§8.10]
- The medieval cemetery of St John's Hospital, Magdalen College [§8.11]
- Medieval and later street frontage remains- Magdalen College [§8.12]
- Radcliffe Observatory Quarter [§8.13]
- Radcliffe Infirmary Burial Ground [§8.14]
- Queen Street/St Aldates tenements [§8.15]

8.1.5 Finally [§8.16] the views of professional archaeologists have been sought on the significance of the evidence for their own area or period.

8.2 Review of Key Sites by Period

8.2.1 Palaeolithic-Mesolithic

- The interglacial Wolvercote Channel Deposit (probably MIS 9) has produced what appears to be an in situ, or little disturbed, tool manufacturing site. This is currently the oldest and most significant Lower Palaeolithic assemblage known from the district.
- Most Lower Palaeolithic material from the district consists of stray finds of rolled artefacts from the Summertown-Radley Gravel Formation (mainly MIS 7-6). The only major assemblage of material comes from the Cornish's Pit site in Iffley.
- No British Mousterian material has yet been found in the district, and the reported possible Levallois flake from Davenant Road is probably of Lower Palaeolithic age (Wymer 1968).
- Until recently no Upper Palaeolithic artefacts were known from the district, but a few objects of this age were identified in museum collections during work for the Oxfordshire Solent-Thames Research Assessment, and illustrate the potential for material of this age being found in the future (Hey and Roberts 2008).
- The Mesolithic is poorly represented in the district at present, although this is likely to be due to lack of recording rather than an absence of human activity of this age. There are some stray finds from along the alluvial floodplain around the city and two larger assemblages, from Iffley Fields on the gravel/mudstone interface and Littlemore Hospital on the Corallian Ridge.
- There are also small assemblages from higher ground around the city at Boars Hill and Shotover (local/regional interest).

8.2.2 Key palaeo-environmental sites:

- Radcliffe Infirmary geo-archaeological investigation (Ruddy 2009)
- Minchery Farm palaeo-environmental analysis (Parker 1996)
- Sidlings Copse palaeo-environmental analysis (Day 1991).

8.2.3 Assessment of Significance for Palaeolithic-Mesolithic

8.2.4 These interventions can be assessed as having produced information of local and regional interest, with the exception of the Wolvercote Channel deposit which can be assessed as nationally significant.

8.2.5 Neolithic

- A Middle Neolithic enclosure was recorded at the Radcliffe Infirmary site excavation (see case study below).
- A large ditch and possible 'structured pit deposit' at the New Chemistry Laboratory site, South Parks Road was associated with Peterborough type ware.
- A poorly-recorded but large concentration of Neolithic flints (476 objects) was recovered between 1897-1910 by A.J.M. Bell (1845-1920) from the Iffley area.

8.2.6 Late Neolithic/Early Bronze Age:

- Part of a large henge has been excavated at Queen Elizabeth House (The Kendrew Quad), St John's, St Giles (excavation). (See case study below).
- A Neolithic pit circle was discovered on Donnington Bridge Recreation ground and investigated by Archeox in 2013.

8.2.7 Barrows and ring ditches have been recorded at:

- Port Meadow (primarily from aerial photographic analysis and some antiquarian excavations).
- University Parks and Science Area (including several excavations and aerial photographic analysis).
- Logic Lane (excavation).
- Sackler Library, Beaumont Street (excavation).
- 24 St Michael's Street (excavation).
- The Radcliffe Infirmary, Woodstock Road (excavation).

8.2.8 Possible Bronze Age occupation sites have also been excavated within the LAA

- Early Bronze Age- The Hamel (excavation; Palmer 1980).
- Middle Bronze Age- Blackbird Leys (excavation; Booth and Edgeley-Long 2003).
- Late Bronze Age-Early Iron Age- Garsington Road (excavation; Keevill, and Parsons 1995).

8.2.9 Assessment of Significance for Neolithic

8.2.10 Several of these sites can be assessed as potentially nationally significant and three are addressed as case studies below (St John's henge, Radcliffe Infirmary Middle Neolithic Enclosure and later barrows, and the University Parks Landscape). The overall value of the landscape is assessed in 'Prehistoric Oxford' section [§5.3]. Clearly within an Upper Thames funerary and mortuary landscape of this type there remains potential for rare or previously unrecorded monument arrangements and types to be present that may be of high value. In general the monuments previously excavated within this complex have not been rich in artefacts and ecofacts, perhaps reflecting something meaningful about the on going maintenance of these structures or perhaps a function of recording techniques. That said distinctive and important individual sites have been identified at the Hamel and in the Science Area (Rex Richards flat grave with possible evidence for interpersonal violence).

8.2.11 Iron Age

8.2.12 Middle Iron Age unenclosed roundhouse/ring gully sites:

- Whitehouse Road: mixed farming, penannular sub-circular enclosure (excavation; Mudd 1993).
- Blackbird Leys Zone A: penannular enclosure early-middle Iron Age (excavation; Booth and Edgeley-Long 2003).
- Port Meadow- extant roundhouse earthwork (Lambrick and McDonald 1985) (SAM).
- Banjo enclosure near Littlemore hospital (TVAS 2013).

8.2.13 Middle Iron Age enclosed settlement on higher ground:

- King of Prussia, Rose Hill (evaluation and watching brief; Gilbert 2008; 2011).
- Bernwood First School, Barton (early-middle Iron Age) linear storage pit alignment (excavation; Gilbert 2005).

8.2.14 Possible enclosure and Iron Age pit burial tradition:

- Bernwood First School, Barton (excavation; Gilbert 2005).

8.2.15 Late Iron Age or Early Roman transition sites:

- Middle Way, Summertown (excavation; Williams 2007).
- Eastfield House, Brasenose Driftway (excavation; Challis 2005).
- Halifax House (excavation; Anthony 2005).

8.2.16 Unexcavated sites:

- Possible unenclosed settlement at Binsey identified from aerial photographic evidence (Rhodes 1949).
- Extensive rural settlement and field boundaries identified as parch marks at University Parks (Hassall 1986).

8.2.17 Assessment of Significance for Iron Age

8.2.18 Broadly speaking the IA sites of the town can be assessed as of local to regional interest with the exception of the Port Meadow roundhouses and landscape (these are already scheduled) and possibly the Binsey enclosure (which would require further investigation to provide a more accurate assessment).

8.2.19 Roman

8.2.20 Late Iron Age-Early Roman transition site:

- Bernwood First School, Barton (excavation).

8.2.21 Development of the pottery industry:

- 1st- century coarse ware production – Churchill Hospital (excavation – interim reports only, but see also Young 1977).
- 2nd-century expansion of industry from introduction of white ware mortarium production at Blackbird Leys, Littlemore, St Luke's Road, Cowley, and possibly Rose Hill (published and unpublished reports and recorded observations).
- Evidence for expanding or shifting production – St Luke's Road, Cowley (excavation).
- 3rd-century expansion – Churchill Hospital site (excavation – interim reports).
- Evidence for workshops – Churchill site excavation – interim reports).
- Evidence for wood supply – Blackbird Leys (excavation).
- 1st–4th century 'village' or grouping of rural farmsteads - South Parks Road Zone (New Chemistry Laboratory, Mansfield College, Radcliffe Science Library sites – excavations).

8.2.22 Variations in mixture of agriculture/horticultural patterns:

- Emmer and peas noted at Mansfield College site (excavation).

8.2.23 Assessment of Significance for Roman Period

8.2.24 The rural settlement landscape of Oxford can be assessed as of local and regional interest and the pottery manufacturing landscape can be assessed as of national significance. The Churchill Hospital site (largely excavated but with at least one in situ kiln) is an important exemplar site within this landscape. St Luke's Road and Blackbird Leys have also produced important data. See also 'Roman Oxford' assessment section §5.4.

8.2.25 Early-middle Saxon

- Radcliffe Infirmary site- rural settlement (excavation)
- Oxford Science Park- rural settlement (excavation)
- Peers School- rural settlement (excavation)
- Stephen's Road, Headington- furnished burial (watching brief)
- Miscellaneous finds from North Oxford suggesting burials (stray finds)
- Thames crossing, St Aldates (excavations)
- Binsey enclosure – sub-Roman enclosure? (trial trenching).

8.2.26 Assessment of Significance for Early-middle Saxon

8.2.27 The early Saxon rural settlement remains within the Oxford Local Authority Area can be assessed as of local and regional interest, noting the potential for exceptional individual sites or elements such as the possible headscarf broach identified from a burial at Stephens Road, Headington and the interest of re-used Roman pottery at Oxford Science Park, Littlemore.

8.2.28 Late Saxon

- Church Street – pre *burh* features and street grid (excavation)
- Thames crossing, St Aldates (excavations)
- Cornmarket Street – urban settlement (excavation)
- Lincoln and Queens College – urban settlement (excavations)
- Castle precinct – Saxon rampart and wall (consolidated structure and excavation)
- All Saints Church- urban settlement and late Saxon church (excavation)
- 4A Merton Street- assemblage of late Saxon pottery and occupation in south-east quadrant (excavation)
- Logic Lane – sizeable assemblage of St Neots ware
- 24a St Michael's Street and New College- *burh* ditch and rampart (excavation)
- St Michael at the Northgate –burh ditch and standing designated structure (excavation and building recording)
- St George's Tower (standing designated structure)
- St Martin's Tower, Carfax (Listing notes possible Saxon fabric in the 14th-century tower).

8.2.29 Assessment of Significance for Late Saxon Period

8.2.30 A number of exceptional sites can be identified, but it is their contributions to a wider body of data both at a city and national level that inform their status. See 'Anglo-Saxon Oxford' assessment in §5.5.

8.2.31 Oxford is of interest as a likely early focus for urbanism, being a likely Middle Saxon trading centre/river crossing/Minster and subsequently one of a system of 33 defended *burh*s mentioned in the 'Burghal Hidage' in the 10th century. It is of particular interest because of its boundary position between two fluctuating polities of Mercia and Wessex. Key questions about the development of the town remain to be answered, including the character and extent of the early settlement, the sequence and form of the *burh*'s development (proto and extended or double *burh*) and the character of early settlement including the extent, function and evolution of cellar pit type buildings, the pace and character of plot development 9th-11th century and the potential for cultural and specialist zones of activity (Scandinavian, grain storage, commercial and others) that might be suggested by variations in contemporary pottery assemblages and finds.

8.2.32 Oxford's late Saxon importance as a mint is also reflected by its eight recorded moneyers, thus ranking numerically only after London and with Winchester in the southern part of England (Blunt 1989). The 10th century numismatic evidence records only four non former Roman towns as '*urbs*' (town), Darent, Lewes, Oxford and Southampton. Blair notes that assessments of late 10th century mint outputs provides an insight into Oxford's relative position in the hierarchy of towns at this time, this would put Oxford in the third rank, below London, York, Lincoln, Winchester, Stamford, Chester, Thetford and Exeter and on a level with shire towns such as Canterbury, Norwich, Shrewsbury, Wallingford and Bedford (Blair 1994, 158). Oxford was among the 18th largest towns in the country at the time of the Domesday Survey (Dyer 2000, 752-3).

8.2.33 With regard to the town's Late Saxon urban deposits the regional research agenda notes that 'The region has a good preservation of late Saxon remains in numerous urban centres which represent a nationally important resource for the continuing study of the origins and development of towns into the medieval period' (Dodd and Crawford 2014, 230).

8.2.34 Norman

8.2.35 Notable standing structures in the Oxford Local Authority Area:

- Oxford Castle Motte (SAM 21701).
- The Grandpont Causeway (SAM 21757) and Old Abingdon Road Causeway (Preston 2009).
- St Frideswide's Priory Church (Christ Church Cathedral) - designated structure (Halsey 1988).
- Iffley Church - exemplar Romanesque church - designated structure (a number of other churches retain notable Norman fabric).
- 12th-century vaulted cellars at St George's Tower – designated structure (Durham 1982), Frewin Hall (Blair 1978), St Peter in the East (Sturdy 1972).
- Merton College Stables - late 12th- or early 13th-century stone building - designated structure (Poore *et al*. 2006).
- Possible 11th-century walled enclosure around St Michael at the North Gate (visible in St Michael at the North Gate Fair Trade shop and in the cellar in No. 2 Ship Street) (part of nationally significant asset).

8.2.36 Notable Norman sites in the Oxford Local Authority Area:

- The Castle Precinct, including St George's Tower and crypt, moat including leatherworking debris (excavation, documentary, pictorial evidence).
- Extension of the town wall around St Michael at the Northgate (excavation)
- Investigations along the Grandpont Causeway including the recording of a stone arch (trial trench).
- St Bartholomew's Hospital (documentary evidence, evaluation). (Potential national significance).
- St John the Baptist Hospital (documentary evidence, excavation). (Potential national significance).
- The Kings Houses, later Royal Beaumont Palace (documentary evidence, excavation, pictorial evidence). (Poore & Wilkinson 2001).
- Littlemore Priory (documentary evidence, evaluation). (See case study)
- Osney Abbey (excavation, evaluation, pictorial evidence). (Limited area SAM- nationally significant remains likely to extend beyond the SAM)

- Godstow Abbey (documentary evidence, excavation, watching brief, pictorial evidence).
- Cowley Templar's Preceptory, tentative evidence (evaluation and watching brief) (regional significance unless further well preserved remains can be identified).
- Cornmarket Street, former Clarendon Hotel site- evidence for Late Saxon-Early Norman continuity (e.g. use of wells) and possible transitional cellared hall form. Significant Norman pottery assemblage and evidence for leatherworking (excavation).
- 113-119 High Street - example of the continued use of Late Saxon cellar (excavation).
- 4A Merton Street- rear wing of stone house with garderobes (documentary evidence, excavation).

8.2.37 Assessment of Significance for Norman Period

8.2.38 Here a number of exceptional individual sites can be identified, but it is their contributions to a wider body of data both at a city and national level that inform their status. See assessment in §5.6.2; and see later medieval below.

8.2.39 Later Medieval

8.2.40 Notable standing structure surveys:

- Tackley's Inn, 106 High Street (Hurst observations in 1890s)
- 126 High Street (Munby 1975)
- New Inn, 'Zacharias', Cornmarket (Munby 1992)

Notable excavations by theme:-

8.2.41 Hall and college excavations:

- Frewin Hall (Blair 1978)
- Hinksey Hall (Halpin 1983)
- Lincoln College (Kamash *et al*. 2002)
- Merton College, 4A Merton St (Poore *et al*. 2006)
- The Queen's College (Norton and Mumford *et al*. 2010)
- Corpus Christi College (Bashford 2007).

8.2.42 Monastic and hospital sites:

- Blackfriars (Dominican) (Lambrick and Woods 1976; Lambrick 1985)
- Osney Abbey (Sharpe 1985)
- Greyfriars (Franciscan) (Hassall *et al*.1989)
- Rewley Abbey (Munby *et al*. 2002)
- Infirmary and Hall of St John the Baptist (Durham 1991)
- St John's Hospital cemetery (Magdalen College) (OA 2012-13).

8.2.43 Church and churchyard investigations:

- St Peter in the East church (Sturdy 1972)
- All Saints church (Durham 2003)
- St Peter le Bailey church (Webb and Norton 2009).

8.2.44 Medieval Town houses:

- New Bodleian site on Broad Street (Bruce-Mitford 1939; Pantin 1962-63)

8.2.45 The Castle:

- The Castle motte (Jope 1952-53)
- The Castle moat and barbican ditch (Hassall 1976)
- The Castle precinct (Poore *et al*. 2009).

8.2.46 Town Wall:

- The Clarendon Quadrangle 1899 (Munby 2003)
- The Clarendon Quadrangle (Daniell 1939)
- New College (Hunter and Jope 1951; Durham *et al*. 1983; Booth 1995)
- St Michael at the Northgate Church (Durham 2003a).

8.2.47 High street plot development:

- Nos 113-119 High Street (Walker and King 2001).

8.2.48 Recent investigations of medieval plots:

- Magdalen College, Longwall Quad and New Library (ongoing)
- Lincoln College Music Room (OA 2012)
- Clarendon Centre (PCT 2012).

8.2.49 The Jewish Quarter:

- Ebor House, Blue Boar Street (Hiller and Wilkinson 1997)
- Christ Church IT trench (Chadwick, Gilbert and Moore 2012).

8.2.50 Western suburb:

- Nos 67-69 St Thomas's Street (Hardy 1996)
- Nos 54-55 St Thomas's Street (Norton 2006).

8.2.51 Northern suburb:

- The Classics Centre, St Giles (Norton and Cockin 2008)
- The Ashmolean extension (Andrews and Mepham 1997; Oxford Archaeology forthcoming)
- St John's Kendrew Quad (Wallis 2010).

8.2.52 North east suburb:

- Jowett Walk (Roberts 1995).

8.2.53 Southern suburb:

- Thames crossing sites (Durham 1984; Robinson and Wilkinson 2003)
- Brewer Street (OA 2012).

8.2.54 Villages:

- Seacourt (Berkshire) – pioneering excavation on deserted medieval village (Biddle 1961-62)

8.2.55 Assessment of Significance for Later Medieval Period

8.2.56 Here a number of exceptional individual sites can be identified, but it is their contributions to a wider body of data both at a city and national level that inform their status. See assessment in §5.6.2.

8.2.57 The economic significance of medieval Oxford at a national level before its 14th century decline is well established in documentary sources. By 1066 it was '*one of*

the largest towns in England, exceeded in size only by London, York, Norwich, Lincoln, and Winchester' (VCH Oxon IV 1979). The town's rising prosperity in the later 12th and early 13th centuries, reflected in tallage contributions: in 1176-7 it paid the same as Exeter, Gloucester, Norwich, Bedford, Dover, and Canterbury, but less than London, Northampton, York, or Lincoln, Winchester, and Dunwich. In 1227 Oxford paid the same amount as York, and more than any other town except London. In 1334 Oxford ranked 8th among English provincial towns on the basis of taxable wealth.

8.2.58 Whilst Oxford declined in terms of its economic importance in the national urban hierarchy in the later 14th century it became of European significance as a centre of learning. This status attracted specialist material culture and building forms associated with academia that are spread throughout the historic town, the potential for exceptional material culture to be present in mundane locations is exemplified by the recovery of 14th-century ceramic and glass alembic assemblages, perhaps associated with alchemical experimentation, in a side street garderobe.

8.2.59 Oxford's archaeological importance is enhanced by the extent and quality of previous archaeological investigation providing a significant corpus of reference and comparative data and building recording and by the exceptional level of documentary evidence and good provision of historic map evidence.

8.2.60 Broadly speaking, Oxford has exceptional archaeology relating to the development of learning and scientific discovery which is closely tied to the production of a state elite. It also has excellent potential for producing nationally relevant data relating to urban and cloth related craft and industrial production, for service sector crafts and trades driven by high status ecclesiastical/Royal/University related patronage, for the archaeology of friaries and other ecclesiastical institutions, for the development of urban defences to name but a few areas of interest. Previous sites have produced information that have already fed into national data sets, however this process is clearly incomplete and prevents a more detailed and complete appraisal.

8.2.61 Post-medieval (to 1800)

8.2.62 Notable post-medieval buildings and structures (excluding colleges buildings):

- Parts of the inner defensive bank of the royalist defensive line 1644-46 survive north east of the town (see case study below).

8.2.63 Designated structures:

- Carfax Conduit survives at Nuneham Courtenay
- Several notable post-medieval Parks and Gardens include the Grade 1 17th-century Botanic Garden
- 18th-century cobbles survive in Merton Street
- 17th-century Iffley Lock
- Historic inns in Cornmarket and High Street
- Groups of town houses in High Street and Pembroke Street
- Groups of suburban houses in Holywell, St Michael's Street, Ship Street, Broad Street and St Giles
- 18th-century buildings of Oxford prison
- All Saints Church
- The Old Bodleian
- The Radcliffe Infirmary
- The Radcliffe Observatory

- The 17th-century Danby Arch, Botanic Garden
- The University Convocation House
- The Bodleian Library and the Schools Quadrangle
- The Sheldonian Theatre
- The Old Clarendon Building
- The Old Ashmolean Building
- The Radcliffe Camera
- Holywell Music Room
- University Real Tennis Courts.

Notable archaeological investigations for the post-medieval period:-

8.2.64 Material culture:

- Bodleian Library Extension, Clarendon Quadrangle – early recovery of post-medieval pottery assemblage (recorded observation).
- Oxford wine bottle sequence (from tavern records) (museum investigation)
- Recovery and repair of 16th-17th century wall paintings.
- St Ebbe's/Westgate - stratified post-medieval pottery assemblages (excavation).
- 5-7 Market Street - 18th-century domestic pottery assemblage (excavation).

8.2.65 The landscape:

- Paradise Square, Greyfriars (excavation).

8.2.66 Intramural settlement:

- Excavations in St Ebbe's (excavation).
- Post-medieval buildings / alterations to medieval buildings.
- Broad Street (New Bodleian) houses (16th-19th cent) (building recording).
- The Clarendon/Star Inn, Cornmarket (16th -century Inn) (building recording).
- Golden Cross, Cornmarket (building recording).
- Tackleys Inn, High Street (building recording).
- 126 High Street (building recording).

8.2.67 Extramural settlement:

- St Giles – Ashmolean Museum, Classics Centre, Black Hall Farm (excavations).
- St Thomas' parish (multiple excavations).
- St Aldates (excavations and building recording).
- Suburban housing in St Aldates, Beef Lane, Pembroke Street and St Thomas (building recording).
- Knucklebone Floors (excavations and building recording).

8.2.68 Post-Dissolution Monastic Precincts:

- Greyfriars (evaluation and excavation).
- Rewley Abbey (evaluation and excavation).
- Littlemore Nunnery (evaluations).

8.2.69 The Civil War defences:

- Inner Northern Line, American Institute, Mansfield College (excavation)
- Outer Northern Line, New Chemistry Laboratory, Mansfield College (excavation).
- Western Line- Botley Road-Hythe Bridge Street (watching brief).
- Re-cut town ditch, Long Wall Street (excavation).

8.2.70 The Castle Precinct:

- Shire Hall, Town Gaol (excavation).
- 18th-century prison and burial ground (excavations).

8.2.71 University:

- Science equipment, Old Ashmolean Museum Broad Street (trial trenching).

8.2.72 Colleges:

- 17th-century kitchen block at St John's College (excavation).
- Material from the construction of the 18th- century north quadrangle at Queens College (trial trench).
- Real Tennis Courts at Oriel (excavation).
- 17th-century food waste from Oriel College (excavation).

8.2.73 Burial grounds and cemeteries:

- Wellington Square Workhouse burials (excavation).
- Radcliffe Infirmary burial ground (evaluation).
- St Clements Church graveyard (watching brief).
- St Peter at the Bailey churchyard (excavation).
- Castle Prison burial ground (excavation).

8.2.74 River Thames:

- Binsey Boat – working boat or punt (excavation).

8.2.75 Assessment of Significance for Post-Medieval Period

8.2.76 The post-medieval town was less economically significant in national terms than in the earlier medieval period, but it remains exceptional for its relationship with the University. Assessing the significance of assemblages is challenging; broadly speaking assets are likely to be of local and regional interest with notable exceptions, including the Civil War remains, as during this time Oxford's status was elevated by its role as temporary capital to Charles I.

8.2.77 Material culture relating to the development of science and learning (notably anatomy and alchemy/chemistry) and to issues of public health can be identified as of particular importance because of the role of the University and the development of teaching hospitals.

8.2.78 Modern (from 1800)

8.2.79 Designated modern structures:

Heritage List search (using Heritage List categories)

- 1191 Total number Listed structures in Oxford Local Authority area.
- 306 Hanoverian structures (1714-1837).
- 282 Victorian structures.
- 293 20th-century structures.

8.2.80 Registered Parks and Gardens *c.*1800-1950 (excluding earlier parks with modern elements):

- High Wall, Headington *c.*1912 (Grade II).
- Park Town, mid 19th-century pleasure grounds of suburban development (Grade II).

- St Catherine's College, mid-20th century contemporary gardens (Grade II).
- St Sepulchre's Cemetery, mid-19th century cemetery (Grade II).
- University Parks, mid-1960s suburban park (Grade II)..

8.2.81 Scheduled Ancient Monuments:

- The LMS Railway swing bridge across the Sheepwash Channel is a Scheduled Ancient Monument (County SAM No. 175).

8.2.82 Notable fieldwork undertaken on modern era structures and sites:

- Radcliffe Infirmary- outbuildings and assemblage of specialist pottery (excavation).
- Early 19th-century pottery assemblages from domestic rubbish pits in St Ebbe's (excavation).
- St Aldates Church graveyard- mid-8th-19th century inhumations (watching brief).
- The Binsey Boat- large late post-medieval or early modern punt or barge (excavation).
- Baker and Co 1881 warehouse, Ship Street (building recording).
- 316 Woodstock Road, 1887 domestic house (building recording).
- Former Nuffield Press (part of the early Morris Car Plant) (building and photographic survey).
- Land of NWR subsequently LMS 1851 railway station (building recording).
- LMS railway swing bridge (Conservation Plan).
- WWII air raid shelters, Milham Ford Upper School and St Christopher's First School (building surveys).
- Methodist Chapel cemetery – Littlemore (OA).
- Radcliffe Infirmary burial ground (OA).

8.2.83 Assessment of Significance for Modern Period

8.2.84 Our understanding of the archaeology of this period is relatively poor, although important ground-breaking work was done at the 1960-70s St Ebbe's excavations including the first investigation of 19th-century waste pit deposits. Too date it is the burial assemblages that stand out for their potential interest (See also Radcliffe Infirmary burial ground case study below).

DESK-BASED REVIEW STUDIES

8.3 Kendrew Quad, St John's College, formerly Queen Elizabeth House

Summary Description

8.3.1 St John's College is located on the east side of St Giles. Part of its land on the north side of the College was used as the International Development Centre of the University of Oxford, Queen Elizabeth House. In 2005 the Centre was relocated and work began to redevelop the site to provide an additional quadrangle, Kendrew Quad, for St John's.

8.3.2 The 20th-century buildings were replaced, but the St Giles frontage contains Black Hall, 17th-century in date, an 18th-century agricultural building and No. 20 St Giles, which probably dates from the 19th century. All these buildings are Listed Grade II and have been incorporated into the design.

Description of Evidence

8.3.3 An excavation at St John's College in St Giles in 2008 for the new Kendrew Quadrangle produced substantial new evidence of Late Neolithic-Early Bronze Age activity on the Oxford 2nd gravel terrace (Wallis 2010, 7). An earlier evaluation on the site recorded only medieval and post-medieval evidence (UAD 1691). Subsequent excavation encountered a substantial curving ditch some 7m wide and 2.5-2.9m deep. The curvature of the ditch suggests a feature some 150m in diameter. No trace of an external bank was noted. Radiocarbon dating of a cow tibia and a charcoal spread located close to the base of the ditch indicates that the monument dates from around 2290-2130 BC. Unfortunately it was not possible to recover a scientific date from the antlers recovered from the base of the ditch and as it was not possible to date the very deepest deposits it remains possible that the henge dates from the middle of the 3rd millennium, by comparison with parallels with the concentration of 'large' henges in the Upper Thames and along the Windrush Valley, rather than to c.2200 BC or later. The presence of a late Saxon mass grave in the ditch demonstrates that the monument continued to be a significant feature in the landscape into the Late Saxon period (ibid., 9). The feature is interpreted as a Neolithic henge that may have been the focus of the later Bronze Age barrow cemetery.

8.3.4 The primary floor of the ditch contained a significant quantity of antler and bone fragments. Above this fill Late Neolithic pottery was recorded, while lying above this was a horizon containing 142 sherds of Beaker pottery and a hearth with a radiocarbon date of 2136-1948 BC. The next horizon contained no datable pottery evidence and may have formed between the Early Bronze Age and the middle Iron Age. The next horizon contained early to middle Iron Age pottery with some residual Late Neolithic sherds. A 1st-century hearth was recorded in the upper fill of this horizon. The upper horizon of the ditch contained limited evidence dating to the Roman period. Subsequently there appears to have then been little activity on the site until the 10th century, when bodies were dumped in the still-visible ditch (Wallis 2010). Optically-Stimulated Luminescence Dating of sediments from the ditch has been undertaken but the results are not yet available.

8.3.5 To date there is no firm evidence for pre-conquest settlement outside the Northgate, but the upper fill of the Neolithic ditch produced unprecedented evidence for Late Saxon in the form of a mass grave of over 34 well-built males and two juvenile bodies (Wallis 2010, 31). These had been stripped of clothing save a single buckle, and had wounds indicating that they suffered from violent deaths, apparently from

one episode. The circumstances of the inhumations, e.g. disorganised deposition with no consistent positioning of the remains, coupled with the improvised use of a Neolithic henge ditch, suggests a single event mass burial, although the radiocarbon dates produced for sampled burials have provided an unexpectedly wide spread of dates from AD 710-1013. The demographic profile of the individuals and skeletal evidence for violent deaths caused by weapons suggest either a massacre of male residents of fighting age or a war band whose battle line had been broken (Falys in Wallis 2010, 35). Isotope analysis of the bones has suggested that the men may have consumed more fish than the local norm and may therefore by Scandinavian in origin, although one individual may have been from the Mediterranean area (Wallis 2010; Pollard *et al.* 2012). The location of the grave in an extant prehistoric monument is significant, as if the remains were inhabitants of the town it might be expected that they would have been interred within the *burh* in consecrated ground. It is possible that they are victims of the documented St Brice's Day massacre.

8.3.6 The site produced evidence for late 11th-century activity comprising domestic rubbish pits. Some of these pits may have been primarily excavated to provide gravel, before being used as rubbish pits. Several gullies were also recorded. Two of these were aligned approximately east-west, at right angles to the roads, and could represent early property boundaries. A stone-lined well was the most obvious indicator of domestic activity on the site at this time, although its dating was based on just a few sherds of 11th-century pottery from the backfill of its construction cut (Wallis 2010). The Kendrew Quad excavation demonstrates the presence of late 11th settlement activity close to the junctions of the Banbury and Woodstock Road. Whether this was largely rural in character or represented intermittent suburban expansion along St Giles remains unclear. The excavated evidence suggested that activity declined in this area during the 12th century, reviving in the 13th (Wallis 2010, 103). Similar evidence had been seen in the 2006 evaluation (OA 2007).

8.3.7 A hiatus in activity in this area in the late medieval period ended in the mid-16th century when a stone building was built and associated rubbish pits excavated. Two later 17th-century structures appear to correspond with structures shown on a map of 1673. The larger of the two buildings may have been a barn, and the smaller building contained numerous floor layers. This structure also contained a sequence of hearths, probably dating from the 17th and 18th centuries, which suggests that this building may have been a kitchen or bakehouse for Black Hall. The building was demolished at some point in the 18th century. Elsewhere various pits in the south-west corner of the site suggest domestic use by the occupants of Black Hall and the adjacent buildings on St Giles. Most features here appear to have been simple rubbish pits, although a stone-lined cess pit, dating from the 17th century, was also recorded against the western edge of the excavation area. The excavated evidence demonstrated that the farm continued well into the 18th century and perhaps later, and was only relocated once the town had begun to expand significantly (Wallis 2010). The 2006 evaluation had found evidence for quarrying and of 19th-century garden soils (OA 2007).

Planning History

Only a limited amount of archaeological work had taken place on the site (UAD 562 and 1778).

Significance

8.3.8 The discovery of a previously unsuspected Late Neolithic henge monument within Oxford is of major significance. In appears to be another example of a 'large' henge, of which concentrations have been identified in the Upper Thames and Windrush valleys. These features are usually of mid 3rd millennium BC date.

8.3.9 A mass grave in the henge ditch, contained the remains of 34 individuals from the Late Saxon period. These were male and showed signs of violence. Scientific evidence suggests that some individuals at least might have been from Scandinavia. This, combined with the trauma recorded, suggests that the grave may be associated with the St Brice's Day massacre which took place on 13 November 1002, when Æthelred ('the Unready') ordered the killing of Danes in the Kingdom of England. Archaeological evidence for a 'national' undertaking is rare (Pollard et al 2012).

8.3.10 The concurrence of two such unusual and unconnected finds on one site is quite remarkable, when each on its own would be of national importance.

Summary of Significance

8.3.11 Both these finds are of undoubted national significance, and both are well defined (the approximate shape of the henge can be anticipated), though it is unclear whether more burials may remain elsewhere in the henge ditch.

8.4 Lincoln College

Summary Description

8.4.1 Lincoln College is a mid-15th century foundation. The main college precinct comprises the original Quadrangle on Turl Street and a later extensions south towards the High Street. The former All Saints Church is now in use as a library for the college.

Description of Evidence

8.4.2 One of the largest assemblages of Late Saxon pottery from Oxford recovered to date comes from investigations at Lincoln College between 1997-2000. The late Saxon and Saxo-Norman assemblage was domestic in character and included pots displaying scorching, soot marks, and charred and lime-scaled interiors indicative of repeated use for cooking (Blinkhorn 2002).

8.4.3 These excavations also recovered a silver coin dated to 972/3-975 from a pit, identified as an Edgar Reform Small Cross minted at Tamworth and the moneyer is Deowulf (Allen 2002).

8.4.4 Late Saxon animal bone assemblages reflect the predominance of either cattle or sheep followed by pig. Sheep are generally dominant across the town, reflecting regional urban patterns, for example sites at Church Street, Lincoln College, Oxford Castle, Christ Church and Queens College have produced assemblages dominated by sheep/goat remains (Maltby 2000; Evans 2006; Charles 2001; 2002; Strid 2010).

8.4.5 Excavations between 1997 and 2000 (Kamash *et al*. 2002, 199) revealed Late Saxon occupation activity on the site that was sealed by a fire sometime in the late 11th-early 12th century, destroying the buildings present on the site. From the 12th century the land became waste, with evidence of gravel extraction and domestic waste pits spread fairly uniformly across the excavated area (ibid., 209). The site remained waste until the 15th century and the establishment of the college. The site was then gradually redeveloped. The foundation of the earliest college buildings and evidence for a series of hearths were recorded within the kitchen, while ancillary structures were also recorded nearby (ibid., 216).

8.4.6 Lincoln College was founded in 1427 by Richard Fleming, Bishop of Lincoln. The foundation charter allowed Lincoln to combine the parishes of All Saints, St Mildred

and St Michael at the North Gate into one collegiate church. Lincoln was to consist of a warden, seven scholars and two hired chaplains (VCH Oxon III, 163).

8.4.7 The college fronts primarily onto Turl Street and comprises two quadrangles, one entirely 15th-century (with a contemporary kitchen extension to the rear on Brasenose lane), and the second (including the Chapel) of the 17th century; other 19th-century buildings lie behind, and the former All Saints Church, rebuilt in the 18th century, is now used as the Library.

8.4.8 The medieval kitchen at Lincoln College is a very important survival of a detached medieval kitchen and one of the few still in use. It was surveyed in 1980. The internal arrangements of the kitchen had been somewhat altered as several of the fireplaces had been blocked up (Steane and Taylor 1983, 76). The foundations of the Great Hall, kitchen and buttery were examined during excavations between 1997 and 2000 and a 17th-century cellar of reused limestone blocks with a brick barrel-vaulted roof was recorded (Kamash *et al*. 2002, 199, 227).

8.4.9 There have been a number of excavations examining college kitchens at Lincoln College (Steane 1987), Queen's College (Norton and Mumford 2010), Merton College, Hinksey Hall (Halpin 1983), Magdalen College (Durham 1992), and most recently New College (OA forthcoming). These and other sites have provided further information on college diets, with Lincoln representing a lower status college assemblage.

8.4.10 Sites examined in the last decade have produced a number of small fish assemblages, dominated by eel and herring, for example at Oxford Castle, Queens College and Lincoln College (Norton 2006; Ingrem 2002; Nicholson 2010, 211). Herring were probably imported as pickled fish while the eels are likely to have been fresh and obtained locally (Norton and Mumford 2010). Cockle and oyster shells are present in a number of late Saxon assemblages, e.g. at Lincoln College (Campbell 2002, 260-1). Similar access to fish has been noted in 15th-16th-century fish bone assemblages from Merton College, Lincoln College and Hinksey Hall (Nicholson and Strid 2010, 184).

8.4.11 The animal bone assemblage from Lincoln College kitchen produced only small numbers of deer bones and no evidence for high status birds, and was more comparable in character to urban Oxford assemblages than to college assemblages (Nicholson and Strid 2010, 183; Charles 2002, 252-5; Ingrem 2002, 255-60). At Queen's and Merton there was a preference for calves and piglets whereas the Lincoln assemblage was more similar to the domestic assemblage at Church Street where mostly sub-adult and adult cattle were slaughtered (Strid 2010, 207).

8.4.12 The 16th century kitchen waste from Lincoln College contained traces of figs and grapes (Pelling 2002).

8.4.13 The preference for oak and hazel firewood in the early medieval period appears to have changed to beech in the medieval period, with the Chilterns a possible source of supply. At Lincoln College kitchen beech charcoal dominated the 16th-18th century fireplace charcoal deposit (Challinor 2002).

Planning History

A considerable amount of archaeological work (including building surveys) has taken place in Lincoln College, and notably in the church of All Saints (now the college Library).

(UAD 134), (UAD 272), (UAD 402), (UAD 430), (UAD 472), (UAD 632), (UAD 636), (UAD 802), (UAD 803), (UAD 897), (UAD 1463), (UAD 1554).

Significance

8.4.14 At a national level the University of Oxford is an institution only directly comparable with the slightly later University of Cambridge. At a county level, 22 medieval academic and chantry colleges are recorded in the Oxfordshire HER. Lincoln College is one of 18 Oxford colleges established by the end of the 16th century.

8.4.15 The archaeological potential at Lincoln College is high. Two churches are located within the college. The Saxon All Saints church, now converted into a library, has revealed substantial evidence of Saxon domestic and religious activity on the site, while the Norman St Mildred's church is located beneath Front Quad. There is significant potential for the survival of evidence for further Saxon occupation, for tenements located on Turl Street and the former Rotten Row around All Saints Church. The historic core of the college has potential to preserve evidence for the evolution of structures, and for changing patterns of material culture, wealth and diet. Lincoln's medieval kitchen is of particular significance.

8.4.16 The evidence for the late Saxon town and the environmental remains demonstrating past diets provide contributions to themes of national importance.

8.4.17 The archaeology of a well-documented medieval Oxford college, both in terms of the variety of known discoveries and the potential for further work, is a theme of national importance.

Summary of Significance

8.4.18 Aspects of the archaeology of the college touch on areas of undoubted national significance, though with the variety of material and survival, the definition is one of potential rather than known survival.

8.5 Merton College

Summary Description

8.5.1 Merton College is one of the earliest colleges to be established in Oxford. It was one of the first colleges to add purpose-built structures in the late 13th and early 14th century and was instrumental in evolving academic college design. Among the Oxford colleges Merton has the most extensive survival of medieval fabric. The college coalesced around a group of buildings adjacent to the former Church of St John on Merton Street, which eventually was rebuilt as the college chapel. It gradually expanded to incorporate the larger portion of the south side of the street up to the city wall. There are several associated collegiate properties on the north side of Merton Street.

Description of Evidence

8.5.2 Two sherds of decorated early Saxon pottery were recovered at the Postmasters' Hall excavation at 4a Merton Street (Blinkhorn 2006).

8.5.3 These excavations, 140m south of the High Street and east of the postulated primary *burh*, also recorded an occupation site dating to the 11th century, indicated by a large (for the town) assemblage of re-deposited St Neots ware (Poore *et al*. 2006), one of the two largest assemblages from the city, along with that from Logic Lane (Mellor 1994b: 56). The presence of possible Flemish storage jars in the late Saxon pottery assemblage from the Postmasters Hall site in Merton Street, St Ebbe's and

Cornmarket (Blinkhorn 2006; Hassall *et al*. 1989, 201) is of interest as such imports are rare, although well known in the ports of Eastern England, such as Norwich, Ipswich and London. The site also produced the a small assemblage of Thetford Ware, also found in small quantities at Merton College and St Ebbe's and in greater abundance at Oxford Castle (Blinkhorn 2006).

8.5.4 Unsurprisingly no well-preserved examples of Norman halls survive in the City, although the stone built stables at 4A Merton Street may be a rare survival of such a structure, albeit subject to significant alterations. No 4a Merton Street (Merton Stables) is a plain stone building of ragstone, but an 18th-century drawing depicts it with two late Norman or early gothic windows dated to circa 1200. This structure and the undercroft at Frewin Hall are therefore the best preserved domestic structures of this period in the town. An excavation in 2003 in the yard to the rear of the stables revealed the remains of an undercroft, probably part of a hall set at right angles to No 4a, and produced assemblages relating to the domestic use of the hall prior to the acquisition of the site by Merton College in the 1270s. Substantial quantities of animal horns were also associated with this phase, indicating industrial activity in this location from the 12th century onwards (Poore *et al*. 2006, 215).

Merton College was first founded in 1262-4 by Walter de Merton for Merton Priory and was intended to support 20 scholars. In the original statutes the college endowments remained vested with the Priory, but when a new set of statutes was agreed in 1264 the endowments belonged solely to the college (*VCH Oxon III*, 95). The present college site was bought by the founder in 1266 and building began soon after. The current college consists of four quadrangles, the earliest being the 14th-century Mob Quad, while the most recent is the 20th-century addition of St Albans Quad. A 20th-century area of the college is also located just outside the city wall, a section of which the college is required to maintain. The 13th-century college chapel in the medieval period was the most impressive component of the complex and also served as the parish church of St John (Fletcher and Upton 1983, 120). On a site adjacent to the medieval Merton College, St Albans Hall was an academic hall founded in 1230 and belonging to Littlemore Priory. The hall remained a separate structure until 1548 when Merton College was able to purchase the site after the Dissolution.

8.5.6 The Front Quad has a gatehouse of the 15th century on a much rebuilt range with remains of the 13th-century Warden's Lodging, while the Hall in the South Range was built in the 13th century but largely rebuilt in the 18th century and only the west end wall was retained. The eastern side of the South Range is the 16th-century FitzJames Gateway, part of the former Warden's lodgings. To the west of the Front Quad is the late 13th-century chapel formed, with its sacristy, and Mob Quad to the rear of the chapel was formed by the addition of the Library to earlier chamber blocks in the 14th century. The early 17th century Fellows' Quad lies to the south and further college rooms were added in the 19th century to the rear of Mob Quad adjacent to the city wall, and the buildings of Alban Hall to the east. Beyond the wall the college also owns a number of modern subsidiary buildings. The city wall has been investigated at Merton College in 1975 where a section was recorded as at least 1.8m wide (UAD 533).

8.5.7 Archaeological investigations were carried out between 2000 and 2002 to the rear of 4a Merton Street (Poore *et al*. 2006). A well-preserved assemblage of animal bones allowed for the identification of butchery marks on cattle, sheep, goat and pig and demonstrated a preference for calves and piglets. Saxo-Norman animal husbandry, encompassed cattle, horse, sheep, goats, pigs, domestic fowl, ducks, geese, hares and roe deer, and black rats, voles and amphibians were also present in the area. From the 11th century the carcasses were divided into right and left sides, indicating that they

were hung up and processed by professional butchers using specialist equipment (Worley and Evans 2006, 319). The site also produced horn-working and marrow extraction evidence indicative of specialist activity. At 4a Merton Street 11th to early 13th century deposits also contained fish remains with evidence for dace, pike, eel and herring.

8.5.8 Rubbish pits of 13th-century date contained lamps, drinking jugs and glass urinals used to practice uroscopy, the inspection of urine to monitor for illness. Further evidence for an interest in medicine came from environmental samples which produced remains of opium poppy, hops and cannabis. It is unclear, however, whether these remains related to the occupation of the site in the 13th century by the Edrich family, or by the college in the late 13th century. A similar range of plants from a site in St Thomas's Street has been suggested as evidence for a medicinal herb plot or physic garden. Further evidence for the use of medicinal plants in Oxford was recovered from the Blackfriars site (see above) (ibid., 229; Robinson 1985; 1996: 263-7).

8.5.9 A number of finds and features have been observed at Merton College since the 19th century: an early medieval glass wine jug (UAD 1271), an undated foliage wall painting in Staircase 6 (UAD 1352) and several undated burials at St Johns Church (UAD 1558). Hurst records that inhumation burials were found close to the sacristy to the south-east of the chapel. At least one had a stone coffin. The burials seem to relate to the period when the chapel was the parish church of St John the Baptist. A large stone drain beneath the present Merton Grove building was uncovered in 1864 running south to the City Wall (UAD 1568). It is thought that this had given rise to the name of Goter Hall, a medieval academic hall, which had stood to the north.

8.5.10 At 4A Merton Street, a 14th/15th-century book clasp and 13th/14th-century copper page holder or clip were recovered, along with bone styli used as parchment prickers. The metalwork assemblage also included domestic items such as toiletry items, sewing equipment, craftsmens' tools, horse gear and hunting equipment (Allen 2006, 280). Drinking vessels (e.g. beer mugs) are well represented in late medieval and early post-medieval assemblages from Oxford colleges, for example from Merton College, Merton South Lodge and Christ Church College (Blinkhorn 2009). An inscribed Brill/Boarstall jug sherd from a 15th-century context at Merton College preserved an inscription '-rton', presumably 'Merton', implying that potters at the west Buckinghamshire potteries were producing batches to order for the college (Blinkhorn 2006b: 275-8). At least 24 Brill lamps were found at the Postmaster's Hall, Merton College and the presence of so many seems highly likely to be linked to the site's academic function (ibid.). Mellor has previously suggested that some of the more highly decorated Brill wares in Oxford were the subject of special commissions (Mellor 1994b, 121-2).

8.5.11 The assemblage of medieval pottery from 4A Merton Street is distinctive, being a well-preserved domestic/college assemblage including dripping dishes, lamps/candlestick, lids and cups/drinking mugs in a range of fabrics. Here the large quantity of the pottery was unusual for contemporary Oxford sites and provided a good insight into the use of pottery within an Oxford college in the 13th-16th centuries (Blinkhorn 2006, 258). The mid-13th-14th-century pottery corresponded to the transition of the site from domestic to collegiate functions. Sherds from dripping dishes recovered from the college phase are noteworthy because of their use for collecting fat from spit-roasted meat, implying affluent consumption. A locally rare example of a Dutch Redware vessel was also noted (Blinkhorn 2006, 267). A further indication of 13th-14th-century college affluence is provided by fragments of a green high-lead glass decorated beaker from the 4A Merton Street site. This is the first find of its kind in the city and the first example of green high-lead glass found in Britain

(yellow and red vessels are known, imported from Germany and the Low Countries (Tyson 2006)).

8.5.12 Floor tiles of the 'stabbed Wessex' type have been identified from numerous religious institutions and from college sites, and at Merton College such tiles survive, apparently *in situ*, in the 13th-century Muniment Room (Smith 2003, 53).

8.5.13 A notable college assemblage of medieval horse gear was also recovered from 4A Merton Street (Allen 2006).

Planning History

A considerable amount of minor archaeological work and building survey has been undertaken at Merton College, recently and most notably at the Postmaster's Hall site.

(UAD 132), (UAD 195), (UAD 228), (UAD 514), (UAD 533), (UAD 583), (UAD 624), (UAD 634), (UAD 729), (UAD 876), (UAD 931), (UAD 1138), (UAD 1198), (UAD 1271), (UAD 1347), (UAD 1352), (UAD 1382), (UAD 1408), (UAD 1558), (UAD 1568), (UAD 1645), (UAD 1646), (UAD 1686), (UAD 1758).

Significance

8.5.14 At a national level the University of Oxford is an institution only directly comparable to the slightly later University of Cambridge. Merton is one of three 13th-century academic college foundations in Oxford (excluding the monastic Durham and Gloucester Colleges). The land holding dating from this time is therefore of particular interest for understanding the development of the college system.

8.5.15 Merton College comprises an exceptional group of Grade I buildings. It has strong associations with the 13th-century town wall and other properties in Merton Street including No 4a, probably of *c.*1300.

8.5.16 The level of survival of such an early building within No 4a Postmaster's Hall is rare. The excavations have also uncovered a particularly notable assemblage of finds demonstrating material culture and early evidence for the practice of medicine from the city and college across the early medieval and medieval periods.

8.5.17 The archaeology of a well-documented medieval Oxford college, both in terms of the variety of known discoveries and the potential for further work, is of national importance.

Summary of Significance

8.5.18 Aspects of the archaeology of the college touch on areas of undoubted national significance, though with the variety of material and survival, the definition is one of potential rather than known survival. In the case of the former Stables the discoveries were certainly of national importance.

8.6 The Radcliffe Infirmary Burial Ground

Summary Description

8.6.1 The Radcliffe Infirmary, Woodstock Road, opened in 1771. Its burial ground lay behind the main hospital building along the Walton Street frontage. The north side of the burial ground adjoins the former St Paul's Church, now 'Freud's' wine bar. The burial ground was in use from 1771 to 1855. After its closure new buildings were constructed across part of it. These have been demolished for the ongoing

redevelopment to create the Radcliffe Observatory Quarter. The whole area as far north as the boundary with Freud's has been excavated.

Description of Evidence

8.6.2 Burials from the Radcliffe Infirmary Burial Ground were recorded during construction work in the 1930s (Dudley Buxton 1937) and during subsequent evaluations in 2007 (Watson 2007) and 2009 (Braybrooke 2009b). In 2009 some 36 identifiable burials were recorded and a sample of 14 were fully or partly excavated. They were predominantly aligned SW-NE. There was also evidence for a collective burial pit containing several individuals, possibly cross stacked. The cemetery was not of the lowest social status as some burials were in coffins, evident as stains and/or rows of nails. Nevertheless coffin fittings were simple, limited to grip handles on plain plates. There were only two decorated examples and the corroded remains of one coffin plate.

8.6.3 An osteological assessment indicated that the majority of the burials were of adult males, with some showing evidence of injury and infection. The charnel bones demonstrated greater variety, including women and children and evidence of medical interventions such as sawn limbs and a craniotomy (Braybrooke 2009b).

8.6.4 Among the 370 burial units that were identified in the 2013 excavations were 345 graves, 21 shallow pits containing isolated limbs and four charnel pits (pits containing disarticulated human bones from burials that were disturbed by later activity). From these a total of 347 articulated skeletons, 22 amputated limbs, nine isolated limbs (probably also amputations, but not confirmed) and 40 large bags of disarticulated/ charnel bone were recovered. The burials were found throughout the area that was investigated, although none were found beyond the line of the north-east foundation wall for the 1921 eye hospital. This foundation wall probably followed the line of the burial ground's original boundary, of which some physical evidence may have survived. No burials extended beyond the Walton Street wall, which defined the south-western limit of the burial ground. The extent of the burial ground to the south-east and north-west was not identified. The area to the south-east has been heavily truncated by modern activity, but burials may have continued under the St Catherine's building. To the north-west, the burial ground was built over by St Paul's Church, now Freud's.

8.6.5 The burials formed two distinct groups, located on the north-west and south-east sides of the burial ground, separated by a wide path which was completely free of burial activity or other archaeological features, and was bordered by linear bedding trenches on either side. This path is depicted in an engraving of the *University Printing House, from the Infirmary* by J. Le Keux, published in Ingram's *Memorials of Oxford* (1833).

8.6.6 Provisional observations made during excavation suggest that approximately 80% of the assemblage were adults and around 20% were juveniles (children and adolescents). Their ages ranged from birth to over 60 years, but the majority seemed to be 18 to 35 years of age. Interestingly, at least one of the children was below the required minimum age (seven years), specified by the Board of Governors for admission to the hospital (*Radcliffe Infirmary Rule and Orders*, 1770, 19). Around two thirds of the adults are males and around a quarter are females; the remainder (approximately another quarter), including the children, probably cannot be sexed. These observations will be considered further in the forthcoming post-excavation assessment report.

8.6.7 Other provisional observations are that skeletal pathology/evidence for disease is prevalent, as might be expected for a hospital assemblage. Evidence of medical

intervention has been observed on about 20 of the articulated skeletons (including three juveniles) and some of the charnel. This consists almost exclusively of limb amputations or craniotomies (removal of the top of the skull to enable study of the brain after death), although there is one example of a trepanation (a hole drilled or scraped through the skull to treat intercranial diseases or reduce pressure on the brain). Several of the amputated and isolated limbs bear the marks of instruments that had been used to amputate them, and in some cases it is possible to suggest the condition that had prompted their removal.

8.6.8 So far, evidence for anatomisation (defined here as the dissection, removal and separation of body parts following death) has been observed on one skeleton only. This apparent lack of anatomisation is unexpected, considering the numerous examples that have been found among contemporary hospital assemblages (for example, from Newcastle Infirmary and the Royal London Hospital), that have been archaeologically investigated in recent years.

Planning History

Only a limited amount of archaeological work had taken place on the site prior to recent development.

(UAD104), (UAD 764), (UAD 1811)

Significance

8.6.9 The excavated assemblage from the Radcliffe Infirmary far exceeds that of other contemporary assemblages. This therefore presents the rare and unexpected opportunity for detailed inter-disciplinary research on the development of surgery and hospital practice at this time. Overall, the human skeletal material is well-preserved and it will be possible to capture a significant amount of information on the health and physical attributes of the individuals, as well as on 18th- and 19th-century surgical practices and medical treatment. This can be supported by examination of the archives of the Radcliffe Infirmary, which have revealed a wealth of documentary material, such as minutes of meetings of the Board of Governors and a register of operations covering the lifetime of the burial ground.

Significance and potential

8.6.10 This sizeable and well preserved assemblage has enormous potential to add to existing knowledge at national and local levels. Hospital burial ground assemblages provide a unique window on post-medieval populations in terms of health status, demography, health care and medical history. In particular, they present the opportunity to explore medical interventions at a time when considerable advances were being made in medical science and practice, such as the introduction of anaesthesia (the advances made in surgical practice were contingent on the development of anaesthesia (in which Oxford played a key role),[6] and the passing of the 1832 Anatomy Act.

8.6.11 The number of post-medieval human skeletal assemblages to have been archaeologically investigated from Britain is relatively small and, as such, there are significant gaps in current knowledge of these populations, particularly when compared with other time periods. Of the post-medieval assemblages that have been investigated, those from hospital burial grounds are relatively uncommon and tend to comprise small assemblages. The Radcliffe Infirmary would seem to be unique in comprising the largest number of discrete individuals excavated from a hospital burial ground outside London. It also comprises the second largest assemblage of discrete

[6] See http://www.rcoa.ac.uk/about-the-college/history-of-anaesthesia.

skeletons from England after The Royal London Hospital (Fowler and Powers 2013). Comparative hospital assemblages which have been archaeologically investigated are given in Table 21. Added to these are examples of medical intervention that have been identified from non-hospital post-medieval assemblages, for example the dissected human remains from Benjamin Franklin House, Craven Street, London (Kausmally 2010) and the Old Anatomy School, Trinity School, Dublin (Murphy 2011).

8.6.12 Hospital assemblages are of particular interest for the information they provide on practices relating to anatomisation before and after the introduction of the Anatomy Act in 1832. However, unlike the comparative hospital sites listed in Table 21, the Radcliffe Infirmary seems to lack evidence for dissection / removal of body parts. Thus, the value of the Radcliffe assemblage is increased by being unusual in this respect.

Table 8.1 Archaeologically excavated post-medieval hospital assemblages

Name	**Date of burials**	**Number of skeletons**	**Reference**
Royal London	1825-1841/2	636 articulated skeletons and disarticulated from 175 contexts	Fowler and Powers 2013
St Bartholomew's London	1726-94	Disarticulated from a MNI of 2 individuals	West 1980
Bristol Royal Infirmary	1757-1854	106 articulated skeletons and disarticulated from a MNI of 544 individuals	Witkin 2011
Worcester Royal Infirmary	18th-19th century	Disarticulated bone from a MNI of 18 individuals	Western 2012
13 Infirmary Street, Edinburgh	1749-1821	6 articulated skeletons and disarticulated bone	Henderson *et al.* 1996
Surgeon's Square, London	18th and 19th centuries	55 disarticulated bones	Henderson *et al.* 1996
Newcastle Infirmary	1753-1845	210 articulated skeletons plus disarticulated bone from a MNI of 400 individuals	Boulter *et al.* 1998
Royal Naval hospital, Greenwich	1749-1857	101 skeletons	Boston *et al.* 2008

8.6.13 Locally, some relatively scattered osteological examples of medical intervention have been found around Oxford (see Boston and Webb 2012), but none that match the scale of the Radcliffe Infirmary burial ground, which is the first of its kind to be excavated in the region. Not only does the assemblage present a rare opportunity to significantly add to a growing corpus of data on hospital assemblages from around the country, but it is also presents the unique opportunity to study the physical evidence of one of the earliest and longest lived public hospitals to be established outside London, in a city that is home to one of the earliest medical schools in Britain.

8.6.14 The Radcliffe assemblage is also highly significant because it is rare in possessing a wealth of documentary source material (see above) that exceeds contemporary assemblages (for example, The Royal London Hospital; see Fowler and Powers 2013) in completeness and extent. It therefore presents the opportunity to compare the

physical evidence with the written record, which will provide an insightful and fascinating perspective on Oxford between 1770 and 1855. In addition, the Radcliffe Infirmary was the principal health care provider to individuals who were too poor to afford private treatment at home. Those interred within the burial ground probably had no surviving relatives and/or had families who could not afford to transport them to their home parish for burial. Archaeological studies of post-medieval populations have tended to focus on the middle and upper classes and therefore the Radcliffe Infirmary assemblage is a rare opportunity to learn about the lives of the poorer members of post-medieval society.

8.6.15 Finally, the assemblage holds significant potential for isotope analysis, to explore the origins and diet of the individuals buried at the hospital. In particular, the associated documentary evidence, which shows that the individuals had relatively local origins, presents the unique opportunity to test some of the assumptions frequently made when determining the ratio of 'locals' to 'incomers' in skeletal populations.

Summary of Significance

8.6.16 The skeletal remains from the Infirmary burial ground are of undoubted national significance, and come from a well-defined area.

8.7 The Radcliffe Observatory Quarter

Summary Description

8.7.1 The foundation stone of the Radcliffe Infirmary in Woodstock Road was laid in 1761. The original building lies on the west side of the front courtyard, where Bell's 1857 fountain stands. Many additional buildings were added during the 19th and 20th centuries. The hospital was a university institution until 1884 and finally closed as a hospital in 2007. The site was then acquired by the University of Oxford for development as the Radcliffe Observatory Quarter. The name comes from the 18th-century Radcliffe Observatory which actually lies within the grounds of Green Templeton College to the north of the site. The ongoing development will include Jericho Health Centre, student accommodation, the Mathematical Institute, the Blavatnik School of Government and Radcliffe Humanities, this last based in the surviving hospital buildings.

Description of Evidence

8.7.2 A recent geo-archaeological assessment carried out by Museum of London Archaeology on samples taken from the Radcliffe Infirmary site was intended to examine the potential there for Lower/Middle Palaeolithic evidence within the Summertown-Radley Gravel Formation (Ruddy 2009, 1). Three phases of braided river development were recorded, indicated by coarse grained gravel sediments, interspersed with lower energy channel flow, or episodes of standing water (as indicated by fine-grained sediments). The majority of the gravel beds were initially thought to correlate with the Stanton Harcourt Gravel (MIS 6). However, three OSL dates obtained from the fine grained material led to a reappraisal of the chronology. Two OSL samples were taken from the fine-grained sediment at a height of 60.83m OD and produced a date of 86.10+/- 9.19 Ka BP, and 76.12 +/- 26.22 Ka BP. Another OSL date was taken at an elevation of 61m OD and produced a date of 95.66 +/- 13.5 Ka BP. These dates suggest that a longer chronology of lithostratigraphy survives on the site than previously believed. The OSL dates fall within the Early Devensian period, leading to the association of the upper gravel units with the Northmoor Gravel

member. The lower units may therefore form part of not only the Stanton Harcourt Gravel (MIS 6) but also the Eynsham Gravel (MIS 5e) (Braybrooke 2010, 74)

8.7.3 Excavations at the Radcliffe Infirmary in 2009 identified a Neolithic enclosure, itself enclosed by a later barrow (Braybrooke 2010, 14). Such an arrangement is unusual and the enclosure may be interpreted as perhaps a Neolithic mortuary enclosure broadly similar to examples in Northamptonshire (Deegan and Foard 2007). Radiocarbon dating from the primary fill of the enclosure ditch provided a date of 3530-3600 cal BC (95% probability). A single animal sacrum, thought to have been from a calf, was recovered from the ditch (Braybrooke 2010, 16).

8.7.4 The Radcliffe Infirmary excavations identified three round barrows whilst a fourth barrow was identified in a subsequent watching brief. The largest ring ditch (A) enclosed the earlier sub-rectilinear Neolithic enclosure (Braybrooke 2010, 14). Ring Ditch A was approximately 58m in diameter with a ditch 4.2m wide and around 1.2m deep. Two cremation burials were recorded within Ring Ditch A, external to the enclosure. Radiocarbon dating from one burial provided a date of 2030-1870 cal BC (95% probability). The sample from the second cremation was unsuitable for dating (Braybrooke 2010, 16). OSL dating of the secondary fills has given a date of 731 BC–AD 69 (2.34±0.40ka, 17% error), for the infilling of the ditch (Braybrooke 2009a, 109).

8.7.5 About 30% of Ring Ditch B had survived previous truncation and consisted of two concentric ditches. The U-shaped profile of the outer ditch appeared similar to the ditch of A with a width of around 3.8m and a depth of 1.2m, and was calculated as having a diameter of c.39m. The inner ditch was around 19m in diameter with a V-shaped profile and a width of around 2m and a depth of 1.1m (Braybrooke 2010, 15). Although no suitable samples for radiocarbon analysis were taken, OSL dating of the secondary fills has given a date of 1180–560 BC (2.88±0.31ka, 11% error for the infilling of the ditch (Braybrooke 2009a, 109).

8.7.6 Ring Ditch C was the best preserved in plan, with more localised truncation. This had a similar profile to ditches A and B and was 48m in diameter. No samples suitable for radiocarbon dating were identified. A cluster of undated postholes was recorded at the centre of the ring ditch. Ring Ditch D sat largely under the 18th-century Infirmary building; the investigated area was badly truncated by modern quarrying and only a small section was recorded, but it was estimated that it was of a similar dimension to B (Braybrooke 2010, 15). OSL dating of the secondary fills has given a date of 790–270 BC (2.54±0.26ka 10% error) for the infilling of the ditch (Braybrooke 2009a, 109).

8.7.7 The Radcliffe Infirmary site has produced some of the earliest Saxon evidence in the vicinity of the later town (Braybrooke 2010; UAD1761). The evaluation revealed one early to middle Saxon feature thought to be a sunken feature building (SFB) with evidence to suggest it had been destroyed by fire (ibid., 13). The backfill of the feature produced a stamped 6th-century sherd. A possible well and a pit containing loom-weight fragments were also recovered, along with pottery suggesting occupation in the 6th century. The settlement appears to have chosen a Late Neolithic-Early Bronze Age barrow cemetery, known from 12th-century documents to be partially extant in the Saxon period, as a focus for settlement. The relationship between this short-lived settlement and the nearby late Saxon settlement at Walton remains unclear. Despite previous recorded observation of possible Saxon burials at the Radcliffe site (UAD118; 728) no evidence for a cemetery was recovered from the excavated area. Sturdy had previously proposed an early settlement focus north of the later *burh*, based on the recovery of stray finds from this area (Sturdy 2004, 23)

8.7.8 Early Saxon finds include fragments from at least two different loom-weights recovered from a rubbish pit and make-up layer at the Radcliffe Infirmary site. Although badly degraded the weights appeared to be annular and apparently unfired, it was suggested that the associated evidence was indicative of a possible loom-weight kiln (Braybrooke 2010, 17).

8.7.9 There were settlements at Buricroft, a small hamlet first recorded in the 13th century, although a 'croft of the three barrows' is recorded in the 12th century. The name may reflect the presence of late Neolithic/early Bronze Age barrows at the site. It was probably located close to the site of the Radcliffe Infirmary on the Woodstock Road, Work at the Radcliffe Infirmary identified two linear boundaries at right angles to the road (Braybrooke 2009a). One ditch contained 13th-15th-century material, and together with a parallel ditch may have formed a small field or croft boundary. An extensive spread of undated post or stakeholes was also recorded near the Woodstock Road frontage (Braybrooke 2010).

8.7.10 The Radcliffe Infirmary, built with the legacy of John Radcliffe, funded by voluntary subscription and designed by Stiff Leadbetter was proposed in 1758 and opened in 1770 (Sherwood and Pevsner 1974, 305). The Infirmary had a series of ancillary buildings to the rear; extensive formal grounds and a burial ground fronting on to Walton Street remained in use until the middle of the 19th century (the burial ground forms a distinct entity; see above). An extensive open area excavation to the west of the Infirmary in 2009 recorded garden bedding trenches, boundary wall and soakaways. Remnants of the 18th-century brewhouse were represented by some stonewall fragments and a stone barrel-vaulted cellar. The cellar back-fill contained a large quantity of pottery dated to 1807-1820 which corresponds to the documented date for the demolition of the brewhouse and its replacement by a conservatory. To the south and west of the brewhouse a further stone cellar was later reused as a soakaway for at least two brick-lined rain water drains. The collection and management of water within the hospital was also evidenced in a stone-lined drainage cistern, fed by five stone lined drains from the rear of the infirmary building and one from the building associated with the second stone-lined vaulted cellar (Braybrooke 2010).

8.7.11 The main block of the hospital is a Grade II* Listed Building (LB 612/2/101) while St Luke's Chapel (LB 612/3/868), the boundary wall along the Woodstock Road (LB SP 5007 SE 2/870 SP 5107 SW 3/870 II), Gateway Number 3 and its flanking walls (SP 5107 SW 3/870A), Gateway Number 5 (LB SP 5107 SW 3/870B) and the fountain in the entrance courtyard (LB SP 5107 SW 3/869) are all Grade II Listed Buildings.

Planning History

Only a limited amount of archaeological work had taken place on the site prior to recent development.

(UAD104), (UAD 118), (UAD 728), (UAD 764), (UAD 1811).

Significance

8.7.12 The Radcliffe Infirmary is an example of a large hospital complex, which evolved from its 18th-century core to a modern facility. It is particularly distinguished as the site where in 1941 penicillin was first used to treat a patient.

8.7.13 The excavations carried out have identified a Neolithic enclosure, possibly a mortuary enclosure, which is unusual in being enclosed by a later barrow ditch. In all, the ring ditches from four Bronze Age barrows have been identified. These barrows are part of a wider linear barrow cemetery located across north Oxford.

8.7.14 Archaeological investigations have also uncovered evidence for early to mid-Saxon settlement. Evidence from this period is rare in Oxford.

8.7.15 The discoveries on this site have added important evidence to the development of understanding of prehistoric Oxford, and further instances of burials in a probable 'sacred landscape', possibly centred on a henge monument. Although fragmentary, the evidence also fits into the regional pattern of settlement in this part of the Thames valley, and is of national importance.

Summary of Significance

8.7.16 The archaeology of this site touches on areas of undoubted national significance, principally the prehistory of the upper Thames valley, though it was only defined by the extent of the discovered burial monuments and the available area of excavation.

PLANNING CASE STUDY REVIEWS

8.8 St John's College Kendrew Quad

Overview

8.8.1 In 2003 St John's College proposed the demolition of the 1960s wing of Elizabeth House and the construction of a new accommodation building, located behind the street frontage of St Giles, a wide extra-mural street in north Oxford. The archaeological potential of the site was highlighted by a desk-based assessment (OA 2003) and this potential was confirmed by a field evaluation (OA 2007). The evaluation comprised five trenches (four of 10 x 1.8m and one 17 x 1.3m wide). A number of archaeological features were recorded, mostly pits dating from the 13th to 19th centuries. Planning permission was granted in 2007 with an archaeological condition for excavation and this was undertaken in 2008 by Thames Valley Archaeological Services on an irregular plot of land located between St Giles and Blackhall Road, covering approximately 0.18ha. The excavation site was roughly 'n' shaped in plan, due to the presence of a protected mature beech tree, around which it was necessary to leave a large root protection zone.

8.8.2 Based on the results of the evaluation it was expected that the work on site would mainly be directed at post-medieval and medieval garden and back plot activity, and indeed, the uppermost archaeological deposits included the expected pits, postholes, and hearths. However, below the suburban tenement deposits of 12th-19th-century date an unexpected mass grave was revealed, located within a massive prehistoric ditch, subsequently identified as part of a henge. The objectives of the excavation therefore had to be extended with the support of the college.

8.8.3 The earliest feature on the site was a ditch, around 7m across at the top and 2.5-2.9m deep, projected to occupy a roughly circular layout about 150m in diameter. It was constructed in the late Neolithic, perhaps around 2000 BC, and remained a feature in the landscape for the next three millennia. No bank or adjacent features were recorded in the excavation area. It has been interpreted as part of the sub-circular ditch of a henge. Within the excavated section of silted up ditch was a minimum of 34 male and two juvenile bodies, which had been stripped of belongings and subject to an array of puncture wounds and blade injuries. The excavator has suggested that these may be associated with the event known as the St Brice's Day massacre of AD 1002 (Wallis forthcoming) although an alternative interpretation, that this represents a Viking warrior band, has been suggested by Pollard (2012). Subsequent isotopic analysis of

the human remains indicates that the victims had consumed more fish than might be expected of the broadly local population and radiocarbon dating supports a Late Saxon date for the episode.

Key Themes for Significance

- The evaluation failed to identify the henge and mass burial, although it was a arguably a robust sample in terms of size. The upper fill of the henge ditch would have contained post Norman deposits similar in character to those in the numerous quarry pits found across the gravel terrace in suburban north Oxford, hence the difficulty of identifying the feature at the evaluation stage.
- Only part of the Oxford henge was recorded during the excavation, but its projected diameter of around 150m places it squarely in the monumental class, of which only around 20 are known in Britain. The excavation revealed no evidence of either a causewayed entrance or an outer bank, and no other features could definitely be associated with the henge ditch.
- A very small number of contemporary mass graves are recorded in England (Weymouth) but none with directly comparable contexts.
- The rarity and preservation of the henge and Late Anglo-Saxon period mass grave present a clear case for national significance for both assets.
- The projected extent of the henge runs under a nearby road and through the grounds of Keble College which has a number of large 'monumental' buildings. Significant localised disturbance to the henge can be anticipated from monumental college buildings and landscaping.
- No further human remains are known to be preserved within the ground, but it is possible that further remains are present elsewhere in the henge ditch.

The henge is likely to be irregular in shape (if indeed it was completed). The observation of the possible henge ditch in a service trench in Keble Road provides further data on the likely morphology of the henge.

8.8.4 *Summary Significance and Definition:* It is possible to identify a clear zone of potential based on the projected extent of the henge, but the extent of survival around this circuit is not easy to predict because of the urban topography and land-use history. For this reason it is unlikely that the projected extent of the remaining henge would be selected for scheduling. However, should further coherent sections of ditch be identified, especially if later burials are present, it is likely that these would be assessed as of national significance.

8.9 Littlemore Nunnery (Minchery Farm)

Overview

8.9.1 An application for a new hotel range close to the Kassam Stadium in Oxford was subject to pre-application discussions in 2004. The site was located north of an upstanding Grade II* listed 15th-16th-century dormitory range and later farmhouse (until recently a public house) well-known to be associated with the 12th-16th-century Benedictine nunnery, the Priory of St. Nicholas (Pantin 1970). The hotel was to be located in the vicinity of the projected northern claustral range of the nunnery near to the anticipated church and graveyard. The site was evaluated in 2004 and results suggested poor levels of survival in the vicinity of the new hotel footprint because of robbing and disturbance from later farm buildings. An east-west wall was identified as probably belonging to the church. An evaluation trench to the north did

not pick up a second wall so the identified wall was assumed to be the north wall of the church. The plan of Norton Priory was used as a reference point and a proposed link between the dormitory range and new hotel was designed out in order to leave the hypothesised church between the two structures. The evaluation also identified (what turned out to be) some of the lower grave cuts in the cemetery (at 59.50m OD and below). The subsequent 2005 planning consent for the development was provided with a tailored condition to minimise the impact on the church, with an assumption that a number of graves and part of the church would be impacted by foundations and services.

8.9.2 The applicant subsequently undertook some laying-out work and received formal confirmation from the council that development had commenced, the planning consent therefore remained live. A mitigation strategy was developed between the planning archaeologist and archaeological consultant based on the preservation of the church and excavation of encountered graves.

8.9.3 In 2010 the applicant sought an extension of application and the new planning archaeologist sought an amended condition, but the council subsequently confirmed that it had formerly accepted commencement in writing and the application for an extension was withdrawn.

8.9.4 In 2012 the Council allowed the East Oxford Community Archaeology Project (Archeox), organised by the Oxford University Continuing Education Service, to excavate part of the cloister of the Nunnery and two outlying sites on its adjacent land-holding as part of a community archaeology excavation. The excavation produced information about the layout, character and survival of the cloister and a likely kitchen, including the identification of an associated rubbish pit containing probable kitchen waste and evidence for a nearby residence of some status and an associated 'workshop' (Archeox forthcoming).

8.9.5 The hotel scheme was brought forward in 2014 with the planning archaeologist requesting minor amendments to the previously agreed mitigation strategy. The open area excavation of the new build footprint demonstrated that the assessment of the evaluation trenching had been incorrect, in that the wall identified was in fact the south wall of the church and the bulk of the building therefore lay within the development footprint of the hotel. Furthermore, an extensive area of burials was encountered by the site strip at a higher level than suggested by the evaluation (the highest burial was at 60.38m OD). A number of mass concrete foundations that required removal were cut through the church and external cemetery. The excavation identified between 90-100 burials in total. The character and variety of the burials was significant; they included a prone burial with an infant, a central cist burial, internal transept burials of likely higher status, and external burials of women and children. Reading University was approached with a view to undertaking isotope analysis of the recovered human remains as part of a funded PhD programme.

8.9.6 The church proved to be heavily robbed and little structural or artefactual material was recovered. A possible bell pit and the morphology of the church, including likely side chapels and walls running to the north, were identified. The robber trenches, islands of intact masonry, plan and possible bell pit were substantively preserved below an amended foundation design.

Key Themes for Significance

- The excavation demonstrated that the medieval burials were mostly higher than suggested by the evaluation results and demonstrated that the hypothetical positioning of the church had been inaccurate.

- The initial assessment arguably privileged the significance of the church over the interest of the burials. The evaluation sample trench locations and results over-emphasised the levels of disturbance caused by later farm buildings on the site.
- The targeted community archaeology excavation that took place on another part of the nunnery subsequent to granting of consent for the hotel produced important information about the character and quality of surviving remains. The historic interest and archaeological interest of the wider asset were enhanced by the community excavation. For example, the kitchen midden remains may have associative value with the isotope signatures of the human remains.
- After excavation it is clear that the church was heavily disturbed by robbing and truncation. No floor levels and little related architectural detail survived. It was possible for the form and bulk of the remaining foundation trenches to be preserved within the design.
- In the end the biggest impact was on the associated burials. These were rapidly exposed by the strip and record excavation at a higher level than anticipated and proved to be well-preserved and varied in type, making them arguably of national significance. The exposure of human remains and the need to remove mass concrete foundations necessitated the excavation of the bulk of the burials within the hotel footprint.
- Medieval nunneries are a relatively rare asset type that have not been subject to extensive excavation. Approximately 153 nunneries are documented, of which the location of two thirds are known (English Heritage 2013, *Designation Scheduling Selection Guide Religion and Ritual post-AD410*). They are of particular interest for preserving the material remains of communities of medieval women, which can be recognised as being generally underrepresented in the archaeological record.
- The remains of the nunnery as a whole can be assessed as nationally significant based on 1) the limited number of comparable sites and low level of their investigation 2) the associated architectural, historic and archaeological interest of the a standing (and listed) dormitory range, 3) the range of associated below-ground features now identified by fieldwork: the remaining parts of the cemetery in the hotel car park and garden area, the now-defined cloister and kitchen remains, a nearby high status residence (identified by the community excavation) and 4) the anticipated information about diet and life-ways that is likely to result from analysis of the results of the two recent excavations.

8.9.7 *Summary Significance and Definition:* The discoveries are of national importance and the area of the main ranges of the nunnery can generally be defined, though with less certainty of the quality of surviving remains, and the extent of the wider precinct and associated features (outbuildings, ponds, etc.).

8.10 The medieval cemetery of St John the Baptist Hospital - Magdalen College Longwall Quadrangle

Overview

8.10.1 In 2011 pre-application discussions took place regarding the construction of a new basement and sunken extension for the 19th-century 'New Library' in the Longwall Quadrangle of Magdalen College. Here the capacity of the site to incorporate new buildings was heavily constrained by the setting requirements of adjacent listed structures. Pre-determination trenching within the functioning New Library was not possible, but a number of small test pits were excavated around the outside of the

Library for geotechnical purposes, and two trenches were placed within the grassed quadrangle. One of these identified six burials belonging to a previously unrecorded cemetery believed to be associated with the medieval Hospital of St John the Baptist. The planning archaeologist briefly paused work to clarify that there was no possibility that the burials were associated with the former Jewish Cemetery (the 'Garden of the Jews') that is known to have preceded the 13th-century hospital. The evaluation recorded six tightly-spaced graves (with evidence for intercutting) contained the articulated skeletons of men, women and children. A second trench identified pits and cess pits associated with medieval properties known to have occupied the street frontage along Bridge Street (now High Street). The trial trench demonstrated that burials continued eastwards beyond the proposed sunken library extension footprint.

8.10.2 Ground penetrating radar, magnetometer and resistivity surveys were undertaken in the grassed quad to try and establish further information about the cemetery, but none of these techniques proved fruitful beyond identifying a possible southern boundary. Further documentary and map regression work suggested that a square plot to the rear of former medieval tenements may have been a remnant cemetery plot.

8.10.3 The English Heritage Human Skeletal Biologist was consulted regarding the possible significance of the cemetery and advised that fewer than 20 archaeological excavations in England have produced burials from cemeteries associated with non-leprosaria medieval hospitals. Of these, most have produced only small numbers of burials, although there are exceptions, such as St Mary Spital, London. It was suggested that if *c.*200-300 well-preserved burials were excavated the human remains would be of regional and some perhaps of national importance.

8.10.4 The planning archaeologist took the view that the impact of the building would not be likely to result in the substantial removal of the cemetery and requested a planning condition for excavation.

Key Themes for Significance

- The development impacted on a number of other designated structures and considerable time was spent in discussing and assessing the merits of the scheme and the college's need for the new facility. The application site lies within a Grade I Registered Park and Garden and the Central Conservation Area. It involves works to a Grade II* building and impacted on the setting of a Grade II* perimeter wall.
- The scope of evaluation was constrained by tree protection issues and the operational needs of the college. Furthermore, with regard to establishing the full extent of the cemetery the planning archaeologist had to be mindful of 1) the reasonableness of asking for evaluation work beyond the proposal footprint, 2) the operational needs of the college, and 3) the potential for evaluation trenching of non-impacted burials to destabilise/impact remains that were not under threat of development.
- The assessment made of the site was that the asset as a whole had the potential to be of national significance, either in terms of assemblage size or the presence of exceptional individual burials. However, arguably the burials exposed in the evaluation alone did not themselves equate to 'demonstrable' national significance. The hypothesised extent of the cemetery suggested that the impact of the development would not involve the substantive removal of the cemetery, although further trench evaluation of the wider quadrangle was not attempted.
- The subsequent excavation recorded 113 burials (55 adults (18 females), 26 older juveniles, 22 infants and 10 unclear).

8.10.5 *Summary Significance and Definition:* The discoveries touch on themes of national importance even if the remains discovered so far are not themselves of such significance. The full extent of the cemetery is however uncertain, and so the potential remains on a site that cannot exactly be defined.

8.11 Medieval and post-medieval street frontage tenement remains - Magdalen College Longwall Quadrangle and New Library

Overview

8.11.1 As noted in the case study above, in 2011 a pre-application discussion took place Magdalen College to discuss the provision of a new basement and sunken extension to the 19th-century 'New Library' in the college's Longwall Quadrangle. The scope for pre-determination trenching within the proposed footprint of the new building was constrained by the presence of book stacks within the Library basement. A number of small trenches were excavated around the outside of the Library identifying construction cuts, the level of a former gravel path (Gravel Walk) to the south and rubbish/cess pits to the north. At this point the structural engineer commented on the challenges that might be faced in reducing the floor level within the New Library because of the potential for the groundwater level to rise up through the existing foundations when the nearby River Cherwell was high.

8.11.2 In July 2012 planning permission for development was granted and subsequently in August 2012 the basement stacks were temporarily dismantled to allow access for limited evaluation within the basement. The evaluation found a sequence of well-preserved and partially water logged remains, comprising walls and floor levels from medieval street frontage structures. In 2012-13 excavation in the Longwall Quad investigated the medieval cemetery and the remains of the rear buildings and yards of the medieval and post-medieval tenements, located behind (to the north) of the New Library.

8.11.3 Within the New Library the planning archaeologist requested full excavation of the basement impact. However, the requirement of the structural engineers that excavation should be undertaken in separated sequential strips in order to protect the vulnerable foundations led to the college bringing in an archaeological consultant to review the sampling strategy. Proposals were put forward by the consultant to sample only the tenements with the best preserved and most contiguous remains to the rear of the street frontage (as excavated in the quadrangle excavation, and it was suggested that such sampling might be acceptable because of the high level of documentation for the tenements). The planning archaeologist did not accept these arguments and took the view that the documentary evidence for trade activity located in these tenements (for example for scriveners and dyers, reflecting both the location of industrial processes outside the town walls and the proximity of the medieval academic 'Schools Quarter' to the west along the High Street) enhanced the significance and potential of the site. As the precise location of well-preserved and high-quality remains could not be anticipated, a full excavation was therefore requested. Flexibility over publication timescales and close monitoring was offered.

Key Themes for Significance

- Well-preserved street frontage structural remains and the coherent survival of medieval and post-medieval tenement plots (front and back) are increasingly rare within urban contexts because of the cumulative impact of development.
- Generally speaking, medieval street frontage structural remains are more likely to be encountered in suburban or peripheral/side street locations than on

principal axial streets where they are more likely to be more heavily impacted by later cellars.

- As with the New Library example, the impact of large monumental college structures along the main axial street is hard to assess. The available walk-over cellar survey for Oxford indicates that axial street frontages have been heavily impacted by cellars/basements; nevertheless there are a handful of sites where Late Saxon remains (and in at least one example, medieval floors) are known to survive below existing shallow cellars.
- It is hard to make clear quantitative statements without more accurate cellar/truncation/deposit model information, but the existing cellar survey suggests the likely rarity of the survival of in situ medieval frontage structures and highlights zones of potential for such survival.
- The medieval town as a whole can be assessed as a nationally significant asset. Making a judgement about the impact of development on either blocks of rear tenements and/or street frontage remains is challenging, especially as the opportunity for pre-determination evaluation is often limited by physical or other site constraints, and because a contextualised assessment of importance really needs to take into account the character and quality of remains in a given location.

8.11.4 *Summary Significance and Definition:* The discoveries touch on themes of national importance and for their location have a high potential to contribute to the archaeology of the medieval town. The definition of these significant themes can only defined quite generally.

8.12 Excavations at Lincoln College Garden Building

Overview

8.12.1 A recent 2012-2013 excavation involved the mitigation of a basement construction (for a new music room) at Lincoln College that was constructed on the footprint of a previously standing building (the Garden Building). Meaningful pre-determination evaluation of the site was therefore not possible, and it had to be assessed on the basis of adjacent information and documentary evidence. Given the absence of demonstrable evidence for the character and survival of remains either within the new build footprint or directly adjacent to it, a conditioned approach to recording was accepted.

8.12.2 The site is located within the eastern part of the late Saxon *burh* and lies between three sites that have produced Late Saxon evidence. Previous investigations have recorded late Saxon remains to the north at the Lincoln College Kitchen excavations (Kamash *et al*. 2002; see also above), to the south at All Saints church (Hassall 1974) and to the east at Brasenose College Staircases 16, 17 and 18 (UAD Event No 179). The All Saints and Lincoln kitchen excavations both preserved evidence of burnt structures and burnt cereals suggesting an area within the *burh* that may have been associated with cereal storage and potentially related commercial activity (e.g. bread making or malting). The kitchen site produced evidence for a sequence of burning episodes and evidence for fire clearance episodes manifested as pits with multiple fills. The kitchen site also produced evidence for meat and fish storage and metalworking. The All Saints site produced evidence for possible cloth manufacturing.

8.12.3 Furthermore, the kitchen site produced evidence for late 11th-century cellar pit construction (previously these pits were generally assumed to be an early 11th-century

phenomenon). There was also evidence that the cellar pits had a commercial rather than domestic use (e.g. clay-lining, and a lack of domestic pottery). The site also produced one of the most substantial late Saxon pottery assemblages recovered from Oxford to date. It was also notable for producing indications of significant activity away from the principal street frontage in the 11th century (e.g. orientated on Brasenose Lane to the north) providing evidence for the density of urban activity within the *burh* defences. The late Saxon pottery imports recovered from the college kitchen and All Saint's church sites, both located in the eastern part of the *burh*, appear to be different from those from known contemporary sites located in the western part of the *burh*. This raises the possibility that different cultural traditions of pottery use, indicating perhaps two distinct ways of cooking and eating amongst the resident population, may be identifiable within the settlement (Mellor 2003, 342).

8.12.4 The available documentary evidence indicated that in the 13th century the Garden Building site was located within tenements belonging to the Hospital of St John and John Warwick and Roger Folkus. The latter tenement may have originated as a plot fronting onto the High Street which was later subdivided. This and the Hospital of St John plot may have subsequently been accessed via a lane located to the north of All Saints churchyard, later to become a yard off Rotten Row, a lane established around the east and northern sides of the churchyard. Around 1210, Stephen *Molendinarius* (miller) held a capital messuage here. Reserving this to himself, he granted his house (presumably a second house) and oven together with his mill and ?drying house to his son in law Walter of Oseney, baker and miller, and his wife. A quitclaim of 1238-9 explicitly mentions a property 'between two ovens' in the vicinity. Subsequently, there is an interesting reference associated with the St John's Hospital tenement, which in 1388 and 1393 is recorded as held by Nicholas Goldsmith. The Aurifabers (Goldsmiths) were a leading family in Oxford in the 13th and 14th centuries, and held much property, including some on the west side of Turl Street. While the family may have originated as goldsmiths, it is unlikely that they all continued in the trade over this period, although the surname endured. It is possible that Nicholas Goldsmith was a member of this family, and not necessarily a goldsmith.

8.12.5 Lincoln College was founded in 1427 by Richard Fleming, Bishop of Lincoln. It originally consisted of a single quadrangle on the angle of Turl Street and Brasenose Lane. A second quadrangle (Chapel Quadrangle) was added to the south in the 17th century and a walled garden (The Rector's Garden) was established to the east. In the post-medieval period the Garden Building site was partly occupied by structures fronting onto Rotten Row, but is likely to have also included land within the walled Rector's Garden and an adjacent garden space between Lincoln and Brasenose College. The area of Rotten Row was finally cleared in 1808 when eleven houses were demolished, a new wall was built towards Turl Street, and the Fellows' Garden as laid out. This was recorded in detail on the first edition Ordnance Survey town map of 1876.

8.12.6 Previous watching briefs in the Fellows' Garden identified a series of walls west of the current Garden Building, located 300mm below the present ground surface, thought to be associated with the post-medieval buildings of Rotten Row (Kamash *et al*. 2002). A poorly-understood vaulted structure has also recorded west of the Garden Building in the southern part of the Fellows' Garden (UAD Event No 472). A heavily-constrained evaluation by Thames Valley Archaeological Services in 2010 involving pits excavated against the external wall of the Garden Building failed to identify any significant remains, but the depth of the investigations was limited (TVAS 2010).

Results of the 2012-2013 investigation

8.12.7 Surprisingly, given the proximity of the site to previous discoveries of significant later Saxon activity (both at Lincoln College kitchen and All Saints church) little evidence, bar a handful of pottery sherds, was found for activity relating to this period. The earliest activity at the site dated after the Norman Conquest, and was represented by relatively typical back yard activity in the form of a large number of pit features. The pits probably served differing functions such as gravel quarries, cesspits and wells. One of the pits appears to have been lined with timber suggesting that it may have served as a storage area or cellar. The pits went out of use when they were all in-filled with deposits containing domestic refuse.

8.12.8 The nature of activity in the area changed dramatically in the 13th/14th century when a finely constructed large masonry building was built on the southern half of the site– this certainly provides evidence for significant development and expansion into the back area of the tenement, and indicates that space on the frontages was in short supply. The building may have served an industrial function as it contained a large stone-built oven and a hearth which was associated with metal working debris, adjacent to a stone lined pit. A number of crucible fragments (several with possible gold droplets adhering to the inside), ceramic mould fragments and debris from copper alloy working suggest the manufacture of small metal objects, possibly inlaid with gold. The hearths and metalworking evidence provide an interesting link to documentary evidence for a resident baker and a goldsmith nearby.

8.12.9 Rubbish pits associated with this phase of use suggest that the inhabitants enjoyed a good diet which included meat luxuries such as game, fallow deer, roe deer and hare. By the late 16th century this building had fallen into disuse and a new building was constructed on the site, which reused some of the medieval walls. This may represent the initial development of Rotten Row, as the building appears to have had a domestic function, with a fireplace within the north wall and an external well-house and latrine.

8.12.10 Assessment of the animal bone suggests that the inhabitants enjoyed a more mundane diet compared to that of their medieval predecessors. Initial analysis of the charcoal remains suggests that beech seems to have been favoured as fuel during this time, in marked contrast to the mixture of oak that had been utilised earlier in the medieval period. Whether this is a reflection of the change from industrial to more domestic activity on site may become more apparent during detailed analysis of the results.

8.12.11 The 18th century saw further modifications to the building on the site with the construction of substantial cobbled surfaces that probably formed parts of open yards between the buildings, as shown on contemporary maps. Evidence for the demolition of Rotten Row and the construction of the Fellows' Garden in the early part of the 19th century overlay the perfectly-preserved courtyard surfaces and comprised deposits up to 1m thick.

Key Themes for Significance

- The music room basement involved the excavation of a 13 x 15m area (approximately) located within backstreet plots, within the walled town.
- Pre-determination the site was physically constrained by an existing building and protected trees.
- Despite the presence of interesting late Saxon sites close by on three sides, the site proved to preserve little late Saxon evidence.
- The medieval and post-medieval finds and structures recorded clearly contribute to the broader story of Oxford rather than being exceptional in and of themselves.

- To some extent the 'value' of this and previous Lincoln College sites is still evolving as the information is synthesised, digested and added to.
- The excavation represented a small cumulative impact on a large nationally significant asset (the medieval walled town); however on balance the results of the excavation itself would be unlikely to be assessed as nationally important.

8.12.12 *Summary Significance and Definition:* The discoveries touch on themes of national importance and for their location have a high potential to contribute to the archaeology of the medieval town. The definition of these significant themes can only defined quite generally within the college site, and also depends on their actual survival.

8.13 Middle Neolithic Enclosure and Linear Barrow Cemetery - Excavations at the former Radcliffe Infirmary Site (OU Radcliffe Observatory Quarter).

Overview

8.13.1 The former 18th-21st-century Radcliffe Infirmary grounds located between Walton Street and the Woodstock Road in north Oxford was obtained by Oxford University Estates Department in 2003 with a view to providing a large central block of land for a new centrepiece University Quarter. The quarter was to include new teaching, administrative and research facilities include new humanity faculty and mathematics buildings and a replacement Jericho Health Centre. The former 18th-century Infirmary building, 1913 Outpatients Building and infirmary chapel were retained and the remainder of the grounds were cleared of numerous pre-war and NHS era structures with the exception with a complex at the northern end of the site which is currently being used as a store and admin block for the Ashmolean Museum.

8.13.2 A Conservation Plan (2006), a Master Plan (2007), an archaeological desk-based assessment (MoLA 2007) and Strategic Environmental Assessment were produced for the 4.2ha site.

<The site before demolition of the NHS structures (from OUED Master Plan 2008)>

8.13.3 The site is located west of known ring ditch parch marks in the University Parks which were suggested by Tom Hassall in the 1970s to include a linear barrow cemetery running east-west across the gravel terrace, this hypothetical alignment could be projected into the ROQ site. A 12th century deed recorded an enclosure in this area as 'the croft of the three barrows' (tittle deeds from *c.*1160 refer to *crofta trium bergarum* or *crofta trium burhhes)* and the *Natural History of Oxfordshire* (1677) by the first curator of the Ashmolean Museum, Dr Robert Plot, also records the presence of grass marks in the vicinity. The barrows form part of an extensive complex of Neolithic-Bronze Age funerary/ritual monuments located across the Thames second gravel terrace under central and northern Oxford. The complex includes a henge monument located within the new Kendrew Quad of St John's College in 2008.

8.13.4 The ROQ site also had potential for early Saxon remains as poorly located burials of this date were recovered during construction work on the Radcliffe Infirmary. Furthermore as the ROQ site is located on a spur of the Summertown-Radley second gravel terrace, between the Thames and Cherwell rivers, the development presented an opportunity to undertake geo-archaeological assessment of the gravels, the proposed double basement across the whole of the site being the closest thing that Oxford is likely to get to a gravel quarry.

<Extent of proposed double basement (OUED Master Plan 2008)>

8.13.5 The site was very heavily built over with limited open space. A small evaluation was undertaken prior to demolition of the extensive NHS buildings with limited results. Post-demolition a ground penetrating radar survey was undertaken on a small part of the site again with poor results, this technique was therefore not pursued across the rest of the site. Subsequently an approximately 6% evaluation sample with a dispersed array of trenches and targeted test pitting of former NHS building footprints was undertaken by Museum of London Archaeology (MoLA) in order to establish the character and extent of any surviving archaeology and assess the level of truncation within from different former building footprints.

8.13.6 The evaluation identified the remains of three heavily truncated ring ditches, the fills of which showed up clearly with their orangey loess fills contrasting with the drab sandy gravel. Sieving of the barrow fills produced limited results, suggesting reasonably sterile fills, a result consistent with observations made at other excavated barrow sites at the University Science Area and Sackler Library. The site also revealed the remains of a *c*.6th-century sunken-featured building and possible associated features near the Walton Street frontage.

8.13.7 With the evaluation complete the University Estates Department requested that the site be excavated prior to the grant of planning permission. The planning archaeologist sought advice from ALGAO colleagues and took the view that 1) The character of the application (double basement) and the results of the evaluation (evidence for significant horizontally and vertically truncated Late Neolithic-Early Bronze Age ring ditches, potential for associated and satellite features and localised 6th-century activity) would result in planning advice for a conditioned approach to recording in the advent of a planning application, and 2) there would be a public benefit to facilitating an open area excavation by a single contractor as opposed to a potentially piecemeal and staggered investigation as each plot within the scheme was brought forward.

<The extent of evaluation trenching (MOLA Post Excavation Assessment)>

8.13.8 An open area excavation of the site was then undertaken which revealed the remains of three substantial ring ditches, one a double ring ditch, and the edge of a fourth ring ditch The ditches were extensively truncated, two segmentally and one by a series of extensive smaller interventions for foundations and services. The ditch fills produced very little in terms of pottery, flint or bone. Two cremations were identified associated with the largest ditch, which ditch formed part of the linear cemetery running eastwards to University Parks. The ring ditch also encircled the truncated remains of a rectilinear Middle Neolithic enclosure, which survived as a V shaped ditch with flattened base. The darker fill of the ditch produced a single calf sacrum which has provided a radio carbon date for the structure.

8.13.9 The zone of potential early Saxon activity on the Walton Street frontage suggested by a Sunken Featured Building identified in the evaluation proved to be disappointing, a small number of early Saxon pits and a possible well were recorded.

<The extent of survival (MOLA Post Excavation Assessment)>
<The context (from MOLA publication draft)> *<MOLA artists impression>*

Key Themes for Significance

- On the basis of the evaluation results the site was assessed as of regional level significance with undemonstrated potential for assets of national significance. The planning archaeologist took the view that the site was not of demonstrable national significance because of the extensive amount of truncation and fragmentation and because of the character and quality of the evaluated features and finds.

- Archaeology survived on the site only as negative features cut into the gravel, with the Late Neolithic-Bronze Age fills being distinctive for their loessic orangey fills. The evaluation identified the anticipated (from documentary records) number of ring ditches and the results could be treated with some confidence because of the distinctive character of the prehistoric features and their fills.
- The level of disturbance meant that the presence or absence of artefacts and ecofacts in the recovered fills would have diminished statistical significance compared to intact ring ditches.
- The potential for a variety of monument types and satellite features in a Neolithic-Bronze Age landscape of this kind could be anticipated from similar nearby examples (notably Barrow Hills, Radley). Nevertheless the evaluation did not demonstrate the presence of such features.
- The site is an example of an asset that clearly contributes to a data set of national interest and had the potential to include nationally significant monument types and finds.
- The subsequent open area excavation focused resources on searching for prehistoric 'landscape' features such as post alignments, possible satellite structures, and burials, bearing in mind the information available from comparable landscapes along the Thames. This was a resource intensive task given the level of truncation and terracing and the myriad of previous features from the use of the plot as a formal garden market garden and NHS hospital grounds.
- A number of indeterminate small features were fully excavated both in the south central part of the site and on the Woodstock frontage, some may have been post alignments but they produced no pottery and were too small for OSL dating, there fills were less distinct than the ring ditches and they may be much later features.
- Part of a Middle Neolithic enclosure was identified by excavation (it was not identified during the evaluation). The enclosure is a rarer and more significant asset type however it was significantly truncated in plan. The remaining perimeter ditch was excavated and produced a single calf sacrum.
- The site provides a date and morphology for a rare type of relationship between and Middle Neolithic Enclosure and Ring ditch and dimensions and relationships of a linear cemetery and its landscape.
- The evaluation also identified a single Early Saxon Sunken Featured Building. The subsequent excavation did not produce further examples of SFBs, burials or other significant early Saxon features
- The site contributes to a corpus of information that addresses regional and potentially national themes in Neolithic and Bronze Age archaeology. With the advantage of post-excavation hind-sight was it nationally significant?

8.14 The Radcliffe Infirmary Burial Ground

Overview

8.14.1 The former Radcliffe Infirmary burial, consecrated in 1770 and closed in 1855, was located within the extensive grounds of the Radcliffe Infirmary, facing the Walton Street frontage. As the grounds were in filled with hospital buildings the burial ground was partially built over. In 1835 part of the burial ground was given to the Commissioners for the Building of New Churches for the construction of the Chapel

of St Paul (now Freud's Bar). An unknown number of burials were removed during the construction of St Paul's, and during the subsequent construction of an Eye Hospital Extension (1921-1939) and further laboratory building (1939–1957) on the burial ground plot.

<Approximate area of burial ground plotted over the 1876 1st Edition OS map (1:500) from MOLA Desk Based Assessment
<Left- The site pre-demolition Right- post demolition trenches. From MOLA report.>

8.14.2 In 2003 the former Radcliffe Infirmary HNS hospital site, including the burial ground plot, was obtained by Oxford University Estates Department with a view to providing a large central block of land for a new centrepiece University Quarter. A Conservation Plan was produced for the site in 2006 (Purcell Miller Tritton). A subsequent Master Plan for the University Radcliffe Observatory Quarter included provision for a double basement stretching from the Woodstock Road to the Walton Street frontage, including the burial ground. The University argued that there were no viable alternative locations for the basement, given 1) capacity requirement, 2) the operational needs of the unified double basement, 3) the intention to have an external service corridor loop running around the perimeter of the site, and 4) the legal restrictions on the only other part of the site that was not to have a basement, the Jericho Health Centre plot.

8.14.3 A desk based assessment for the whole ROQ site was produced in 2008 (MoLA) and a Documentary Research Report for the Burial Ground in 2009 (MoLA). The Oxfordshire Medical Archives, Diocesan Records and County Records Office were researched. The burial register information for the burial ground proved to be largely incomplete. The first recorded internment in November 1771, when Edward Rusbridge was buried. The next available record is a burial register dated from 3rd February 1815 to 23 March 1855, which provides information such as the name and age of the deceased, parish of settlement, date of burial, with some of the later entries providing cause of death. There are a total of 195 burials listed in this register.

8.14.4 An archaeological evaluation of the site was carried out by MoLA between December 2009 and February 2010.Two trial trenches were excavated in order to assess the spatial extent and depth of the burial ground and the density and state of preservation of the burials within it. The evaluation established an eastern limit to the cemetery, consisting of a wall foundation to the south and a robbed out continuation to the north, corresponding well to the position of the boundary marked on historic maps. A total of 36 identifiable burials were recorded and a sample of 14 were fully or partly excavated from the two trenches. Extrapolating from these figures MoLA suggested a preliminary estimate of between 509-835 wholly or partially-complete burials within the remaining cemetery. The MoLA Historic Environment Assessment undertaken after the evaluation assessed that further well-preserved burials would be of 'high significance' (MoLA December 2012).

8.14.5 The planning archaeologist requested that the University Estates Department provide further information on the national rarity and significance of such burial grounds, informal advice was also sought from an academic specialist and formal advice was sought from APABE (The Advisory Panel on Burials in England). In 2010 an addendum to the original Conservation Plan was produced by Purcell Miller Tritton at the request of the planning archaeologist specifically considering the significance of the burial ground. The report drew the following conclusions:

> *'Our provisional conclusion is that not a great deal more can be learnt about the relative significance of the site without a disproportionate amount of additional*

> *research work. There appear to be a large number of survivals of similar burial sites and this does tend to diminish the significance of this particular site. There does not seem to have been any particular value attached to most similar sites as they have been freely developed in the past. There is also a good argument to suggest that any significance of the burial ground is likely to be increased by the excavation of the site when the number of the burials can be more accurately determined and more can be learnt about the medical condition of the burials.'*

8.14.6 Following comments from the planning archaeologist a further report was produced by the University Estates Department (*Radcliffe Observatory Quarter Burial Ground, Heritage Significance Assessment* July 2010). The report argued that national significance could not be demonstrated and that the character, extent and survival of workhouse and hospital cemeteries around the country was not currently well synthesised. It was agreed that such level of synthesis was outside of what could reasonably be requested through the planning process. The report concluded that:

> *'The infirmary burial ground is not scheduled, does not lie within a conservation area and does not contain any listed structures. It does not comply with the established criteria to suggest that it is of national importance or significance and is therefore considered to be of local and possibly regional significance. The infirmary burial ground, although interesting, is representative of similar institutional burial grounds across the country, being generally of similar local and regional significance of those burial grounds.'*

8.14.7 The planning archaeologist provided detailed comments on the submitted document and responded that a more appropriate assessment would be that the burial ground is at least regionally significant and potentially nationally significant.

8.14.8 The Advisory Panel (APABE) provided advice in May 2010 noting that:

> '*Whether it meets criteria for national importance, and hence for preservation in situ, is less clear, and one should recall that the buried remains may deteriorate if soil conditions, hydrology etc are altered as a result of nearby development.'*

8.14.9 For further background information see the Appendix which includes:

- *University Estates Department Significance Assessment July 2010*
- *Notes by Planning Archaeologist on significance*
- *Planning archaeologists comments on research value for a skeletal collection*
- *The Advisory Panel on Burials in England advice.*

8.14.10 Following a meeting with EH, APABE and OUED the planning archaeologist took the view that the burial ground could be assessed as of at least regional archaeological interest but that

> '*at present there is insufficient academic research on such sites at a national level to clearly establish whether the asset is of national significance in terms of archaeological interest. It is therefore not possible to confidently demonstrate that the asset is of equivalent in significance to a Scheduled Ancient Monument and therefore should be treated as a designated heritage asset (NPPF Paragraph 139). As the list of submitted reports demonstrates considerable efforts have been made by the applicant to establish the current state of knowledge on infirmary burial grounds. Further excavation and academic synthesis of such sites (including work house and asylum burial grounds) would be necessary to further clarify this matter which is beyond the scope of what could be reasonably required of the applicant*.'

8.14.11 As no evidence for de-consecration was found and the diocese took the position that a faculty for removal was necessary. The University Estates Department sought permission from the diocese to excavate the site in advance of planning permission under faculty, however this was refused. Subsequently a condition securing full excavation and method statement requiring the University to seek an extension to the faculty deadline for reburial should the excavation results warrant this, was requested. Planning permission was granted and a 2013 excavation of the burial ground by Oxford Archaeology recorded 370 burial units and 345 graves, with some potential for subsequent burials to be excavated in further minor works.

8.14.12 The remains are still the subject of post-excavation assessment. However sufficient information was recovered to encourage a request by the University Research Laboratory to have access to the remains for analysis. Their proposal noted that

> '*It would appear that there is now more documentary evidence available about the origins of the people buried there* [Oxford Archaeology identified that the hospital operation records might be applied to the skeletal remains], *and that the majority of the adult males seem to be relatively local (Upper Thames Valley to West Country). The other somewhat surprising piece of information from a preliminary examination of the skeletons and from our own investigation of the occurrence of human intestinal parasites (of which we have so far found none), is that the individuals buried here appear remarkably free of disease. This assemblage therefore offers a unique opportunity to test some of the assumptions frequently made when determining the ratio of 'local' to 'incomers' in skeletal populations, since it would appear that the majority of these individuals should conform to a local/regional dietary and strontium isotope signal*." (A.M. Pollard and P. Ditchfield)

<The excavation plan showing grave cuts and modern foundations (from the Oxford Archaeology interim report)>

Key Themes for Significance

- The case involves an asset type perhaps previously neglected but now rapidly moving up the national research agenda.
- The applicant's consultant argued that in terms of interest (understanding diet, disease, health outcomes) there are significant numbers of comparable institutions. Whilst this argument was not fully accepted by the planning archaeologist there remained a lack of clarity regarding the survival of comparable remains at a national level and the significance of related research questions (whether these be archaeological, related to public health epidemiology or osteo-anthropological).
- There is a low level of national synthesis about this asset type and limited previous publication of comparable sites.
- The extent of previous dis-internment and disturbance was unclear. No detailed records were available and the burial register was incomplete. No coffin plates were recorded in the evaluation.
- English Heritage SAM criteria and guidelines on Human Bones from Archaeological Sites (2004) were applied (see appendix).
- The view taken was that site had possible but not demonstrable national significance.
- APABE agreed that assessment of significance was 'problematical'.
- Arguably a case of '*we have to dig it up to see if its nationally significant'*.

- Preliminary post-excavation results suggest that the burial assemblage may be of national significant because of 1) the number of burials recovered and the fact it is one of only a relatively small number of sites of this type to be excavated, 2) the good state of preservation, 3) the noted osteoarchaeological interest, 4) the contextual information recovered from hospital operation records, and 5) the potential for isotopic analysis (reflected in the application for further study by the University Research Laboratory).
- This interest is strongly linked to current academic research interests related to application of isotopic techniques. The interest is still potential interest as value depends to some extent whether bodies can be matched to identified records and whether the resulting information is 'nationally' significant given the amount of data available about the period.
- It could be argued that if the burial ground had remained preserved in-situ and other contemporary burial assemblages investigated elsewhere then the value of the site might diminish in the context of a wider corpus of data being developed?
- It we assess the sites interest as being closely tied to being excavated now- what follows in terms of heritage management decision making?

8.15 Nos 4 & 5 Queen Street

Overview

8.15.1 A recent application (autumn 2014) for a new shopping and student accommodation complex located near central crossroads of the historic town raises questions regarding the identification of national significance in such locations. The development utilises existing basement levels on the St Aldates frontage but the submitted design involved lowering and extending basements to cover two full historic tenement plots fronting onto Queen Street. The impacted area would have been central to the *burh*, on the market frontage and on the edge of recorded Jewish occupation.

8.15.2 The importance of Late Saxon urban sites, such as Oxford is recognised by the Thames Solent Research Assessment which notes that the Late Saxon urban remains of the region represent a 'nationally important resource' (Dodd and Crawford 2014: 230). This economic significance of Oxford in the Norman and later medieval period is summarised in the appendix.

8.15.3 In this instance the applicant's consultant assessed the site as of likely local or regional significance by the planning archaeologist took the view that the site had the potential to preserve remains of national significance. A small trench within the basement on No 4 in 1986 demonstrated the survival of Late Saxon metalled surfaces and in-situ medieval street frontage floor sequences up to the 13th century.

8.15.4 Subsequently the basement area was reduced by redesign and the view was taken that the impacted area was now perhaps harder to identify as demonstrably equivalent to a designated asset and a conditioned approach to mitigation was recommended.

<The extent of the lowered basement in the vicinity of Nos 4 and 5 Queen Street in the original application placed over Rev HE Salter's map of tenement plots.

<The extent of the revised basement and a black square showing the extent of the 1986 trench.>

<Sections from the 1986 trial trench showing depth of Late Saxon 'street surfaces' and 13th century floors (from Oxford Before the University, Dodd (ed) 2003)>

Key Themes for Significance

- The site occupies a central location on the historic market frontage near central cross roads and includes elements of plots owned by the medieval Jewish community.
- The proposed basement construction on Queen Street (involving the lowering of existing basements and slight extension beyond these) covered approx. 22 x 26m.
- Previous investigation at No 4 Queen Street demonstrated presence of Late Saxon metalled street surface (or yard, market space or marshalling area) up to 13th-century remains, including floors of medieval street (and market) frontage structures.
- Primary burghal activity and Late Saxon Cellar pit forms might be anticipated in this location.
- The Regional resource assessment identifies Late Saxon Urban remains in regional towns as a nationally important resource. On the basis of documentary economic indicators the town was placed in the top ten in terms of wealth in the 12th-13th century. The town as an asset can be assessed as nationally significant for its medieval remains (strongly enhanced by detailed and well synthesised documentary coverage).
- The centre of town is well excavated but little work has been undertaken on the central crossroads since the 1980s and the detail of older published reports is variable.
- The applicants redesign the basement post submission to protect the frontage deposits and limit excavation to the rear of the tenements.
- There is a general question to be resolved – if an urban settlement can be assessed as nationally significant how should piecemeal development be assessed? Also how might the issue of cumulative impact be dealt with?

8.16 Views of locally based professionals

8.16.1 Specialist staff at OA were contacted and asked whether, based on their knowledge of the City, there had been any excavations which had discovered assemblages of national important based on their specialism.

8.16.2 *Human bone:* From a human burials perspective the burials at the Radcliffe Infirmary and the skeletons from Oxford castle were put forward by Dr. Louise Loe (OA human burial specialist). Those from the Radcliffe Infirmary represent the largest excavated hospital assemblage from the country, they are rare in having extensive documentary evidence, they are from one of the earliest and longest-used hospitals to be established outside London, and Oxford is home to one of the earliest medical schools in Britain. Those from the castle are nationally important as they are amongst the earliest examples of anatomisation from the country, plus a rare, if not unique burial type site (ie a prison). The massacred skeletons from St Johns College were also put forward as being particularly significant.

8.16.3 *Animal bone:* For animal bone assemblages, the kitchen deposits from Queen's College and 4a Merton Street (Merton College) were suggested, as they are amongst the few archaeological deposits directly related to medieval university/college diet and are of national if not international importance (Lena Strid, OA archaeozoologist).

8.16.4 *Roman Pottery:* Paul Booth (OA Roman specialist) stated that any Roman pottery production-related site found within the city would almost certainly count as nationally important. On present evidence, however, such sites have only been found in the eastern part of Oxford, with no known examples from west of the Cherwell.

8.16.5 *Environmental:* Rebecca Nicholson (OA environmental manager) could not identify any recovered environmental assemblages which would fit this category.

8.16.6 *Small Finds:* Neither Leigh Allen (OA Archaeological finds manager) nor Ian Scott (OA post-medieval finds specialist) could identify any recovered assemblages which would fit this category.

8.17 Conclusion

8.17.1 This survey and assessment of sites and themes has shown that sites and themes of national importance can be recognised, assessed and defined. While some are specific monuments whose physical presence can be closely defined, others are areas (that may be defined) but in which the presence or survival of significant archaeological deposits cannot be assured. Some depend more on general themes or topics that can neither be defined physically or perhaps even predicted. Some consideration of these is given in the following section.

9 REVIEW OF FURTHER CASE STUDIES OF UNDEVELOPED SITES AND APPLICATION OF SAM CRITERIA [TASK 3]

9.1 Introduction

9.1.1 As part of the work on the Oxford Archaeological Plan undertaken in 2012 a rapid appraisal of a number of important assets was carried out using the SAM principles of selection. The list of assets is not exhaustive and the process was intended to draw together data on important assets that had not been assessed by the Monument Protect Programme. The scoring range allowed for categorisation of High/Medium/Low interest, but given the nature of the assets the low value assessments are generally a function of lack of data/location information rather than reflecting a fully resolved assessment based on a deposit model. The list highlights the number of mendicant friaries and historic colleges that can be assessed as of high archaeological value in their own right, irrespective of the wider interest of the historic town and their role within it.

Table 9.1 Assessment of important assets

Monument Complex	***Assessment of Interest***
TheWolvercote Channel	High
The University Parks Barrow Cemetery	High
The Oxford Roman Pottery Industry (East Oxford only)	High
The Saxon and Medieval Town	High
St Frideswide's Priory	High
Hospital of St Bartlemas	High
Hospital of St John	Medium-High
Littlemore Priory	Medium
Black Friars 1st Site	Low-uncertain
Black Friars 2nd Site	High
White Friars 1st Site	Medium
White Friars 2nd Site	High
Austin Friars	Medium
Crutched Friars	Low-uncertain
Friars of the Sack	Low-uncertain
Trinitarian Friary	Low-uncertain
Canterbury College	Medium
Magdalen College	High
Merton College	High
New College	High
Oriel College	High
University College	High
The Queen's College	High
Wadham College	High
Pembroke College	High
Jesus College	High
St Edmund Hall	High
Grey Friars	High
Christ Church	High
Worcester (Gloucester) College	High
Balliol College	Medium

Monument Complex	***Assessment of Interest***
Christ Church (Cardinal College)	High
Hartford College (Hart Hall)	High
Trinity (Durham) College	High
St John's (St Bernard's) College	High
St Mary's College	Medium
All Souls College	High
Brasenose College	High
Corpus Christi College	High
Exeter College	High
Lincoln College	High

9.1.2 This section considers Oxford Case studies of potentially nationally significant archaeological assets, looking specifically at planning history and key themes using the following examples:

- The Westgate Centre development – the Franciscan *Studium Generale* [§9.2]
- The University Parks linear barrow cemetery [§9.3]
- The Saxon and medieval town defences [§9.4]
- The Old Abingdon Road Norman causeway [§9.5]
- Islands of survival- Peckwater Quad [§9.6].

9.2 The Westgate Centre Development - Assessing a Franciscan *Studium Generale*

Overview

9.2.1 The 13th-16th-century Franciscan Friary in Oxford functioned as a pan-European college or *Studium Generale* for the order, was closely linked to the development of the medieval University at Oxford and is associated with a number of important historic figures linked with the development of higher education and science including Robert Grosseteste, Roger Bacon and William of Ockham. The friary was subject to extensive excavations in the late 1960s-early 1970s prior to the building of the current Westgate Shopping Centre. The centre was constructed with a service basement that removed most of the friary church and the northern intra-mural precinct, with the exception a small area of the masonry from the choir of the church which is preserved within a modern cellar. To the south of the church a multi-storey car park was built over much of the southern ranges and cloister. The central part of the cloister is located under a link road which has a number of substantial service trenches below it. To the south and south-west of the multi-storey car park are two large surface car parks located over the in-filled Holocene channel that became the Trill Mill Stream and nearby gravel islands within the Thames floodplain

9.2.2 The extent of the Franciscan precinct can be broadly if not exactly defined to the north by the former Church Street, to the east by Littlegate Street, to the south by the in-filled Trill Mill Channel and to the west by an excavated wall, although the friary is known to have acquired a large garden known as 'Paradise' to the west of this wall and also obtained ownership of an island within the braided channels of the Thames, south of the Trill Mill Stream.

9.2.3 In 2006 an application was submitted to the City Council for the demolition of the existing shopping centre and multi-storey car park and for the construction of a new centre involving extensive basements across the area occupied by the multi-storey and surface car park. The requirement for basement car parking was driven by car highways, capacity and viability issues and also by flood alleviation requirements.

9.2.4 The applicant's Environmental Statement argued that the remaining friary remains were of 'regional importance'. The planning archaeologist argued in the council's planning statement that the site may preserve remains '*potentially with evidence of national or even international importance relating to medieval science'* also that '*the likely expense in both time and cost of full excavation implied by provisional results may be unsustainable and potentially a cause for failure to undertake the full commitment'*. (06/01211/FUL Planning Statement paragraphs 7.29 and 7.30). The scheme was consented with a detailed archaeological condition for recording, outreach and publication. Two phases of trial trenching were then undertaken (one was commenced before full determination) within the multi-storey and surface car parks. The consented scheme was subsequently not taken forward. In 2010 the 2006 scheme was granted an extension.

9.2.5 Subsequently in 2013-14 a new developer brought forward a new scheme, again with extensive basements for car parking, but this time the bulk of the remaining southern friary ranges north of the Trill Mill Stream were to be impacted by a four story shopping centre block without a basement. In the Environmental Statement the applicant's consultants argued that the site was again of 'regional importance', but following discussions with the planning archaeologist later accepted that the friary could be assessed as nationally significant. The assessment of remains by the planning archaeologist integrated advice from academic specialists and previous excavators of friary precincts in Oxford and also made use of information available in the Bodleian Library. The assessment followed the DCMS principles of selection but also highlighted the exceptional historic interest of the site.

9.2.6 The applicant submitted additional information assessing significance in the form of an addendum to the Environmental Statement, providing a detailed truncation plan, looking at re-use and minimal piling options and setting out a case for exceptional public benefit to weigh against the accepted substantial harm to a nationally significant asset. The council accepted this argument and consented the scheme in 2013, a revitalised Westgate Centre being a key component of the council's strategic plan for a revived west end and for the on-going physical and economic expansion of the city.

9.2.7 A number of documents examine the significance of the friary, these have been placed in Appendix A:

Appendix A1: The Consultants' original Environmental Statement submission setting out their case for regional significance

Appendix A2: The planning archaeologist's assessment using current Scheduled Ancient Monument assessment criteria

Appendix A3: The revised consultant statement from Environmental Statement addendum

Appendix A4: The assessment of reuse of piles, review of foundation design and English Heritage comments

Appendix A5: The public benefit case- NPPF Paragraph 133 Statement.

Key themes for significance

- A combination of a detailed 'truncation model ' in plan form (comprising existing foundation design, previous archaeological excavation plans, service plans and working model of the friary layout) and evidence from field evaluation enabled the use of the DCMS principles of selection criteria to produce a robust assessment of significance.
- Despite 1) the extent of previous truncation from various developments and archaeological excavations and 2) the largely robbed out character of the friary

foundations, the site was considered to have both a high level of historic interest (being linked to the development of scientific study and being a European centre of Franciscan learning) and demonstrable archaeological survival of key asset features.

- The phased evaluations demonstrated that the remains had further potential to preserve information about 1) the friary plan and its evolution (for example the friary is documented as having a second library and may have had a second cloister) 2) diet and food supply (with localised floor survival, recorded midden deposits and localised waterlogged remains noted by evaluation) 3) relative affluence, artistic and cultural influences, material culture related to science and learning, architectural details (from recovery of ceramics, glass and stone in demolition layers and rubbish pits) 4) a range of additional assets including water management features (a water conduit, the in-filled Trill Mill Channel and a possible mill structure). The site also had the potential to preserve information regarding the town's defences and patterns of pre friary and post-Dissolution land-use, and there remains potential for burials to be located within the cloister/s.
- The online *Monument Class Descriptions* and a number of publications on friaries were referred to on order to inform the assessment. The recently-published *Scheduling Selection Guides* of English Heritage were consulted (both for 'Educational' and 'Post-410 Religious Sites'). There was no national medieval research agenda to refer to, and perhaps it would be unlikely that such an agenda would be detailed enough to address the issue of *Studia Generalia*. The regional Solent Thames Research Agenda expresses interest in friary sites in very general terms. Specialist academic and sector advice was sought to clarify the arguments regarding the site's significance and French colleagues were asked for information regarding a comparable site in Paris.
- The exceptional nature of the site and the level of documentation and evaluation clearly made it easier to assess than perhaps might be the case for other friary sites. The planning archaeologist also benefited from the long pre-application build-up which allowed time to access high quality local libraries and contact other specialists.
- 'Substantial harm' was assessed on the basis of the full removal by basement of the bottom third of the surviving friary layout (as projected) and on a judgement that the insertion of a new piling array over the existing one would lead to an unacceptable level of fragmentation (over the remaining two thirds).
- The applicant accepted that the asset was of national significance and that 'substantial harm' would result from the development, and submitted a case for public benefit of the development that was accepted by the council.

9.3 The University Parks linear barrow cemetery

Overview

9.3.1 The presence of features of interest within the area of the University Parks was first suggested by Dr Robert Plot, the first keeper of the Ashmolean Museum, in the 17th century. Subsequently, aerial photography of the park has allowed for more accurate identification of these features which were clearly captured in the dry summer of 1976 and interpreted by Tom Hassall as a likely linear barrow cemetery and other rural settlement features of Iron Age and Roman date. More recently a geophysical survey commissioned by Oxford University Estates Department has confirmed the presence of four barrows in a linear alignment (Fig. 9.1). The survey improves on the previous aerial photographic evidence for this monument complex and follows the

2009 Radcliffe Infirmary excavation which examined barrows belonging to the western end of the linear cemetery (Fig. 9.2), thus both increasing the significance of the surviving barrows and providing information on the likely character of remains preserved within the University Parks.

9.3.2 The barrows form part of the Oxford Neolithic-Bronze Age monument complex which is one of a sequence of similar landscapes located on gravel terraces close to river confluences along the Upper Thames Valley. Within these monument complexes linear cemeteries form a subclass of barrow groups. In addition to a wide variety of barrow clusters and arrangements, four distinct linear cemeteries are recorded along the Upper Thames in Oxfordshire and on the border with Berkshire, including the University Parks cemetery. Of these the cemeteries at Radley and Standlake have been removed by quarrying and the extant earthworks at Seven Barrows, Lambourn, Berks, are scheduled. At county level there are 36 barrow cemeteries of different sizes and forms recorded on the Historic Environment Record. Of these, 12 are designated as Scheduled Ancient Monuments.

Fig 9.1: 2011 geophysical survey of University Parks (Courtesy of Cotswold Archaeology)

Key themes and observations for significance

- The remains of the linear cemetery within the park grassland represent an island of survival within the wider urban landscape. The removal of the monument complexes south and west of Oxford (Radley and Standlake) by quarrying increases the significance of this landscape for understanding the development of the Neolithic and Bronze Age in the Upper Thames Valley. The potential for the existence of Middle Neolithic antecedents in the landscape and the group value of the known and excavated barrows and henge from the surrounding complex all serve to enhance the archaeological interest of this site.
- The recent Radcliffe Infirmary (Radcliffe Observatory Quarter) excavation has resulted in the total removal of three Bronze Age barrows from the linear cemetery complex, along with the remains of a Middle Neolithic enclosure located beneath one of these barrows. The excavation demonstrated the likely character of buried remains within and around the barrows, recording the presence of satellite burials, postholes and pit alignments. The Middle Neolithic

rectangular enclosure is likely to be a mortuary enclosure and is currently the earliest known component of the wider monument complex. The monumental landscape under north Oxford can now be demonstrated to have been active between c.3600 BC and 1800 BC.

- The University Parks barrows have not been subject to the same level of truncation as the Radcliffe Infirmary barrows and represent a more intact and coherent area of survival.
- Although the barrows have not been subject to intrusive excavation they are well-identified from aerial photographs and geophysical survey. Furthermore the character of likely remains and time depth of the complex can be inferred from the results of the ROQ site excavations (above) and the excavation at Barrow Hills at nearby Radley.
- However, unlike the ROQ site the Parks barrows are overlaid with a sequence of likely Iron Age and Roman rural settlement field systems and enclosures which makes precise definition of the contextual (contemporary) landscape around the barrows problematical. The definition of a 'nationally significant' landscape zone is therefore more difficult.
- One approach would be to simply place a box around the linear barrows with a small buffer as the definable area of significance. An alternative option would be to treat the island of survival presented by the Parks as a coherent multi-period whole. There is an established tradition of including contextual spaces in Scheduled Areas around assets, although it is not always a straightforward matter. To designate the whole park would effectively mean ascribing national significance to Iron Age and Roman features that are arguably not nationally significant, unless one excluded them from the SAM designation.
- The possible outcome being discussed with the OUED is the production of a management plan that recognises the national interest of the linear cemetery and its less well defined landscape and seeks to provide long term stewardship to the multi-period remains across the park.

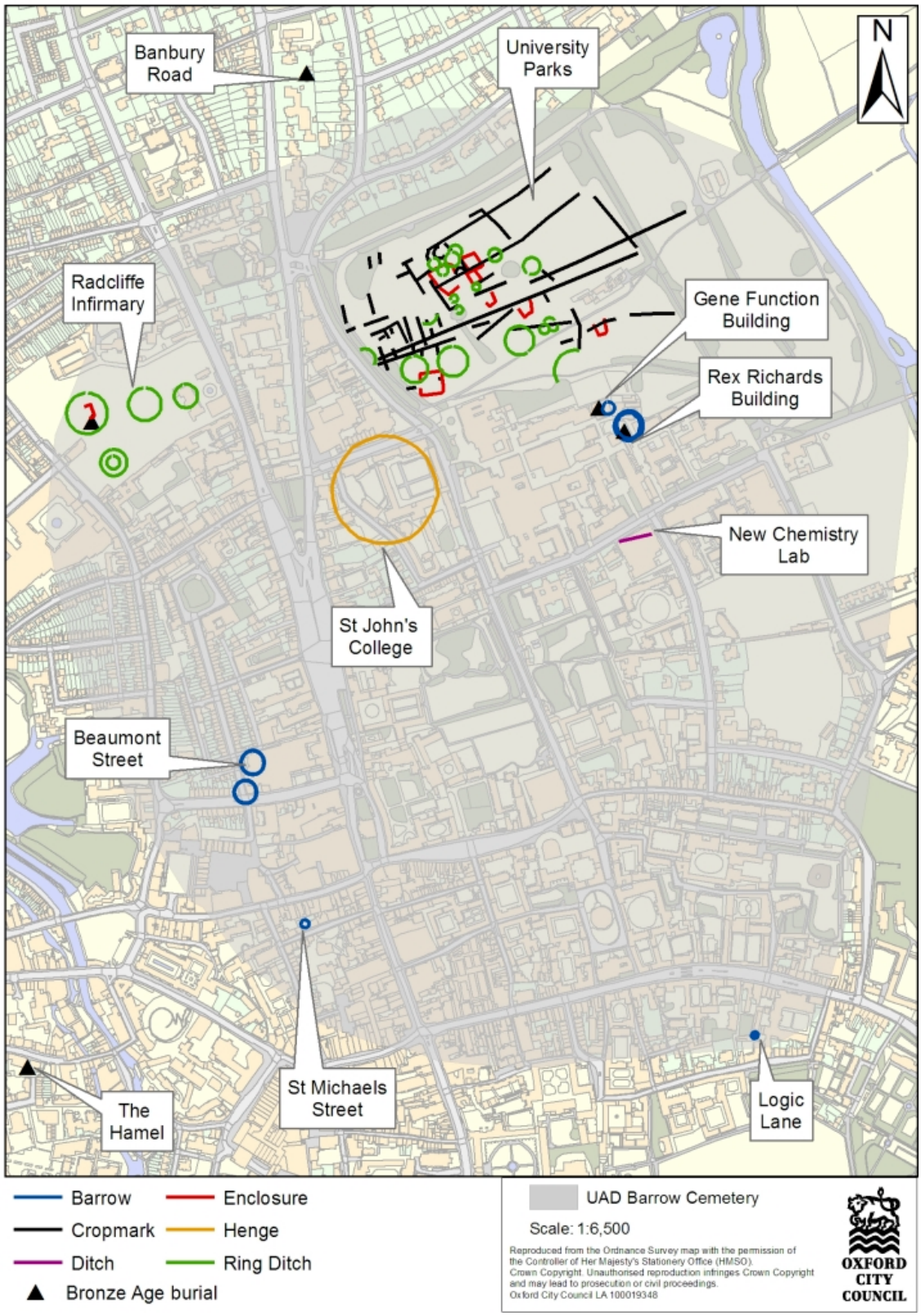

Fig 9.2: Overview of Neolithic-Bronze Age Landscape on the southern part of the Oxford Summertown- Radley Gravel terrace.

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9.4 The Saxon and medieval town defences

9.4.1 The sequence of *burh* and town defences around Oxford can clearly be identified as nationally significant because of the contribution that surviving assets can make to our understanding of the urban defences from the late Saxon period onward and because of the long and complex associative and illustrative historical value of each element. Nevertheless at present only parts of the medieval town wall circuit and the Castle precinct are scheduled. The buried remains of the Late Saxon *burh* ramparts, the section of Late Saxon ditch surviving within the graveyard of St Michael at the Northgate, the hypothesised primary north-south defences of the *burh*, the Norman extension to the circuit at St Michael at the Northgate, the infilled medieval town ditch, parts of the 13th century town wall and the late 13th century outer wall and its bastions are not scheduled. These assets can be identified as nationally significance both as individual assets and as an associated asset group.

The medieval town ditch

9.4.2 The medieval town ditch is known to have stretched from the Castle defences eastwards as far as East Gate. Its line has not been identified south of the East Gate. It may be that existing natural defences were considered sufficient around the southern perimeter. The available evidence suggests that the medieval town ditch varied in width and was subject to a currently poorly understood sequence of re-cutting in the medieval and post-medieval periods. Previous investigations have demonstrated the potential for early deposits in the base of the ditch to have survived later re-cuttings (Durham et al. 1983, 24). The medieval town ditch appears to have been at least partially water-filled and may have served as a fish pond or series of fish ponds during parts of the Middle Ages. The ditch is believed to have been at least partially re-cut during the Royalist re-defence of Oxford in the 1640s and subsequently rapidly in-filled *c*.1651 and then partially developed in the late 17th century with houses and gardens established fronting onto Holywell Street and Broad Street.

9.4.3 The town ditch as a whole can be assessed as a nationally significant asset because of the potential for it to preserve information about the evolution of the town's defences and because of its association with both adjacent defensive structures and the town's rich and complex history.

The medieval outer town wall

9.4.4 The buried masonry of the likely late 13th century outer town wall, which has only been physically encountered at Hertford College and at the former Morris Garage site (New College), is believed to have run from the former Smithgate to the former East Gate, and comprised a broad zone outside the main wall of rampart/path, wall and outer ditch. The north-south line parallel with Longwall Street is not proven but is referenced in a medieval document (Durham et al. 1983, 38, note 71). The outer wall is not scheduled but can be assessed as nationally significant. It is exceptional as the only example of a concentric defensive wall recorded in an urban context in England, where concentric fortifications are only found in castles. The purpose of the wall and the reasons for its construction along only part of the existing walled circuit are uncertain, but it is probable that the use of Longwall and Holywell Streets as a 'bypass' round the walled town (e.g. for royal visitors to Beaumont Palace) made this section of wall the most prominent and visible.

The town defences as a group

9.4.5 The town defences form a coherent group of associated and sequential assets which comprise 1) the Late Saxon *burh* ditch, 2) the Late Saxon rampart (the buried remains

of which survive to a height of approximately 1m to the rear of the inner medieval wall at New College), 3) the medieval town ditch, 4) Late Saxon/Norman improvements to the town wall (poorly understood) 5) the 13th century town wall and bastions, 6) the later 13th century outer wall and bastions, 7) rebuilding work to secure the perimeter of New College and likely similar works elsewhere 8) the Royalist re-cutting of the town ditch (and potentially other works) related to the re-defence of Oxford when it was the temporary capital of Charles I.

Figs 9.3-4: The projected medieval town ditch shown on an aerial photograph and plotted on a cellar survey

Key themes and observations for significance

- The various components of the Late Saxon defences can be identified as nationally significant assets, the challenge is to assess the applications that are impacting on these assets in terms of cumulative impact and whether they will result in substantial or less than substantial harm.
- There is perhaps some debate about the value of the medieval ditch which was likely recut and filled in during the 17th century. However 1) there is demonstrable potential for Late Saxon and medieval remains to have survived later impacts at the base and lip of the ditch plus potential for waterlogged conditions in certain location 2) the 17th century recut was undertaken as part of the Royalist re-defence of the city as the capital of Charles I and is therefore of interest itself 3) the 17th century material used to fill the ditch is also of some interest.
- A recent pre-application submission for a development site on the line of the ditch was assessed as constituting harm to a non-designated nationally significant asset.
- An assessment of the rapid cellar survey undertaken by Oxford Archaeology for the launch of the UAD in 2002 suggests that the most coherent section of surviving ditch is located within the grounds of New College.

9.5 The Abingdon Road /Grandpont Norman Causeway

Overview

9.5.1 The former Abingdon Road in Oxford is a secondary road that crossing over a railway bridge and a series of culverts and traverses the Oxford floodplain east to west. It follows the route of a historic river crossing. Fabric within the stone culverts along the road has been identified as of likely Norman date and these culverts have been recently scheduled (2013). It is also likely that stone causeway linked these bridges and that this survive below the road in a similar fashion to the stone Grandpont Causeway that is located under the Abingdon Road to the north and is scheduled an a contiguous linear asset.

9.5.2 Anglo-Saxon charters (the bounds of Kennington and Hinksey) refer to the existence of at least two fords in the South Hinksey area, *Meagthe Ford* or Mayweed and *Stan Ford*. These fords provided a route or 'Hay Way' across the various eyots of the Thames floodplain south of Oxford. The name *Stan Ford*, suggests a stone construction for one of these crossings (Blair, 1994, 87). These fords form part of the evidence suggesting that the original 'Oxenford' may have been located south of the later town, on the route of a possible Middle Saxon causeway over the Thames floodplain, perhaps of Roman origin (Blair 1994).

9.5.3 A New College Map dating to the 16th-17th century shows a continuous causeway along the Old Abingdon Road with a series of arches rather than individual bridges depicted. In this respect it is similar to the scheduled Grandpont Causeway to the north was has proved by investigation to be a continuous stone built causeway with more than 30 arches.

9.5.4 To the north of the Old Abingdon Road at the Thames crossing, south of St Aldates, investigations have produced evidence for a possible prehistoric ford and for an Anglo Saxon stone ford near Folly Bridge ((Dodd, 2003, 10-16). This route across the Thames is likely to form a branch of a long established north-south routeway axis running across the Oxford 2nd gravel terrace towards the midlands (along the Woodstock and Banbury Roads). The Latin term *pons magnum* is used in three

places in the Chronicle of Abingdon Abbey, is presumed to refer to the presence of a stone causeway south of Oxford. By implication this is presumed to be a new construction and was important to the abbey, which credited it to a Norman lord Robert D'Oilly who died in 1091-2. To date there is no evidence that D'Oilly simply improved an existing stone causeway, it is assumed that he undertook the causeway as a major enterprise. A mitre headed arch recorded along the Abingdon road is thought to be the work of Anglo-Saxon mason although perhaps one working for a Norman paymaster.

9.5.5 The evidence from the Thames Crossing south of the city is summarized by Brian Durham (1984), who notes in a subsequent article for *Medieval History* magazine in 2004 that "*the big question is why Oxford merited this 'great bridge', and perhaps the answer is that all-season crossings of the Thames were few and far between. The Grandpont would have been constructed about 80 years earlier than London Bridge and the bridge at Avignon, at a time when most major river crossing were perhaps of timber, and hence rotted quite quickly. This was a structure meant to last, with perhaps 6000 cubic metres of mortared stonework, the thirty arches being so well-spaced that the failure of one was unlikely to bring down its neighbors. And it was potentially wide enough for two-way traffic. Perhaps the secret was the availability of very tough Coral Rag field stone close by, without the need to open quarries. But to have built Oxford castle and also a bridge like this in twenty five years is a huge tribute to Norman feudalism, replacing the English system whereby each householder was responsible for a contribution in kind*".

9.5.6 Based on the available information on the medieval fabric observed in the Redbridge Culverts (and by comparison with the character of the previously investigated Grandpont Causeway to the north) there is an anticipated 2m of made ground above the possible causeway fabric at the Stanford East Culvert and adjacent to it. A radar survey at Old Abingdon Road in 2008 produced only limited and inconclusive results.

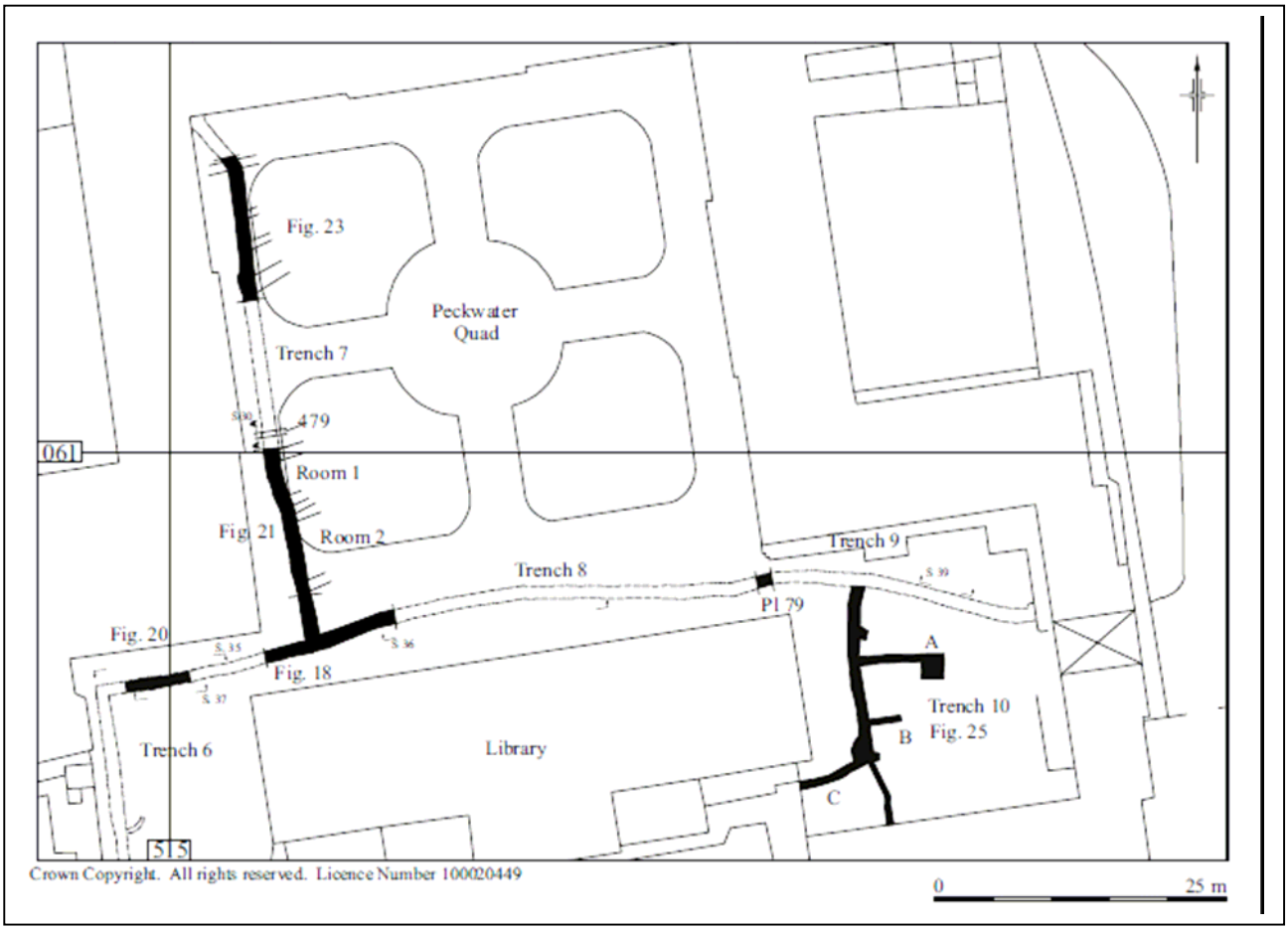
Key themes and observation for significance

- Despite the comparative information from the nearby Grandpont section of the causeway which is scheduled as a coherent linear asset English Heritage took the view that the land between the observable Norman stonework on Old Abingdon Road would not be included within the scheduling.
- The presence of in-situ causeway cannot be easily demonstrated without trenching in the highway. Nevertheless a good case can be made for the presence of such fabric and for the national significance of such a causeway at present.
- The asset faces a number of potential development threats, including the proposed Western Conveyance Flood Alleviation Channel.

9.6 Islands of survival - Peckwater Quad

9.6.1 It has been suggested that if Oxford were demolished to ground level and grassed over that it would be a strong candidate for scheduling. Within such a landscape the areas of quadrangle, gardens and yards that have been, to varying degrees, protected from development since the medieval or post-medieval period represent areas of greater coherence and survival within the wider urban landscape. Often these spaces are very clearly defined by large monumental buildings with basements. They therefore represent distinctive types of spaces where earlier roads and tenements have been preserved in a 'cookie cutter' fashion. However a general assessment of significance for these spaces is complicated by the often poor level of documentation

or alternatively the lack of synthesis of copious documentation for activities within the quads (whether services, attenuation tanks, forgotten cellars, or wholesale ground lowering or raising). Often these spaces have not been subject to a sufficient level of modern intrusive investigation in order to establish the character, extent and quality of below ground archaeological remains. One clear exception would be Peckwater Quadrangle at Christ Church where a long linear IT trench provided an opportunity to discover the 'secrets of the quad'.



Figs 9.5: Archaeological features encountered in Peckwater and Canterbury Quads in Christ Church [courtesy John Moore Heritage Services]

Overview

9.6.2 Occasionally between October 2005 and January 2007 ground-works for the installation of new services at Christ Church were the subject of an archaeological watching brief by John Moore Heritage Services. These new services were installed in narrow trenches dug in Tom Quad, through Fell Tower to Peckwater and Canterbury Quads. Important evidence was recovered regarding the structure and layout of medieval buildings and streets pre-dating the foundation of Christ Church. These have now been fully described in a published report (Chadwick et al. 2012).

9.6.3 Remains of metalled surfaces belonging to St Frideswide's Lane, Shitebarne Lane, Jury Lane and Vine Street/St Edward's Street were recorded, along with traces of the structures fronting or backing onto these thoroughfares. Remnants of large well-built stone structures were identified that may have formed part of Cokewald Hall, Burnell's Inn, Leberd Hall and the inn known as The Pike or The Dolphin.

9.6.4 The remains observed included those of two large buildings demolished fronting onto

Vine Street may have represented Vine Hall and Glasen Hall, whilst a garderobe associated with Vine Hall was found to contain a unique assemblage of 14th century ceramic and glass vessels and clay furnace fragments associated with metallurgical, chemical and/or alchemical experimentation. This is one of the earliest and most important groups of such objects ever excavated in Britain. This same garderobe feature also contained fragments of some extremely rare, imported medieval high-status glass tableware vessels (JMHS 2012). The IT trench identified that the 14th century buildings below Peckwater Quad survived three or four courses above floor level and that in situ floors, door frames and plastered interior walls were preserved below the grassed and paved quadrangle.

Key themes for significance

- The IT trench provides a good 'evaluation' sample of the quadrangle suggesting good levels of preservation with in situ street surfaces, floors, walls and garderobe deposits.
- The character of the asset (a 13th-14th century urban landscape with further potential for assets of early periods) is broadly rectilinear (street grids and tenements) and predictable (with reference to H.E. Salter's *Map of Mediaeval Oxford* as a guide).
- The IT trench has produced information of national significance (ceramic and glass alembics, thought to be the earliest assemblage of its kind yet recovered in England).
- The find represents the potential to find the exceptional amongst the mundane in a city like Oxford, with its links to international scholarship from the 13th century onwards. The documentary evidence for the tenement where the assemblage was found provides no obvious links to potential users of such equipment.
- The landscape of survival extends across the grounds of the college and the basements of surrounding monumental buildings may also preserve more truncated remains, nevertheless the monumental buildings around the quadrangle provide a means of defining a coherent 'island of survival'.

9.7 The application of Scheduling Selection Guides

9.7.1 The English Heritage selection guides are a very useful resource but inevitably have been designed to be both broad in scope and succinct in detail. With regard to the instances considered above, relevant parts of the guides are now considered.

9.7.2 For assessing the prehistoric funerary landscape the *Commemorative and Funerary* (2012) is of relevance. The section on 'Specific Considerations when considering Commemorative and Funerary Sites for Designation" usefully provides guidance on the relevance of Regional diversity:

> *'Care must be taken to ensure that regional variations in type are captured when taking decisions about designation, and in areas where site and monument types are relatively rare a more permissive designation approach should be adopted.'*

9.7.3 And Geological considerations:

> *'Even for the most common forms of monument, such as round barrows, there can be considerable variation in construction, size and character which in part may reflect the underlying geology in the area in which they have been*

> *constructed, but which may also reflect genuine differences in chronology or burial practice.[…] Due allowance should be made for this variation, in order that examples from all areas are identified, and for the likelihood of survival.'*

9.7.4 Furthermore the 'Designation consideration considerations by period: Prehistoric' provides a broad steer on the value of barrow groups, although it does not discuss 'linear cemeteries' specifically as a subset of the asset type:

> *'Where a barrow forms part of a wider grouping or cemetery, its significance will be considerably enhanced. In the areas between and around barrows excavation has demonstrated the presence of further flat inhumation and cremation burials, and the survival of other mortuary structures such as pyres. Where barrows are closely grouped, therefore, consideration should be given to the incorporation of these areas in the designation.'*

9.7.5 The document also provides specific advice for 'round barrows' although this places the emphasis on above ground survival although it notes that :

> *'Other considerations needing to be assessed are clustering, and round barrows' relationship with other monuments (not necessarily contemporary ones). In both cases group value will be likely to add to the interest of an individual monument.'*

9.7.6 Similarly when applied to a specific asset such as an Oxford College or friary the guides provided broad supporting information and guidance rather than a decisive steer. For example assessing below ground remains related to a medieval Oxford College or a Franciscan Friary and *Studium Generale* would lead you to consult the *Places of Learning* (2012) and *Ritual post-AD410* (2012) documents. Unsurprisingly the specific assets are not referenced in either because they are rather specialist institutions (endowed University colleges and *Studium Generale*) that are subsets of the asset types considered (medieval places of learning and religious institutions).

9.7.7 In the Places of learning guide Oxford and Cambridge are briefly referenced within the historical summary and the 'designation considerations' section for medieval assets provide some useful guidance relevant to both colleges and the Franciscan *Studium Generale* (which had an educational function) noting that:

- *Period:* sites [..] predating the Reformation and subsequent flourishing of school foundations in the mid sixteenth century are likely to be of particular rarity and interest.
- *Survival/Condition:* the potential of remains, both above and below ground, to yield information (say about a school's layout) beyond what is already known is an important factor in assessment.
- *Documentation:* establishments which are well-documented, especially those which possess archival material (including modern analyses) which helps explain how buildings functioned, are likely to have a claim to greater significance.
- *Group Value:* as outlined above, educational sites often stood close to churches, or almshouses or other charitable foundations. Where these survive, either as standing structures or as known archaeological sites, their independent and collective significances are strengthened.

9.7.8 The *Ritual post-AD410* guide provides a useful quantification of the number of known friaries in England by religious order and under 'designation considerations' provides guidance on 'Minsters, monasteries and similar religious communities in urban locations' however this is rather broad in scope:

> *'Religious sites of this type have often been subsumed by later development, making assessment difficult and designation more complex. Some sites known from documentary sources or surviving place-name references are located only approximately. Where there are substantial remains (for example at the Blackfriars of Gloucester) these will be reckoned of national importance. Elsewhere, a careful assessment will be made to determine a site's extent and survival before scheduling is considered. Given their urban nature, however, management through the planning process may be more appropriate than designation in some cases.'*

9.7.9 Clearly the selection guides do provide a useful starting point for assessment of national importance.

9.8 Summary and conclusion

9.8.1 These examples underline the value that could be gained from having sites whose special archaeological potential was recognised, without necessarily going to the lengths of having them scheduled.

9.8.2 Neither in the case of the Westgate nor the University Parks would scheduling necessarily be the most helpful way of managing the sites, but in both instances the recognition of special significance has been shown to be useful.

9.8.3 With the City Walls and defences, a revision of the very old and inadequate scheduling would be beneficial, while at the same time the ability to designate wider areas of importance would be valuable as a practical tool for management (and e.g. could be a more effective way of preserving areas of the Civil War defences).

9.8.4 The same goes for the Oxford colleges with rich deposits of unknown extent and quality, where scheduling would not be a practical manner of protecting their undoubted interest and importance.

9.8.5 Consideration of the English Heritage selection guides has been shown to provide a useful component of the assessment.

PART IV – DISCUSSION AND CONCLUSIONS

10 SUMMARISE ISSUES FOR IDENTIFYING NATIONAL IMPORTANCE [TASKS 4 & 5]

10.1 Introduction – Task 4

10.1.1 This section turns from specific sites and areas to consider the assessment of National Importance for well-preserved components that may have a wide distribution across the town, and of components, themes and topics that may have a poor level of spatial recognition.

10.1.2 ***Task 4*** considers the issues around more problematic applications of National Importance relating to more well-preserved archaeological components:

- Well-preserved urban street frontage deposits
- Well-preserved tenement deposits – especially those related to the evolution of academic halls or specialist activity.

10.1.3 This is considered a key issue for developing a more informed response to current development pressure in the centre of the historic town.

10.2 Summary of Issues for street frontages

10.2.1 A summary of issues around the application of national importance to deposits of well-preserved street frontages:

- Historical and topographical indications may be suggestive of the locations of street frontages, either below modern street frontages or occasionally on sites now within institutions or their gardens.
- Without a detailed cellar survey it can be difficult to quantify the level of survival, and therefore the extent of the asset.
- The indicative walk-over cellar survey points to extensive truncation along the principal street frontages and the working assumption would be that well-preserved street frontage remains are likely to be rare.
- However, destruction beneath cellars cannot always be assumed, and in some isolated basements investigations have characterised deposits in situ, and these can be identified as high value areas.
- Some cellars are higher than others, in the main one might anticipate shallow Late-Saxon stratigraphy and negative features to survive, however higher cellars have been shown to preserve pockets of 12th-13th street frontage remains (in situ floors).
- As the town is located on a gravel terrace waterlogging not an issue for most of the principal street frontages, however there is potential for such deposits in the extra mural part of the High Street (formerly Bridge Street) close to the Cherwell. Also waterlogged remains can be anticipated along the extra mural street frontage at the southern end of St Aldates, and potentially in suburbs like St Thomas that had ditches and watercourses running through them.
- The street frontages can be zoned in various ways, the market frontage along Cornmarket, Queen Street, High Street and St Aldates; also using documentary evidence for commercial, industrial, clerical or educational activity; also an assumption that ‘dirty’ trades (fulling, dyeing, tanning, slaughter houses) would

be found outside the domestic/market area, and towards the surburban and riparian areas.

- Street frontages are of general significance for reconstructing the character and phasing of urban settlement in different areas of the town.

10.3 Summary of Issues for tenements/burgage plots

10.3.1 A summary of issues around application of national importance to deposits of well-preserved tenement deposits:

- Waste pits, quarry pits and wells to the rear of residential structures often survive to a greater degree than the structures themselves. Nevertheless as repositories of artefacts they are of considerable interest as features.
- A quantification of survival has not been attempted, but this class is likely to be the most prevalent surviving aspect of the medieval and early modern town.
- Little work has been done to establish if early college holdings or academic halls have a material culture distinct from other residences, though there has been some suggestion that e.g lamps and writing implements may be characteristic.
- Well preserved remains associated with specialist activity, such as productive and industrial activities (including book production), and the context of academic and especially early college holdings would be of particular interest.
- Areas of good historical documentation, or where the historic buildings survive of are known from records would be of greater interest.
- Tenement deposits are of general significance for reconstructing the character and phasing of urban settlement in different areas of the town.

10.3.2 Essentially there is no difficulty in recognising the significance of the remains of medieval street frontages and backlands as a major component in the overall archaeological resource of the medieval and early modern town. The difficulty is rather in determining whether good or exceptional deposits survive in any given location, and the need to develop better models of existing truncation and cumulative impact.

10.4 Introduction – Task 5

10.4.1 This section considers the issues that arise whilst applying the concept of national importance to poorly spatially defined or characterised assets or landscape zones:

- The poorly understood friary precincts
- The second gravel terrace prehistoric landscape
- Our understanding of the Thames river crossing
- Potential for unique educational or science related equipment
- Archaeology of conviviality (food and drinks remains – both artefacts and ecofacts)
- Academic Halls and archaeology of academic life
- Un-located assets relating to the medieval Jewish quarter and community
- Other nationally important assemblages/assets that might be present.

10.5 Summary of Issues for poorly understood Priory Precincts

- Oxford was a significant centre of mendicant activity by the orders of Friars, and is distinctive at a national level for the importance of the Black and Greyfriars sites and the variety of smaller orders.

- A number of friary sites are known by documentary reference only and the precincts have not been defined, although in some cases documentary and map evidence have been used to attempt fixing their location.
- In the main further field evaluation would be necessary to establish the character and extent of survival, and assess national importance for these sites (with the exception of the well-excavated Black and Grey Friars).

10.6 Summary of Issues for the second gravel terrace prehistoric landscape

- Take away modern Oxford and the 2nd gravel terrace preserves parts of a monumental Middle Neolithic- Early Bronze Age landscape including henge, linear barrow cemetery, barrow array, satellite burials, unidentified linear monuments. The regional grouping of such monuments along the Upper Thames are of national interest.
- On the one hand the landscape has proved better preserved by open spaces within Oxford than one might have imagined, on the other hand the landscape is fragmented and extensively built over.
- Arguably Neolithic remains, unusual features and monument forms and features that contribute to identified questions (extent of landscape clearance and discontinuation of landscape, evidence for violence, burial practices, evidence for subsistence patterns) should be prioritised.
- Well preserved remains should arguably be given higher priority for 'sustaining significance' than truncated remains?

10.7 Summary of Issues for our understanding of the Thames river crossing

- St Aldates is now a well-studied transect across a number of Thames Channels, there is question mark over whether we should seek to develop further models on other another axis, or whether we should aim for more general modelling or whether the existing model (Prof. Mark Robinson) is essentially sufficient.
- Setting aside the existence of a transect model for St Aldates the potential for waterlogged survival means that the crossing area remains a high value zone, not least because key questions about the potential location of a prehistoric or Roman crossing, and the question mark over the date and character of a mid-late Saxon causeway remain.
- These questions are also relevant to the route of the later Norman crossing, including its westward turn along the Old Abingdon Road, where there are documentary references to 'fords'.

The geography and development pattern of Oxford means there are regular opportunities to investigate the Thames floodplain.

10.8 Summary of Issues for the archaeology of conviviality (food and drink remains)

- The sites of inns and taverns in Oxford, always prominent in the documentary record, and have potential for the archaeology of food and drink. Wine taverns have their own special area of sealed glass bottles, in the history of which Oxford has played such an important part (Banks 1997).
- Colleges (and to a lesser extent academic) hall sites have demonstrated distinctive patterns of food and drink consumption. There tend to be higher numbers of drinking vessels (reflecting both student/fellow consumption and the presence of artisans involved in building work on college structures) and also a number of colleges have produced distinctive animal bone and charred plant

remain collections (including high status game, evidence for medicinal or alchemical herbs and early hop use etc).

- Whilst these remains provide evidence of activities that may be recorded in college accounts, in general it is fair to say that accounts may be incomplete and are generally not translated and synthesised.
- Remains may be present in waste pits associated with college properties (not necessarily within the main college precincts) and also with extant listed buildings (e.g. below modern floor levels, forming part of the special interest of the asset)
- Assemblages may point to variations of wealth and status between different academic halls and colleges and potentially include other subtle variations of diet between regionally or religious influenced colleges (Welsh, Cornish, Northern, colleges set up by religious orders etc).

10.9 Summary of Issues for Academic Halls and the Archaeology of Academic Life

- The material culture of the religious and secular colleges (endowed institutions) and more numerous academic halls is of interest in terms of our understanding of 1) the economy of the town, 2) the evolution of education and scientific study, 3) the process of delivering a clerical elite for the nation, and 4) the evolution of individual colleges that as institutions can be assessed as nationally significant in historical terms.
- Whilst the extent of college halls and early college holdings can be mapped little work has been done to assess overall survival/potential.
- The architectural remains of halls have been studied by Pantin (1964) and their distribution mapped (Munby 1984, 1986, 1992), but their archaeology is less understood.
- While food and drink have been considered above, the archaeology of academic life:- the reading, writing and production of books in academic institutions is an important topic, as is the specialised area of book production in Catte Street.

10.10 Summary of Issues for the unlocated assets relating to the medieval Jewish quarter and community

- While the Jewish burial area is generally located (near the Botanic Garden) it has not been specifically identified; the same is true of the medieval Synagogue in St Aldates. A protocol for excavating suspected Jewish graves might be a good idea.
- Little excavated evidence can be clearly linked to Jewish ownership/ lifestyle/ activity although there is a zone of occupation along and off of St Aldates where documentary records demonstrate Jewish ownership of properties and formed a Jewish quarter.
- In general sites producing material culture that can be linked to the Jewish Community can be assessed as of high value.

10.11 Summary of Issues for other nationally important assemblages

- Assemblages derived from manufacturing, economy and trade and building practices during the emergence of the town from Late Saxon period to the 13th century.

Assemblages linked to development of medical science in the 19th century would be of high value; also any earlier assemblages related to the houses of Oxford apothecaries.

- Assemblages linked to scientific discovery (especially 13th-14th and 17th centuries). For example, these might include well preserved waterlogged plant remains within a 17th century well within the botanical garden, further dumped assemblages of alembics and oven fragments, ceramics with chemical residues, other scientific instruments (hour glass fragments, astrolabes), herb assemblages, imported plant species, specialist ceramics etc).

10.12 Conclusion

10.12.1 There are certainly topics and themes whose investigation would produce archaeological material of national importance, though their presence could not always be predicted, or even placed in a defined location, until discovered. There would thus be a case for recognising 'Themes of Special Significance' as much as sites.

11 KEY ISSUES RAISED BY WORKSHOP DISCUSSIONS

11.1 Introduction

11.1.1 The workshop held in Oxford on 12th November 2014 was attended by a number of interested parties under the aegis of ALGAO the Association of Local Government Archaeological Officers (ALGAO) urban committee (see Appendix). Material for discussion was circulated in advance, and the programme allowed time for papers and dialogue.

11.1.2 David Radford (introduction) discussed the dynamics and ownership of significance.

11.1.3 Carrie Cowan (NHPP Importance Project) provided an overview of the current research programme around monument scheduling, and the need to look at additional means of mapping and protection in urban and rural areas, marine archaeology and 'structureless' sites.

11.1.4 Julian Munby (Oxford overview) gave an account of the development of archaeology in Oxford, the scale of discovery in recent years and the continuing issues of recovery and preservation of archaeological remains.

11.1.5 David Radford (Approach to significance) gave a more detailed account of possible approaches to significance (as below sect. 12.4)

11.1.6 Sandy Kidd (Clerkenwell Case study) discussed the issue of the preceptory of the Knights Hospitaller in Clerkenwell, which had clear national significance as the headquarters of the order in England, but (as a large area of central London) was not an obvious candidate for scheduling.

11.1.7 Chris Wardle (Leicester Case study) discussed the case of the Roman forum in Leicester, part destroyed by the inner ring road and partly in public open space.

11.2 Issues

11.2.1 There was discussion of the semantics of 'significance', 'importance' and 'interest', noting that to an extent these were essentially the same, while raising questions of audience and shared interests and assumptions. It was noted that in Scotland the notion of 'National significance' was problematized and 'cultural significance was a preferred headline term.

11.2.2 It became apparent that Scheduling remains an important tool for effecting preservation, but is not about to be expanded/extended to include new categories.

11.2.3 The gap between the status of scheduled monuments and those only listed in HERs is somewhat akin to having only Grade I listed buildings and no intermediate category, and it would seem useful to introduce a subsidiary stage of recognition.

11.2.4 The designation of a new category of archaeological site would have to be a matter for local authorities, since it is improbable that designation teams in English Heritage (and its successor body) would be able to undertake such work.

11.2.5 The matter of the immediate vulnerability of remains (perhaps by desiccation) was discussed and it was not thought that additional criteria for this were warranted but that a 'Public benefit' argument could be advanced to secure recording rather than preservation if necessary.

11.2.6 A number of participants were quite clear that they considered a number of historic cities to constitute nationally significant assets in themselves (i.e. if buildings were removed and the site grassed over it would be schedulable). This led to a discussion as to how and when to employ the relevant paragraphs of the NPPF when dealing with small scale, piecemeal and cumulative works within such an area. DR introduced the potential application of scoring assessment for assessing urban remains but further analysis and debate was clearly needed

11.2.7 There was some disagreement regarding the wording of paragraph 130 (NPPF).

> *139. Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.*

Some officers interpreted this as reducing assessment to archaeological interest only, others suggested that all the elements set out in the DCMS statement on scheduling could be used in assessing significance.

11.2.8 The designation team representative seemed to imply that only the principles of selection were used by the team to assess monuments and not concepts such as 'spirit of place' and Conservation Principles etc.

11.2.9 There was not a consensus that the 'historic interest' mentioned by the 1979 AMAAA should necessarily be interpreted as that set out in Conservation Principles.

11.2.10 An example was provided whereby a case was taken to EH regional review panel to confirm an assessment of national significance, although the designation team was unclear whether this would have any internal status.

11.2.11 The question of whether a protocol could be provided to establish whether regional teams might provide observations on national significance on un-designated assets within the planning process timescale although it is not clear that such a commitment would be deliverable.

11.2.12 The designation team representative noted that there have been sites that have been assessed as nationally significant but not appropriate to schedule but were reluctant to see this as parallel list. The reasons for or against scheduling are placed on heritage gateway

11.2.13 Different types of approach to defining the extent of an asset were discussed. The idea of identifying either specific undesignated assets or specific themes (eg Roman pottery Manufacturing Sites) within a local plan was discussed.

11.3 Conclusion

11.3.1 In a wide-ranging and thoughtful discussion it was very apparent that some kind of recognition of national importance other than by Scheduling could have a role to play in the management of archaeology in planning. It also became clear that – while encouraged or generally monitored from the centre – this would have to be undertaken locally. Any new kind of designation might have to include themes as well as sites.

12 CONCLUSIONS

12.1 Introduction

12.1.1 It has become clear from this study that there are urban sites of significance that are unlikely to be Scheduled, and where scheduling would not be the most effective way of dealing with casework arising from them. These are sites that need to be distinguished from the bulk of sites only mentioned in the HER.

12.2 'Special Archaeological Significance' – A possible way forward?

12.2.1 Such sites would have to be identified by the planning archaeologist, and outlined on urban archaeological resource mapping as areas of greater significance within wider areas or general archaeological significance. As in the Clerkenwell case discussed at the workshop, the existing Clerkenwell 'Archaeological Priority Area' could have an inner zone of 'Special Archaeological Significance' to address the level of concern for the Knights Hospitaller's headquarters.

12.2.2 To some degree the mapping (as exists for Oxford in the *Archaeological Action Plan*) of domestic, defensive and ecclesiastical areas is informative and can function at one level to draw attention to topics of concern for those zones. But it is clearly desirable to draw attention to e.g the line of the outer of Oxford's double walls, or the actual area once occupied by the Blackfriars' church and cloister as an area of special significance within the general are of interest of the larger area of the monastic precinct.

12.3 Candidate sites

12.3.1 Sites and topics of special significance in Oxford that would have to be considered could include the following:

Heritage Asset	***Type/Complexity***	***Definition***
The Wolvercote Channel	Area - Simple	General area
The University Parks Barrow Cemetery	Site - Simple	Clearly defined
The Oxford Roman Pottery Industry (East Oxford only)	Area - Simple	General area with known core
The Saxon and Medieval Town	Topic - Complex	General area with varied survival
St Frideswide's Priory	Site - Complex	Known precinct and core area
Hospital of St Bartholomew	Site - Intermediate	Known precinct and core area
Hospital of St John	Area - Intermedieate	Varied remains within Magdalen College
Littlemore Priory	Area - Intermediate	Generally defined
Black Friars	Site - Intermediate	Clearly defined core area
Grey Friars	Site - Intermediate	Clearly defined core area *(part due for excavation in*

Heritage Asset	***Type/Complexity***	***Definition***
		current development)
Other Friars	Topic/areas - Intermediate?	Areas uncertain
Oseney Abbey	Site/area - Complex	Clearly defined core area beyond limited SAM.
Pre-college medieval occupation	Topic - Complex	General area with varied survival
Oxford Castle	Site - Intermediate	Defined defensive perimeter beyond SAM.
Saxon and Medieval Town defences	Area - Intermediate	Clearly defined, including rampart, outer wall and ditch (beyond current SAM).
Civil War Rampart	Site - Simple	Clearly defined
Garden of the Jews	Site - Intermediate	Inferred from documentary evidence.

12.3.2 Note that while this list includes three partly scheduled sites (Oseney Abbey, The Castle and City Walls), it omits the Scheduled Site at Rewley Abbey which has an all-encompassing scheduled area.

12.3.3 With a list of possible sites (and setting aside the question of whether they might have 'hard' or 'fuzzy' edges or buffer zones), there is then a need for a method of assessing their significance to inform any adoption.

12.4 Considering the dynamics of significance

12.4.1 The current DCMS guidance provides a series of criteria and concepts with which to assess an asset. These can be seen as a series of filters or processes that can be gone through in order to construct a case for or against 'demonstrable' equivalence to a designated asset. Below consideration is given to a number of other influencing factors in order to stimulate debate about 'interest' and 'value' and how these change over time.

The role of academic interest

12.4.2 Placing an asset within the framework of archaeological interest is not always straightforward. The obvious starting point would be the interest the asset has to academic research and to established research designs. However if academia has not yet developed a body of synthesised data for a given asset type this clearly does not mean that it does not have archaeological interest. Furthermore academic research is mediated by its own internal politics and funding streams that may lead to research being focused in certain areas. An asset might be rare but very well studied or common but poorly understood. There may be a series of dynamics at work in terms of an assets ability to hold 'evidence of past human activity'. For example it may be possible to leave an asset in the ground and in fifty years' time its interest may have significantly diminished because information has been produced from other sites.

12.4.3 At present large parts of the asset base are not featured in agreed national research strategies, either by theme or by period. Sometimes research themes might have been agreed at a local or regional level but not at a national level, making assessment of an assets relevance to national research more of a subjective judgement.

Archaeological Science

12.4.4 If we can identify asset types that are likely to produce archaeological interest through the implementation of scientific techniques how might this impact on our assessment of significance? For example a key part of the archaeological interest of a linear earthwork might be its date. If scientific dating is the best bet for retrieving an accurate date and the relevant technique is still advancing (rather than having perhaps plateaued for a long period of time or reached an impasse) them arguably there would be a greater case for preserving the asset until an improved dating technique could be applied?

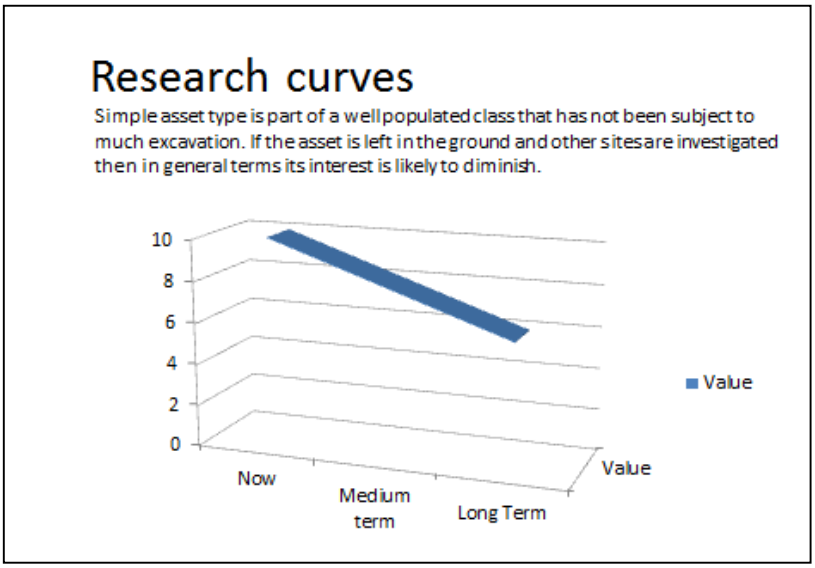
12.4.5 Therefore some consideration might be given to whether a site is static or dynamic in terms of its scientific potential and as to whether is there a scientific 'research curve' that can be identified based on the advance or stagnation of different kinds of techniques? The following observations can be made of a selection of commonly used techniques:

- Isotope analysis- advances being made
- DNA- significant advances being made
- Geophysics- slow advances being made
- Radio-carbon- recent advances, further potential advances
- OSL – slow refinements?

12.4.6 An initial assessment of commonly applied scientific techniques suggests that none are demonstrably in a period of long term stagnation or can be demonstrated to have necessarily reached the point of maximum application.

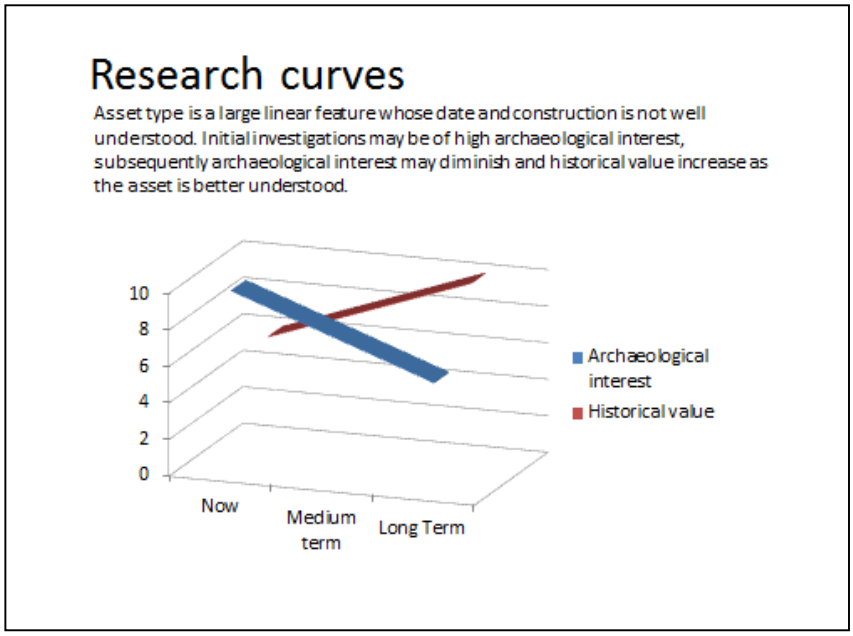
Research curves

12.4.7 Should we give additional weight to assets with certain characteristics which mean that they offer high value results in the short term (in terms of interest) and if so how do we square this with the policy which encourages these assets to be left in the ground? For example sites with waterlogged deposits and sites that might offer rapid advances in knowledge because of current research dynamics (e.g. isotopic/DNA analysis) could be given greater weight in terms of archaeological interest. Under the current guidance it would be logical to identify these assets as of high value and seek to conserve them precisely because they are of interest now.

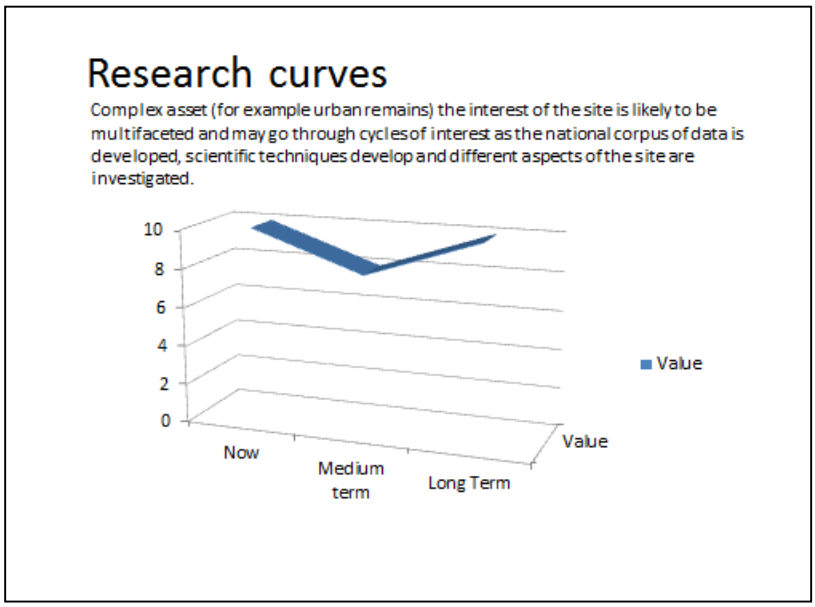


12.4.8 Furthermore different types of asset produce and retain archaeological interest in different ways. One way of looking at this is by considering generalised models or 'research curves' of how interest might shift over time. Taking the example of the recently excavated Oxford Radcliffe Infirmary burial ground assemblage this asset is of interest to academics because it is a relatively large corpus of inhumations from an 18th-19th century hospital burial ground that might offer insights into population mobility and public health but also because few comparable assemblages have been examined. However the data set for 18th-19th century populations in hospital, asylum and workhouse burial grounds is potentially quite large. In twenty years-time another twenty burial grounds may have been excavated and published. This would potentially mean that if left in the ground the interest of the site would diminish.

12.4.9 Another type of site with a 'research curve' might be a large uniform linear monument that once the structural form, construction sequence and date are known becomes more significant for its historic interest rather than for archaeological interest.



12.4.10 Alternatively an area of complex urban stratigraphy may keep its interest over a greater time span because of the range of deposits present and the different questions that might arise from incremental investigation. The same dynamic might be true of an asset type that is very representative of its period (period value). For example the



first batch of Roman villas or Bronze Age barrows to be carefully excavated can arguably be assessed as producing more interest than subsequent excavations of similar assets. However, because of the period representation subsequent important insights might be developed from the build-up of a corpus of data about an asset type or arise from individual sites with subtle or unique variations that could prove key to understanding specific aspects of say social organisation or funerary practice etc.

12.4.11 Therefore 1) If an asset is on more interest if we dig it now only because it is the first of many to be looked at, or 2) an initial investigation may prove decisive in resolving the archaeological interest of an asset without substantively removing it- what follows? In these cases do we still argue for preservation in situ given that the 'interest' is potential 'front loaded'?

The potential for the unforeseen or exceptional

12.4.12 Can we assess the potential for 'unexpected or exceptional' finds or features to be present in an urban site that is being proposed for development or redevelopment? In other words might there be 'known unknowns'? Arguably, the complexity of human interactions and the length of continuous use of urban sites (taken as an asset class in themselves), means that there is a greater potential for unexpected or exceptional finds to turn up.

12.4.13 Perhaps if sufficient high level of modern excavation had taken place in an urban area it might be possible to plot the number of sites that have produced exceptional or unexpected finds in order to produce some kind of 'exceptionality index'. That is to say one urban centre might consistently produce standardized domestic, commercial or industrial assemblages, perhaps if it were a lower ranking urban centre with little political history, another site might consistently produce unexpected data.. Examples from Oxford might be evidence for rare imports, evidence for specialist production, scientific equipment, military equipment, unusual or early imported food stuffs etc.).

12.4.14 On reflection it is considered that, although Oxford might score quite high on such an index because of its political history, location on trading routes and European intake of its religious and secular colleges, it would be beyond the scope of this study to produce meaningful assessment of other urban centres.

12.5 Assessing areas of complex remains as opposed to individual asset types

12.5.1 Assessment of individual asset types/classes where there is synthesis and national assessment data (e.g. leper hospitals, friaries) is arguably more straightforward than making an assessment of the potential loss of a small part of an urban deposit. The urban settlement as a whole might be considered to be nationally significant, but at what point should the relevant NPPF paragraphs apply? Applying them to all development within a nationally important historic core is arguably politically impractical and might be seen as onerous and unreasonable in planning terms. More realistically a site specific judgement aided by contextual assessment will be needed.

12.5.2 For localised urban deposits that form part of a nationally significant whole, where asset type/class assessment does not provide an over-riding means of assessment can complex remains be assessed by application of a scoring methodology based on the likelihood of remains being present and the type of anticipated remains?

12.5.3 A possible multiplier is provided below. With the characteristics of the site (potential for known asset types, spatial relationships (boundaries, structures, pits etc) and complexity (time depth or perhaps documented history) multiplied by the level of certainty:

	Special	***Spatial***	***Complex***	***Score***
Possibly				
Likely				
Actually				

12.5.4 Certainty of presence (with scores):

Possible (1) - remains of a certain type are possible in this location because of the context

Likely (2) - remains of a certain type are likely in this location because of the context

Actual (3) - remains are recorded as being present.

12.5.5 Contributory factors:

Special (1) - can specific asset types of high value be identified within the site?

Spatial (1) - In an urban context is the site large enough or located in a position such that it is likely to reveal information about the spatial layout of plots, boundaries, quarrying/refuse disposal, buildings within plots etc.?

Complex (1) - is the site complex in terms of either contemporary features or multi-period remains?

12.5.6 Other issues for consideration:

- Are there similar sites already excavated in the town?
- Do the previously excavated remains form part of a national corpus of data?
- Do the previously excavated remains comprise the substantive component of that corpus?
- Have similar remains been excavated elsewhere but not been published?

How should the answers to these questions effect our value judgements?

12.6 The Designation route: - A series of filters?

12.6.1 In conclusion the process of assessing significance can be seen as a series of filters or concepts that can be applied to a specific asset (or part of an asset) and its unique context in order to aid the production of an informed (if perhaps still necessarily subjective) assessment.

12.6.2 These would consist of:

1) The application of the principles of selection.

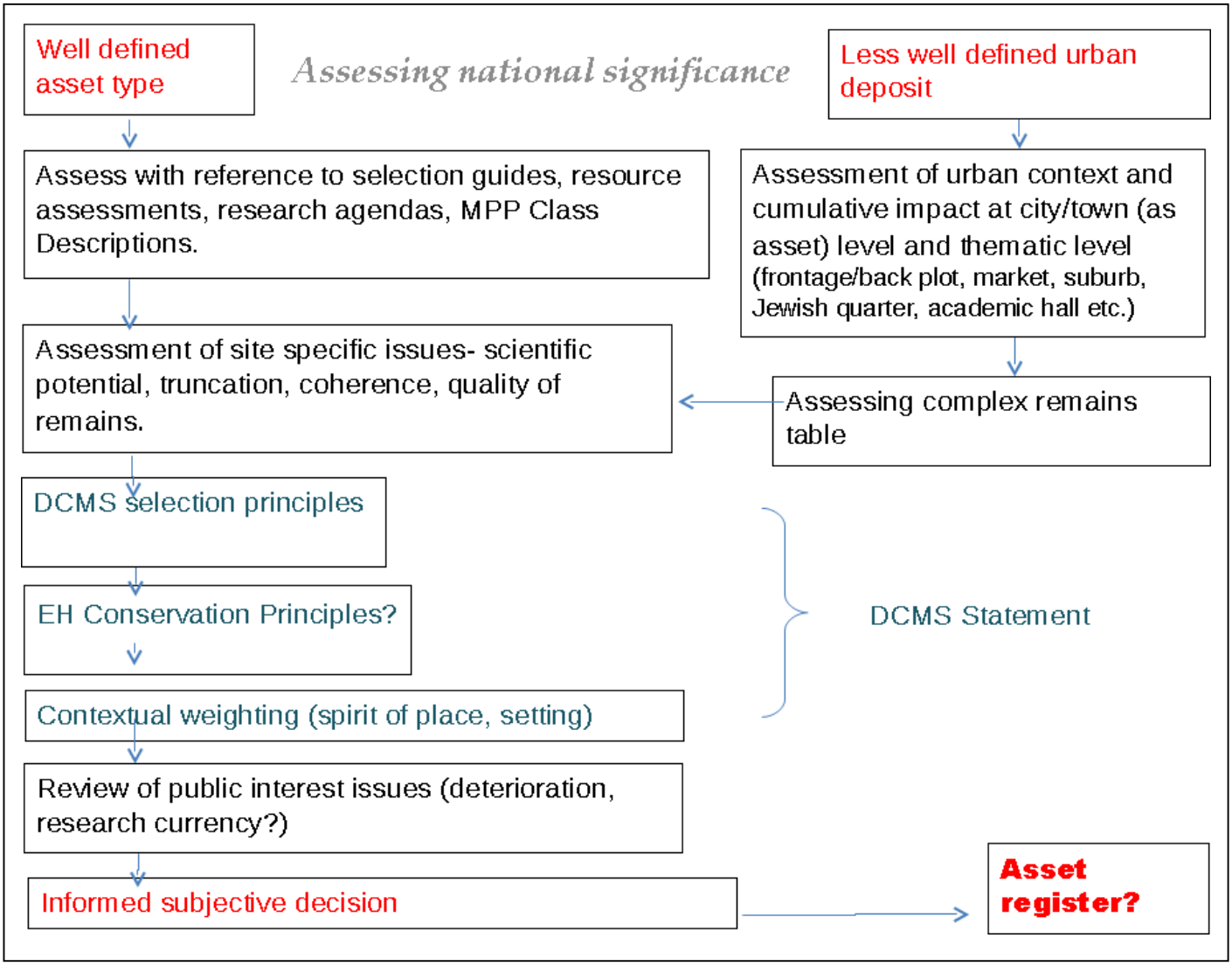
2) The consideration of English Heritage's *Conservation Principles* which clearly adds to the DCMS criteria in the area of illustrative and associative historic value. Such values are also easier to address in terms of arguments for preservation rather than realisation through excavation.

3) What might be called 'contextual weighting' e.g. taking into account whether and asset might have an exceptional setting or contribute strongly to the spirit of a place).

4) An assessment of how the archaeological interest of an asset might be dynamic (In following table this is called 'Review of public interest issues'). This might, for example, involve consideration of how desiccation is impacting on the stability of an asset or perhaps whether an assets interest is primarily because it is the first site of its kind to be examined. Although it is not currently clear what

conclusions should be drawn from such an assessment in terms of the current requirement to 'sustain significance'.

12.6.3 Such as process can be represented as shown in the following table:



12.7

12.8 Conclusion

12.8.1 The establishment of a category of sites and themes of 'Special Archaeological Significance' as part of the management of archaeology in planning would seem to be a helpful addition to the available tools for sustaining the archaeological resource.

12.8.2 It does not seem realistic to expect a new archaeological designation to be taken up as a nationally-led programme in the same way that Scheduling is led and managed. Rather it is within the capacity and direct interest of those managing the local archaeological resource to identify and designate such sites and areas that are held to be of special significance (and may be at risk).

12.8.3 Locally designated, the category would not create additional burdens, but clarify the level of knowledge and understanding on which decisions are made. It would of course be more effective were national guidance and suggested methodology promoted centrally, so that the product was a recognisable entity whose character could be established by experience and casework.

12.8.4 As an intermediate level between Scheduled Monuments and HER sites, the additional designations would create a more understandable hierarchy of significance, which could be better understood and seen to be more fairly applied.

12.8.5 With regards to the internal processes of English Heritage there may be scope for greater clarity regarding which aspects of the DCMS guidance on assessing significance are considered relevant, especially if the designation team primarily focus on the principles of selection.

12.7.6 With regards to English Heritage providing supporting advice to Local Authorities charged with rapidly assessing significance, this is clearly a matter which EH may wish to give further thought. Under the current National Planning Policy Framework the requirement for Local Planning Authorities to assess non-designated assets for national significance can arise either at the pre-application stage or within a standard 8 or 13 week planning application timescale, depending on the approach of the applicant. In some cases, planning archaeologists may even find themselves requesting further information to assess the asset in question within the 8 or 13 week timescale and therefore could conceivably obtain crucial field evaluation information about the asset with weeks or days to go until the determination date.

12.7.7 Therefore any process that might be established to allow either the English Heritage regional local offices or the national designation team to provide rapid advice on the national importance of such assets would need to take account of this tight timescale, either by accepting that advice may have to be based on the perhaps incomplete information available at the planning application registration date or by accepting that it may be necessary to request the suspension of the application for a suitable consultation period should important field evaluation information be received once the application clock is ticking. This is clearly not a straightforward matter as requests for such suspensions may be a cause for concern for Local Authorities focused on planning performance and delivery targets.

Oxford Archaeology

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Appendix A: WESTGATE CENTRE

Contents:

1 WESTGATE CENTRE: THE CONSULTANTS ORIGINAL ENVIRONMENTAL STATEMENT SUBMISSION SETTING OUT THEIR CASE FOR REGIONAL SIGNIFICANCE

1.1 Medieval Greyfriars complex

- A conjectural layout plan of the friary church and claustral buildings had been defined from archaeological trenches and area excavations undertaken in the 1960s and early 1970s in advance of the Westgate Centre construction. The depth of excavation required for subsequent construction of the Westgate Centre's basement and foundations removed surviving archaeological evidence within the area of the Westgate Centre itself, with the exception of a small area at the eastern end of the church's north aisle, where a group of pier bases was preserved within the floor of a service bay beneath Sainsbury's.
- Within the area south of the Westgate Centre and south of Old Greyfriars Street, the 2006 and 2008 trial trenching work confirmed the general validity of the 1989 Hassall layout plan, but also identified better survival of friary remains to the south of the friary church than had been anticipated. The 2006 / 2008 works also confirmed the presence of additional structural remains not predicted from the 1970s work. Robbed or partially robbed wall footings which appear to relate to the friary complex were identified in a number of the evaluation and trial trenches within the multi-storey car park south of the existing Westgate Centre (2006 Trench 12, 13, 14; 2008 Trench 21, 24, 25, 26). The trial trenching produced no evidence for survival of wall footings above foundation level, and only equivocal evidence for the survival of any intact floor surfaces. The friary remains survived in aerobic conditions, with no evidence for survival of waterlogged anaerobic deposits in this part of the Westgate Site (although the presence of such conditions within the Trill Mill Stream area to the south of the friary precinct is noted - see separate discussion below).
- The trial trenching also demonstrated the a significant degree of truncation and a partial loss of plan information resulting from residential development of the area in the 19th century and formation of the existing multi-storey car park, and the insertion of services (for both 19th century terraced housing and the multi-storey car park).
- One trench at the north end of the car park (2006 Trench 14 / 2008 Trench 21) contained a series of what appeared to be midden deposits, possibly representing the disposal of rubbish away from the site of occupation or domestic activity.

- The 2007-8 trial works identified a possible early western boundary to the friary complex (Trench 20), but also demonstrated the effect that development in the 19th and 20th centuries had on survival of earlier archaeological deposits.

The 2006 and 2008 trial trenching results would suggest a reasonable level of legibility in the surviving broad layout and plan form at foundation/robbed foundation level only for the southern buildings of the friary complex (i.e. in the area beneath the existing multi storey car park), but little survival in the area around the cloister immediately south of the friary church (i.e. in the area of Old Greyfriars Street and adjacent open areas), and no extensive survival within the area of the friary church itself or the northern part of the precinct, (i.e. in the area beneath the existing Westgate Centre).

- Overall, the friary has considerable heritage significance based on its historic interest as part of the first Franciscan mission, and place of burial of the St Agnellus of Pisa – the founder of the Franciscan Order in England; its role in the development of the Franciscan Order; as an early centre of learning contributing to the development of medieval science; and its association with important Medieval scholars including Roger Bacon and Roger Grosteste, both of whom were friars. These aspects of the friary's significance are assessed as being of at least National importance.
- The preserved group of friary church pier bases is not protected by designation as a Scheduled Monument, but is considered to be of comparable, National, importance because of its historic interest and commemorative value as one of the few potentially visible remains of the friary church.
- Notwithstanding the loss of evidence from the northern part of the precinct and the core area of church and cloister, the surviving archaeological evidence within the Westgate Site has the potential to inform understanding of the plan form, layout and institutional development of the Oxford Greyfriars complex, and by inference, other Franciscan houses. Recovery of archaeological finds incorporated within rubbish or midden deposits within the friary precinct has the potential to provide information on the material culture of the Greyfriars complex (and changes throughout the history of the complex).
- Surviving archaeological evidence for friary buildings south of the church and the potential friary western boundary are considered to be of Regional, rather than National, importance because of their comparable historic interest but the lesser degree of intactness and surviving archaeological interest (due to truncation and loss of information through previous development), as established in the 2006 and 2007-8 trial trenching.

2 WESTGATE CENTRE: THE PLANNING ARCHAEOLOGIST'S ASSESSMENT USING CURRENT SCHEDULED ANCIENT MONUMENT ASSESSMENT CRITERIA

2.1.1 In order to complete the assessment the planning archaeologist consulted (amongst others) George Lambrick and Tom Hassall who had previously overseen excavations of the Oxford Blackfriars and Greyfriars, as well as the academic Deirdre O'Sullivan who has produced a recent synthesis of work on friaries. The following assessment was sent to the consultant in note form. A similar assessment was also submitted by Oxfordshire Architectural and Historical Society (OAHS) to the City Council as a part of the application consultation process.

2.2 Background quotations for context

2.2.1 Oxford was the.. *'greatest of the friaries'* (Little 1892: 124).

2.2.2 '*Oxford, and to a far lesser extent Cambridge, dominated mendicant life at its highest level' ..'This leads to the special relationship between Oxford and the Friars Minor, a relationship which goes beyond the eminence of the Greyfriars'* (Sheehan 2006: 220)

2.2.3 *"Together with the Grey Friars, the Dominicans were the academic elite of London, ensuring the city's status as a European cultural and intellectual centre (admittedly in 'third place' after the university towns of Oxford and Cambridge)"* (Holder 2011)

2.2.4 *'It is clear, then, that in the educational system of the Franciscans- not only in England but overseas as well- the two schools at Oxford and Cambridge had a most important place'* (Moorman 1952 23)

2.2.5 Re the official documents of the order, 'in 1336 in the Constitutions drawn up by Benedict XII, we find Paris, Oxford and Cambridge repeatedly mentioned as the three most important schools in Europe' (Moorman 1952:23).

2.2.6 'The site is of particular interest as the studium of the Franciscans in England, with an interesting history going back to the early days of the order. As a studium, it would have accommodated friars from all over the English province, and indeed, further afield, who would have spent formative years in pursuit of their studies at the university. The physical appearance of the friary is likely to have been both memorable and influential. At this level it can be considered of potentially international importance. The Oxford Greyfriars was not an 'ordinary' friary' (pers. comm. D. O'Sullivan, Leicester University).

2.3 Period Assessment

2.3.1 The friary is a long-lived asset in use from 1220s until the Dissolution. Friaries are just one of many monument types that characterise the medieval period. However within the class of Franciscan friaries Oxford was one of the first three foundations in England. The Oxford site was one of three early *Studia Generalia* of the Franciscan Order (along with Paris and Cambridge) attached to European universities that had established theology faculties in the 13th century (Moorman 1952: 24-25; Kane 2010). It therefore was an important European centre of the study in advanced theology and natural philosophy (encompassing early scientific experimentation).

2.3.2 The Oxford friary was one of four *Studia Generalia* of the order that was attracting students from other provinces by the 1240s (Paris, Bologna, Toulouse, Oxford)

(Roest 2010: 277). By 1336 Oxford was one of seventeen European towns where the Franciscan friary/convent was conferred with the status of *Studium Generale* (these were Paris, Oxford, Cambridge, Bologna, Toulouse, Cologne, the Curia Romana, Rome, Milan, Montpellier, Padua, Florence, Strasbourg, Assisi, Perugia, Barcelona and Lyon) (Senocak 2012).

2.3.3 The friary therefore had significant influence and status at a European level and its architecture and material culture will have been influential at least at a Franciscan provincial level (e.g. England). It therefore characterises a sub-category of asset (Franciscan *Studia Generale*).

2.4 Rarity Assessment

2.4.1 Friaries are relatively rare within the corpus of medieval ecclesiastical monuments in England. Although the number of medieval friaries can be estimated fairly accurately from surviving documentation only 15 of the original 189 friaries, have left substantial above-ground remains (English Heritage 1989). The most numerous mendicant friaries in England were that of the Franciscans, who had established 40 houses before 1240 and eventually had 60 (Knowles and Hadcock 1953) (See above for the European picture).

2.4.2 Of these Oxford is:

(i) Distinctive for its role as the one of two (and the senior) *Studium Generale* of the order in England. It was one of three early *Studia Generalia* attracting international students in the 13th century (the other two sites have been subject to only limited investigation - Cambridge Greyfriars which is below Sidney Sussex College has been subject to limited excavation, geophysical survey and evaluation trenching (Wilson and Hurst 1960: Dark 1987: Hind et al 1994) and the Paris Convent which is below the Medical Faculty of the University (and which has a standing Refectory) has been subject to only limited evaluation trenching (Brut and Poignant 2003).

(ii) Unique for its association with outstanding theologians and other major contributors to intellectual thought and practice of the day (E.g. Robert Grosseteste, Roger Bacon, Duns Scotus, William of Ockham).

(iii) Especially rare for its role in the early University (only paralleled at Cambridge) with potential for material culture associated with a high number of international students and potentially early scientific activity. Whilst the latter is speculative it should be noted that a 14th century alembic fragment was located during the 1960s-70s excavation at St Ebbes (Haslam 1989). Recorded assemblages of glass distilling vessels from England date mostly from the 15th century and are monastic in nature – St John's Priory, Pontefract, Selborne Priory in Hampshire, and St Leonard's Priory in Stamford (Tyson 2000, 168-178). A notable exception is the assemblage of distilling or alchemical glass ware and ceramics recovered from a garderobe of a former hall under Peckwater Quad, Christ Church, Oxford, which has been dated to the first-half of the 14th century and is the earliest find of its kind in England (Tyson 2012). The Oxford Greyfriars has also produced a book clasp and stylus, although these are more common finds in urban and monastic contexts.

(iv) Very rare in the size and extent of the buildings and precinct. The Oxford friary had one of the larger precincts in the province (9 acres) compared to London (6 acres) and Cambridge (4 acres) (Martin 1937: 9) and was notable for its international intake which may led to the formation of a second academic cloister and the construction of two recorded libraries. The architecture of its church was distinct and contained a large number of chapels (ten are noted in the 15th

century) and was designed with a view to teaching (with a 'preaching nave' that is unique among English friaries and otherwise principally known from much smaller Irish examples).

(v) Notable for the number of chapels and therefore its relationship with elite patronage. A stained glass window in the Glasgow Burrell collection is likely to be from the Oxford Greyfriars and portrays '*the only intact donor figure dating from before the end of the thirteenth century'* (Marks 1993: 4). The question of the extent of elite patronage and its impact in terms of material culture and approach to decoration/art, especially in comparison to the Blackfriars, requires further research (Hassall et al. 1989: 191-2).

(vi) Contained the as yet unidentified (or destroyed) tomb of St Agnellus of Pisa who was a founder of the order in the province and Provincial Minister.

2.5 Documentation Assessment

2.5.1 The Oxford Franciscan friary has been well studied by both historians (notably Little 1892) and archaeologists (notably Hassall *et al*. 1989) and has good documentary sources in comparison to other friaries. Archaeological work, mostly on the church, demonstrated the reliability of some of the documentation, such as the measurements of the church given by William of Worcester (including the unique preaching nave).

2.6 Group value Assessment

2.6.1 The Oxford Franciscan friary is of particular interest - both historically and archaeologically – for a number of reasons:

(i) Group value with the nearby Dominican Friary which played a closely parallel role in relation to the early university, e.g. the importance in intellectual life, its scale and significance as a studium, its low-lying location with proven potential for rare environmental evidence that provides otherwise unavailable evidence of the life style of friars in these powerhouses of medieval intellectual life. The Oxford Blackfriars is an important 'site type' (English Heritage 1989) and produced distinctive artefactual and environmental remains including a 15th century drain which contained evidence for medicinal plants (Robinson 1985) and elsewhere the frame of a possible sand glass (for measuring time) from the 15th century silts (Lambrick 1985).

(ii) Its Group value with other contemporary religious institutions in Oxford. E.g. the growing archaeological evidence of other friaries (almost all represented in Oxford), monastic orders (e.g. at Rewley, Oseney etc.) the monastic and secular colleges and halls that are part of Oxford University, and lay institutions and domestic life

(iii) Its group value with the other early and later *Studia Generalia* of the Franciscan Order (see above).

(iv) Its group value with other Franciscan provincial sites and the wider number of mendicant friaries in England.

The site is also of interest because of:

(v) Its physical relationship to the defences of Oxford straddling the City Wall - the church replacing the wall and becoming part of the defences, and the issues of where the late Saxon and early medieval defences preceding the Friary were.

(vi) Its physical relationship with the underlying hydro-geology in relation to terrace edge former river channels, alluvial deposition, pre-friary land use, and how the land was made fit for the development of the claustral area (a major urban land forming operation), including the date range and character of the extensive

landfill operation (i.e. the dumping of rubbish to reclaim the land from the flood plain).

2.7 Survival/Condition Assessment

2.7.1 The absence of much upstanding remains is typical of most urban friaries due to subsequent urban redevelopment. Nonetheless, part of the church of the Franciscan friary is upstanding (at least in part rebuilt form) and is part of the Scheduled city defences. An *in situ* pier base of the church was preserved in a specially constructed basement under the Westgate shopping centre which otherwise destroyed most of what remained of the priory church after post-dissolution demolition (e.g. some foundations; partial mortar bedding for floors; robber trenches; graves). A 2006 evaluation trench identified a possible grave cut in the vicinity of the church choir and the excavation plans from the 1970s suggest that parts of the church may remain *in-situ* south of the lower floor of the current Westgate

2.7.2 The southern claustral area was damaged by the construction of the associated multi story car park but significant remains survive below and around it, including midden deposit, possible mill related structures, robber trenches, water supply conduits and drains, localised survival of floors and occupation layers, waterlogged deposits in the southern part of the site, deep alluvial and channel deposits and pre-alluvial prehistoric ground surface. Although survival and condition is thus variable, and there is little upstanding masonry, the moulded stone, window glass, floor and roof tiles and other fittings can do much to illuminate the architectural quality of the buildings. The surviving remains are in reasonable condition - and most critically, it is the layout of the buildings, the evidence of building phases and the evidence of artefacts and environmental deposits that are by far the most important sources of evidence to complement the historical documentation about the Friary's particular importance.

2.7.3 The full extent of the friary has not been fully defined by excavation, however the likely western wall has been identified (excluding a further possible garden precinct to the west) and the eastern gated entrance in known from documentary sources to be located fronting onto Littlegate Street. The friary extended southwards from the former Church Street to the Trill Mill Stream and owned land beyond. Whilst a full truncation model south of the Westgate lower floor level (which has truncated the friary from the middle of the church Choir northwards to Church Street) is not currently possible the evidence suggests that the remains of deeper features associated with up to two thirds of the precinct may survive to south of the priory church (with localised areas of surviving floor levels and also some areas of full truncation).

2.8 Fragility/Vulnerability Assessment

2.8.1 The surviving remains are relatively stable at present but extremely vulnerable to disturbance by redevelopment - especially if this involves large basements or extensive piling, pile caps ground beams services, lift shaft bases, crane bases, temporary ramped access points etc. Waterlogged remains beyond the immediate footprint of any development and construction work may be vulnerable to desiccation through dewatering.

2.9 Diversity Assessment

2.9.1 The different parts of the Friary with their different states of physical survival and documentation is an important part of the overall diversity of the evidence, and a highly significant part of the is the range of artefacts and biological remains that are

capable of shedding light on some of the most significant aspects of the Oxford Franciscans' historical significance among medieval England's intellectual elite. The diversity of evidence relating to the City defences, the hydro-geology of the floodplain and the expansion of medieval occupation on the floodplain add considerably to the diversity of evidence that the site of the Oxford Franciscan friary contains.

2.10 Potential Assessment:

2.10.1 The site retains considerable archaeological potential on several levels and lines of evidence:

a) It is especially in the claustral area and the academic/industrial area to the south where physical evidence relating to the historical importance of the friary in terms of intellectual life, and relative social status and life style of the Friars - including potential international relations - is most likely to survive.

b) There is potential to establish patterns of land reclamation and building phases within the complex.

'The buildings of the friary might expect to have had quite a complex range of uses, incorporating accommodation for both students and resident friars; there were also two libraries/book collections. To accommodate these functions, it seems overwhelmingly probable that there was a second cloister to the south of the main one', which has yet to be confirmed by excavation. (pers. comm. D O'Sullivan Leicester University).

c) There is also significant potential for human remains to survive somewhere in the claustral area, chapter house and area south of the church, and this could be of significance in relation to the distribution of male female and child burials, and the physical health, age and origins of friars who were buried at Oxford. '*The burials excavated in the 1960s and 1970s in the church and the cemetery to the north were almost all male, indicating little evidence for lay burial - an interesting issue, worth exploring further. The cloisters might also have been used for burial - this is not uncommon.*' (pers. comm. D. O'Sullivan Leicester University)

2.10.2 (d) The highly likely survival of waterlogged deposits and other biological evidence, as well as artefacts is of special potential that a recent review of archaeological evidence form friaries has especially highlighted, as exemplified by the Oxford Blackfriars. This greatly enhances the potential importance of the group value considerations of the roles that both the Franciscans and the Dominicans played in the development of one of Europe's leading universities: they were both founded with a particular view to fulfilling this role and historically, both certainly did so.

> *'One area where further work at the Greyfriars could prove of great significance is in the field of environmental evidence. To date there is negligible useful work in this respect from medieval friary sites; even animal bone assemblages are few and far between, and rarely useful. The evidence from the Oxford Blackfriars is exceptional in this respect.'* (pers. comm. D. O'Sullivan Leicester University)

> *'The extent of industrial activity associated with a subsidiary cloister is also a prime objective in excavation'* (English Heritage 1989).

> *'Organic textile and food remains, however, may be more likely to occur beyond the area of the cloisters in deeply-stratified water-logged ditches and pits. Any features suspected to contain human faecal material will be*

invaluable in progressing the study of monastic diet' (English Heritage 1989).

'Few large assemblages of animal bones have been recovered from urban monastic sites (English Heritage' 1989).

2.10.3 The 2006 Phase 1 evaluation of the Westgate Multistorey site noted:

'The fish remains were generally very well preserved, with both marine and freshwater taxa represented' (Bashford 2006: 6.10.2)

'The plant waterlogged and charred macrofossil assemblage (including charcoal) recovered from the evaluation is well preserved and interpretable' (Bashford 2006: 7.1.14)

'most bones were in good condition..' (Bashford 2006: 6.9.6)

'should the area be more fully excavated, the study of bone from contexts associated with the friary have the potential to address, inter alias, the nature of the diet available to the friars' (Bashford 2006: 6.9.11)

2.10.4 Investigations at the site have produced jugs with unusual anthropomorphic decoration (Blinkhorn in Bashford 2006: 6.1.2) and regional imports paralleled at other monastic sites in the west and south part of Oxford but not on neighbouring tenements (Mellor 1989: 219).

e) The site has the potential to shed light on the patterns of post-Dissolution land-use and patterns of robbing and re-use which is current area of academic study (pers. comm. D. O'Sullivan).

f) Although the area of the church has lost virtually all its potential, there remains an important relationship to the City defences that still has considerable potential.

g) The site retains considerable potential to shed further light on the development of the Thames floodplain and palaeo-channels.

h) The site has the potential to answer numerous further questions. A non-exhaustive list of research questions would include:

- The character of the principle foundations and whether these put in before land filling;
- What was the extent of the initial landfill? Were these mendicant friars taking contemporary municipal/private rubbish as alms, or were they quarrying into the Church Street terrace?
- Re the Water source to rere-dorter: was this from the diverted Trill Mill Stream as previously assumed, or could it be from the castle ditch?
- Re the Buildings outside the putative cloister, what was the character and extent of the utility/industrial buildings, was there a second (possibly academic) cloister? What was the function of the big north-south building that appears on Agas' 1578 map, could it have housed a library? Was the `industrial' usage housed in monastic-quality buildings?
- Re the material of embanked part of Trill Mill Stream was this different from the landfill.

- What was the character of the putative Greyfriars' mill? Typically the frame supporting a vertical wheel would be founded on two/three massive cross-wise oak sleepers *c*. 6 m long, *c*. 3 m spacing between each, one being at headrace level, two at tailrace level (parallels at Old Windsor; Bordesley; Reading St Giles) (Pers. Comm. B. Durham).

2.11 Conclusion

2.11.1 Overall the site can be assessed as of national significance in terms of its potential evidential value. The current national guidance on designating post AD410 urban religious community sites states that 'Where there are substantial remains… these will be reckoned of national importance' also that 'Given their urban nature, however, management through the planning process may be more appropriate than designation..' (EH 2013).

3 WESTGATE CENTRE: THE REVISED CONSULTANT'S STATEMENT FROM ENVIRONMENTAL STATEMENT ADDENDUM

3.1.1 Following further discussions and exchange of plans the applicant's consultant submitted a revised Environmental Statement in the form of an addendum that reassessed the significance of the friary remains. The addendum was supported with a detailed plan of the likely truncation of the site from previous pile impacts, servicing and excavation trenching overlaid over a conjectural plan of the friary.

3.1.2 There have been no changes to the range of archaeological heritage assets identified within the Westgate Site.

3.1.3 The additional assessment methodology has however enabled a more structured description of the significance of the Oxford Franciscan Friary heritage asset within the Westgate Site. The asset includes the areas of the Friary church, and the Friary precinct to the south of the church and north of the Trill Mill Stream. The significance of the Friary is discussed below, and in Technical Appendix 13.1 to the September 2013 ES Addendum, using the principles identified above.

3.1.4 Baseline Conditions relating to other heritage assets within the Westgate Site have not altered and no additional description is required within this Addendum Chapter.

3.2 Period

3.2.1 Friaries are one of many monument types that characterise the medieval period. Within the context of urban friaries, the Oxford site is known to have been one of the earliest established following the arrival of the Franciscans in England and therefore one of the longest-lived, spanning the period from the 1220s to the 1540s.

3.2.2 The Oxford Franciscan Friary was one of three early centres recognised as a "*Studium Generale"* (i.e. a place of learning that received students from all places, that taught not only the Arts, but had at least one of the higher faculties - Theology, Law or Medicine - and where a significant part of the teaching was provided by Masters). It was one of three such *Studia Generalia* of the Franciscan Order in the 13th Century – together with Cambridge and Paris, and remained one of only such Franciscan studia in England throughout the Medieval period (one of seventeen within Europe as a whole in the 14th Century).

3.2.3 As an early and highly-regarded stadium, the Oxford Franciscan Friary is likely to have been influential intellectually within the Order, and this influence will be reflected in the material culture of the Friary site itself.

3.3 Rarity

3.3.1 Friaries are a relatively rare sub-class of medieval ecclesiastical monuments: approximately 189 friary sites are known to have existed in the Medieval period, and of these only 15 have substantial above-ground remains. The Franciscan Order had established approximately 60 friaries by the end of the Medieval period (Ref 13.2, p8).

3.3.2 The Oxford Franciscan Friary has additional rarity value as one of only two *Studia Generalia* in England (and one of only three early Franciscan *Studia Generalia* in Europe), with the attendant potential for material culture reflecting the national and international origins of students attracted to it. Its relationship and role at Oxford in

the early development of the University is only paralleled at Cambridge (the other Franciscan *Studium Generale* in England).

3.3.3 The Oxford Franciscan Friary precinct is also known to have been particularly large, and to have contained buildings / design features that were not typical, including two recorded libraries, and an unusual church layout by the end of the Medieval period which incorporated a 'north nave' housing ten chapels.

3.4 Documentation / Finds

3.4.1 The history of the Oxford Franciscan Friary has been relatively well studied; the surviving archaeological evidence has been examined through two programmes of limited investigation, undertaken between 1968 and 1976 prior to construction of the current Westgate Centre and in 2006 and 2007-8 as part of The Westgate Partnership's extant planning permission for the Westgate Centre and adjacent land.

3.4.2 The 1968-76 excavations focused particularly on examination of the Friary church site, at the south end of the existing Westgate Centre, but also included a series of trenches excavated across the expected cloister and building ranges to the south. The excavation findings were published in 1989 (Ref 13.4). The archaeological work has confirmed the reliability of some aspects of the late medieval documentary descriptions, and enabled a conjectural layout of the Friary church and precinct buildings to be produced (Ref 13.4, Figure 42).

3.4.3 Further archaeological trial trenching has subsequently taken place in connection with The Westgate Partnership's redevelopment proposals for the Westgate Centre and adjacent land (Oxford Archaeology 2006; Oxford Archaeology 2008; Ref 13.5 and 13.6). These works were principally intended to evaluate the degree of survival post-construction of the Westgate Centre and multi-storey car park, but have also provided useful additional information on the elements of the precinct layout and the current degree of archaeological survival. The locations of previous archaeological investigations are shown in Figure 13.1.

3.5 Group Value

3.5.1 The Oxford Franciscan Friary shares group value with the nearby site of the Oxford Dominican Friary to the south east. The two houses have a historical association through the Dominicans providing initial accommodation for the initial party of Franciscans arriving in Oxford in 1224, prior to the Franciscans moving to their own rented accommodation and the later establishment of the Friary site. The Dominican and Franciscan friaries had similar roles in relation to the early development of the university, and this early group value is further shared with the other friaries and religious orders represented within medieval Oxford, and the secular colleges and halls forming the University.

3.5.2 The Oxford Franciscan Friary also has a group value with regard to the medieval Town Defences of Oxford, because of the history and physical association of the Friary site with the town defences, with the Friary precinct replacing part of the southern town wall (documented both historically and archaeologically), and the likely line of the Late Saxon defences within the Westgate Site.

3.6 Survival / Condition

3.6.1 In common with the majority of urban friary monuments, there is no appreciable survival of upstanding remains. As discussed in the September 2013 ES, there is only

one confirmed area of surviving upstanding archaeology within the Friary site: the small group of church pier bases preserved beneath Sainsbury's.

3.6.2 The state of survival recorded in the 1968-1976 archaeological investigations / excavations prior to construction of the existing Westgate Centre was described as *"very heavily robbed"* [in destruction after the Dissolution of the Friary], with many of the footings having been completely removed, while the rest survived at the medieval ground level (Ref 13.4, p182). The depth of excavation required for subsequent construction of the Westgate Centre's basement and foundations removed surviving archaeological evidence of the friary church and areas to the north of the church that lay within the Centre's footprint (ibid). However immediately south of the existing Westgate Centre, some evidence for the southern half of the choir may survive.

3.6.3 South of the Friary church site, the cloister area was examined through two small area excavations adjacent to the south side of the church and a series of nineteen trenches excavated (largely) at a 45 degree angle to the presumed building orientation in this area, in order to *"find the general position of the domestic buildings south and west of the cloister"* (Ref 13.4, p150).

3.6.4 The condition and degree of survival of archaeological remains was examined subsequently through programmes of archaeological trial investigations, undertaken in connection with The Westgate Partnership's redevelopment proposals for the Westgate Centre and adjacent land (06/01211/FUL; renewed 10/00454/EXT). An initial programme of trial trenching carried out in 2006 prior to planning permission being granted (Oxford Archaeology 2006; Ref 13.5) included five trenches within the friary precinct area south of the existing Westgate Centre and within the current multi-storey car park. Additional trenches examined the archaeological and ecofact potential of the floodplain area to the south of the multi-storey car park. A second programme of trial works was carried out in 2007-2008 as an initial part of the post-consent programme of archaeological works in order to evaluate the degree of archaeological survival in both the floodplain and friary precinct areas in greater detail (Oxford Archaeology 2008; Ref 13.6).

3.6.5 The locations of the 1968-76 excavations and the 2006 / 2007-08 trial trenches are shown in Figure 13.1.

3.6.6 Significant findings and the identified Ordnance Datum (OD) height for surviving archaeology are summarised within Table 1 in the Supplementary Paper (Technical Appendix 13.1).

3.6.7 Structural remains associated with the Friary precinct were identified in the majority of the trenches excavated in the 1960s-1970s. Structural remains were also identified in five of the trial trenches excavated in 2006-2008.

3.6.8 More extensive evidence of wall foundations was recorded in the 2006-2008 trial trenches as robbed / foundation trenches. Evidence for wall footings, generally heavily robbed, had also been encountered in the earlier 1960s-1970s trenching work, although the limited areas exposed made interpretation uncertain. The conjectural layout plan produced following the 1960s -1970s investigations (Ref 13.4, Figure 42), used as the basis for the friary plan shown in Figures 13.2 to 13.4, provides a best-fit interpretation of the walls and surfaces recorded at that time, but additional features are anticipated.

3.6.9 Very limited evidence has been identified for the survival of in-situ floor surfaces within the Friary claustral ranges and ancillary buildings: two fragmentary floor tiles were identified within the cloister alley, immediately adjacent to the southern side of

the Friary church. Other than these, no areas of in-situ floors have been recorded. Localised evidence for mortar bedding layers, or for gravel layers which may represent occupation/working surfaces have been identified more widely in relative terms – particularly in the 1960s-1970s trenches - but survival of floor or occupation surfaces appears to be limited within the Westgate Site.

3.6.10 Archaeological deposits associated with the friary precinct appear generally to survive under aerobic conditions, although anaerobic, waterlogged, conditions were identified in the 2006-2008 trial trenching within the infilled Trill Mill Stream, to the south of the friary precinct (with preservation of organic material and timber revetments to the south bank of the steam recorded below 54.6m OD). Localised deeper feature fills within the friary precinct may therefore also contain waterlogged deposits, although evidence of such preservation is very limited from the trial trenching work – waterlogged deposits were identified in Trench 14 (at 54.3m OD) within a midden or pit fill; and in Trench 26 (at 54.5m OD) within a possible north-south drain or channel; however assessment of samples from a second potential waterlogged deposit in Trench 35 to the north did not identify any waterlogged plant remains.

3.6.11 Medieval archaeological deposits and features survive to 56.6m OD in the area of the current multi-storey car park. North of the car park, medieval archaeological features were identified at 57.5m OD in Trench 16 (in 2008), although this trench also showed truncation and damage by later development.

3.6.12 Medieval deposits beneath the multi-storey car park are overlain by post-medieval soils and remains of the former 19th century terraces of houses and the streets on which they were located. These can be shown to have caused localised truncation or removal of Medieval archaeology, but have not generally caused wholesale loss of information over large areas. The extent of damaging later development and truncation appears to be greatest in the northern part of the cloister area, adjacent to the friary church. This may reflect more intensive post-dissolution activity in this zone, but is also likely to reflect a shallower depth of burial of remains in this area.

3.6.13 Construction of the existing multi-storey car park has been shown to have caused further localised damage to earlier archaeological deposits, including buried evidence for the friary precinct. Information on existing foundations for the multi-storey car park and the existing Westgate Centre have been mapped with the locations of previous archaeological investigations and the conjectured friary layout (Discussed within the Supplementary Paper forming Technical Appendix 13.1 of this ES Addendum; also illustrated in Figure 13.2). This identifies a regular grid of piles, and linear foundations which have cut through the archaeological horizon. Some individual pile locations and linear foundations intersect known or conjectural wall lines, and will have removed previously surviving archaeological deposits at these locations. Excavation of other piled foundations, ground beams and deeper services are also anticipated to have directly impacted on archaeological deposits, causing localised destruction of archaeological deposits and some compartmentalisation and loss of horizontal stratigraphic relationships either side of linear foundations.

3.6.14 Comparison of current floor levels within the multi-storey car park and the upper horizon of medieval deposits identified in the trial trenches suggests that that the existing ground floor concrete slab of the car park has been formed within deposits datable to the 19th Century or the post-medieval garden soils, and has not caused any general reduction or truncation of underlying Medieval deposits. An indicative east-west cross section is shown in Figure 13.3. This should be read in conjunction with the equivalent north-south indicative transect previously prepared by Oxford

Archaeology (Ref 13.6, Figure 3 – additionally reproduced in Appendix 3 of the Supplementary Paper included as Technical Appendix 13.1).

3.6.15 Modern buried services are known to exist beneath Old Greyfriars Street and adjacent pavements. These include sewers, a gas main, and major electricity cables, which are anticipated to have been excavated sufficiently deeply to have truncated the medieval deposits. Other services including telecommunications cables within this area are not anticipated to been sufficiently deeply buried.

3.6.16 The extent of confirmed or predicted truncation is shown in Figure 13.4.

3.7 Fragility/vulnerability

3.7.1 The surviving archaeological remains are relatively stable under current conditions, but are at risk of damage from groundworks during demolition of existing structures and construction of new foundations and services.

3.7.2 Any waterlogged deposits surviving within deeper archaeological features, and waterlogged archaeological material in the area outside the direct footprint of the Proposed Westgate Development are vulnerable to desiccation and consequent loss of information as a result of dewatering without mitigation.

3.8 Diversity

3.8.1 Through reference to other medieval friary sites and the contemporary documentary descriptions of the Oxford Franciscan Friary itself, there is anticipated to have been a wide range of buildings, structures and features within the Friary precinct.

3.8.2 Varying degrees of survival and conditions of preservation have been identified, and these contribute to the significance of the monument – particularly when the adjacent Trill Mill Stream waterlogged deposits are taken into consideration.

3.9 Potential

3.9.1 The 1968-76 trial trenching enabled a conjectured partial layout of the Friary precinct to be defined. The trial trenching and the later 2006-08 investigations identified evidence of additional buildings to the west and south of the known Friary cloister.

3.9.2 With reference to other friary sites – both of the Franciscan and other Orders - and the range of activities anticipated to have been present within the large precinct of the Oxford Franciscan Friary, the presence of additional ranges and ancillary buildings is anticipated.

3.9.3 Similarly, information from other friary sites would suggest there is a likelihood of burials within the Friary precinct. Such burials might include the remains of resident friars, visiting students, and lay benefactors and have potential to inform on the physical health, age, and origins of these groups.

3.9.4 The documented reference to two libraries in the Franciscan Friary in the 16th Century may be met by the survival of physical remains of library building(s) – although it is unrealistic to anticipate unique confirming features to be identifiable from the anticipated survival of floor plans alone because of the absence of unique architectural or plan-form details that might be recognised without greater survival of superstructure than is present at the Westgate Site.

3.9.5 Recovery of relict material including architectural stonework, window glass, floor tile and roof tile from material discarded following the Dissolution of the friary has the

potential to provide information on the appearance, embellishment, and cultural associations of the former buildings.

3.9.6 The 2006-08 trial trenching identified waterlogged deposits underlying the southern part of the friary precinct. There is potential for waterlogged survival of friary period deposits within in deep features, and for contemporary evidence within the adjacent channel of the Trill Mill Stream to the south.

3.9.7 The September 2013 ES Chapter (in particular Paragraphs 13.52 and 13.54) provides an assessment of the heritage significance of the Friary. This recognises that the Friary has considerable heritage significance based on its historic interest, which was assessed as being of at least National importance. The preserved group of Friary church pier bases was assessed as being of National importance on the basis of their historic interest and commemorative value.

3.9.8 Surviving archaeological evidence in the area of the Friary church choir and south nave – i.e. the area immediately south of the Westgate Centre – have a National significance because of the potential for structural remains and burials, and the archaeological and historical interest of such evidence.

3.9.9 Surviving archaeological evidence of the friary precinct was previously assessed in the September 2013 ES as being of Regional – i.e. less than National – importance because of their lesser degree of intactness and archaeological interest.

3.9.10 South of the Westgate Centre, a relatively extensive ground plan of the Friary precinct and building ranges is anticipated to be recoverable although there is not extensive evidence for intact walls, and the archaeological evidence for the friary precinct structures is largely characterised by the backfilled trenches resulting from removal of walls and – in many cases – also foundation footings. The loss of the majority of walls and foundation footings diminishes the potential to reconstruct and understand the development of the Friary. Thus, while an overall ground plan of the precinct and church may be recoverable, the loss of many stratigraphic relationships between features reduces the evidential value of surviving archaeological features.

3.9.11 The surviving archaeological evidence for the Friary precinct and structures has been subject to localised truncation and removal by piles and wall foundations in the area of the existing multi-storey car park. In the area of the cloister attached to the south side of the friary church, more extensive truncation is recorded as a result of 19th Century development and earlier excavation of pits, and also by the insertion of drains and other utility services along the Old Greyfriars Street corridor. It has been noted above that some of the wall lines anticipated in the cloister area (from the pre-Westgate Centre trenches) were not identified in the 2006-8 archaeological trial works (Trench 19) – possibly as a result of truncation during construction of the existing Westgate Centre.

3.9.12 No in-situ floor surfaces have been confirmed in the 2006-8 trial trenching, although the presence of floor make-up/bedding layers or of occupation surfaces has been identified at a number of locations.

3.9.13 Waterlogged archaeological deposits have been identified within deeper features – underlying the precinct itself towards the southern part of the precinct, and more extensively in the adjacent Trill Mill Stream channel to the south of precinct.

3.9.14 The additional assessment provided above revises the assessment made in the September 2013 ES Chapter that the surviving archaeological evidence of the Friary is of Regional importance. Notwithstanding the partial truncation of the friary precinct by later demolition and development, the additional assessment above

indicates that surviving friary remains south of the Friary church make a major contribution to the archaeological interest and the significance of the Oxford Franciscan Friary heritage asset, and are assessed as being of National importance.

3.10 Predicted significant effects

3.10.1 With regard to the Oxford Franciscan Friary heritage asset (referred to in the September 2013 ES as 'Medieval Greyfriars complex'), none of the parameter plan changes will alter the magnitude or nature of the predicted changes (Paragraphs 13.71 and 13.72 of the September 2013 ES). It is anticipated that the demolition, ground reduction and excavation for foundations in the northern half of Block 3 will lead to the destruction of all remaining archaeological evidence within this part of the Block 3. This would result in a change to a high adverse magnitude.

3.10.2 However the revised assessment of the archaeological significance made in the Addendum Chapter establishes that these changes will affect a resource of National importance (revised from Regional importance). With reference to the methodology for considering potential effects set out in Paragraphs 13.23 – 13.27 of the September 2013 ES, a change of high adverse magnitude on a resource of National importance is assessed to have an effect of substantial significance. The significance of this effect is unaltered i.e. changes of high adverse magnitude on resources of National or of Regional importance are both assessed to have an effect of substantial significance.

4 WESTGATE CENTRE: THE ASSESSMENT OF REUSE OF PILES, REVIEW OF FOUNDATION DESIGN AND ENGLISH HERITAGE COMMENTS

4.1 Assessment of reuse of Piles

4.1.1 Information was requested on the technical feasibility and viability of preserving parts of the archaeological remains in situ. The illustrative scheme indicates that the formation of new lower ground floor slabs could be achieved without physical truncation of the Medieval archaeological horizons. Excavation of new piles and pilecaps would have a localised effect on surviving archaeological features and deposits.

4.1.2 The viability of re-using existing piles has been assessed by Waterman. A range of overlay drawings have been produced by Waterman to indicate the following situations, contained in Appendix 5: *Existing archaeology with existing multi-storey car park/Westgate Centre foundations (Drawings WSL B7 20 0008 and WSL B7 21 0060*)

4.1.3 This overlay is based on record information on both the existing multi-storey car park and Westgate Centre foundations and structural form. This information has been obtained from the existing Westgate Centre archive storage, OCC Building Control and CgMs. It indicates the depth of the archaeology being at approximately 600mm below the existing multi storey car park ground slab level and extending to a depth of 1500mm. The areas where existing piled foundations and ground beams have affected known/anticipated archaeology are noted. *Existing archaeology with existing multi-storey car park/Westgate Centre foundations and proposed foundations (Drawings WSL B7 20 0009 and WSL B7 21 0061)*

4.1.4 This overlay indicates the areas where proposed foundations and ground beams will effect archaeology remains. *Existing archaeology with existing multi-storey car park/Westgate centre foundations and existing permitted scheme foundations (Drawing WSL B7 20 0010)*

4.1.5 This overlay indicates the areas where proposed foundations and ground beams will affect the archaeology as part of the extant permission.

4.2 Limitations

4.2.1 Drawing number 651/20G by John A Tanner and Partners Consulting Engineers has also been provided by the OCC Archaeologist. This drawing shows the ground floor plan foundations and pile arrangement but is does not provide 'As-built' information. The drawing indicates the pile size, pile loads and cut off levels. It also notes typical information on pile reinforcement and concrete grade.

4.2.2 At this stage the Westgate Oxford Alliance design team are not in possession of design calculations, specific reinforcement, factors of safety, settlement criteria or toe lengths for any of the piles. The information contained on the drawings is generic and not clearly specific as to which piles it has been applied to.

4.2.3 The design team is fully aware of the content and information contained within the CIRIA Design Guide and the Reuse of Foundations for Urban Sites (a best practice handbook) 2006 document. The content within both and conclusions drawn are similar with respect to applicability of sites and individual elements for reuse and the amount of verification that will be required.

4.2.4 The existing drawing information available gives a good indication of the design capability of the existing foundations when undertaking alteration works but is not sufficient when considering total reuse. To be technically confident in the design criteria of the existing piles Westgate Oxford Alliance would require the original design calculations, as-built information, reinforcement details, concrete cube testing records or engineer signed off information. Without this information in order to verify the existing piled foundations the following testing criteria will be required to be undertaken on all piles:

- Concrete cores to the top and sides to confirm the concrete grade and ensure that no material deterioration has occurred.
- Integrity testing for any defects within the length of the piles.
- Load testing to verify the pile capacity over the installed length.
- Full length pile cores within a sample number of piles.

4.2.5 The above extensive testing is all necessary and will be required by the foundation contractor to provide a warranty for the design and overall life capability and insurance on these elements to Westgate Oxford Alliance. These issues will apply to any piling company undertaking the design and verification process and will be required by any developer for warranty purposes in accepting reuse of the elements.

4.3 Assessment

4.3.1 Notwithstanding the limitations identified above and the absence of detailed 'as-built' information, the available details nonetheless allow an initial review of the viability of re-using existing piles.

4.3.2 As is described within the CIRIA Design Guide and the Reuse of Foundations for Urban Sites (a best practice handbook), reuse is ideally suited to situations where the existing grids and loadings are similar to those proposed. There is no compatibility between the existing multi-storey car park and proposed illustrative grids, which is indicated in the overlay information. As can be seen on the attached Waterman plans (Drawings WSL B7 20 0009 and WSL B7 21 0061) the location of the existing piles does not correlate easily with the requirements for both position and carrying capacity for the piling arrangements to support the Proposed Westgate Development. An extensive arrangement of ground beams to support the proposed column positions would be necessary in conjunction with a number of additional new piles located in the area of the existing piles.

4.3.3 The existing pile loads are noted as being in the order of 1450kN-1750kN, whilst the new required loads are in the order of 5000kN. Therefore additional piles will be necessary for the new building. The proposed loads are concentrated at column positions and will need to be directly supported by piled caps or transferred using ground beams to the existing pile locations where additional piles will need to be introduced.

4.3.4 The loading requirements to support the new columns are significantly in excess of the anticipated capacity of the existing piles and therefore new piles will be required. If new and existing piles are to be combined into groups within pile caps then the properties need to be kept similar to ensure an even distribution of loading and settlement. In this case it could result in a greater number of additional piles. Westgate Oxford Alliance would wish to avoid combining groups of existing and new piles due to differential and overall settlement characteristics between the elements. As described previously, the exact perimeters of the existing piles (once known) will be matched to the proposed piling arrangement to ensure that loads are evenly distributed within the new pile groups.

4.4 Conclusion

4.4.1 Due to the depth of the archaeology being at approximately 600mm below the existing multi storey car park ground slab level and extending to a depth of 1500mm below, it will be extremely difficult to create a structural solution and ground beams arrangements that avoid any impact on the existing archaeology. The loads that need to be supported by the ground beams mean that the required depths will be in excess of the clear zones available between the proposed structural slab level and the top of the archaeology.

4.4.2 Demolition of the existing single pile caps to create the new piled group arrangement will affect the top of the existing piles requiring remedial works and deeper caps to be introduced.

4.4.3 The Westgate Oxford Alliance team concludes that reuse of existing piles – and consequent requirements for new ground beams – would result in more extensive truncation and damage to surviving archaeology on the site, than would result from excavation of new piles.

4.4.4 The Proposed Westgate Development aims to leave the existing piles in situ to avoid any disturbance of the ground within the locality.

4.5 Mitigation

4.5.1 The feasibility review above has established that it would be extremely difficult to create a structural solution and ground beams arrangements that avoid all effect on the existing archaeology. The loads that need to be supported by the ground beams mean that the required depths will be in excess of the clear zones available between the proposed structural slab level and the top of the archaeology.

4.5.2 Reuse of existing piles – and consequent requirements for new ground beams and remedial works - would result in more extensive truncation and damage to surviving archaeology on the Westgate Site, than would result from excavation of new piles, and would not avoid or mitigate the adverse effects of the Westgate Development.

4.5.3 As discussed in the September 2013 ES Chapter and the January 2014 ES Addendum Chapter, Westgate Oxford Alliance accept the need for extensive archaeological works to investigate and record the Oxford Franciscan Friary precinct. The extent and scope of the archaeological investigation works in this area will be subject to final details of design for Block 3, particularly with regard to formation levels for the lower ground floor level and details of piled foundation design. Details of final floor and formation levels and pile layout have the potential to significantly reduce the extent of further damage/destruction of archaeological remains in this part of the Westgate Site.

4.5.4 Options to avoid development effects on surviving archaeology are less feasible in the area proposed for new basement levels and for the new Trill Mill Stream culvert.

4.5.5 The following section outlines a potential strategy to manage the loss of surviving archaeological interest, where the effects of the proposed Westgate development cannot be avoided. This will form part of a programme of archaeological works to be implemented.

4.6 Pre-investigation of secant pile wall lines

4.6.1 The lines of secant pile walls for the new basements will be subject to pre-construction archaeological assessment and monitoring.

4.6.2 Initial trench excavation to remove buried obstructions within the line of the secant pile walls will be carried out under constant archaeological supervision.

4.6.3 Provision will be made for temporary suspension of mechanical excavation and for establishment of a safe working environment to enable archaeological investigation and recording of any exposed archaeological features prior to their removal.

4.6.4 All archaeological features and deposits revealed will be planned, and where excavated their sections drawn at an appropriate scale.

4.7 Comment from senior EH Science Adviser

4.7.1 The section on foundation re-use does seem to indicate that this won't be a viable option, particularly given the significantly greater loads that the new building requires (approximately 3 times the current load), and the problems caused by the incompatibility between the current building orientation and that of the proposed scheme. Nonetheless, the assessment does conclude that it would be technically feasible, but that more / new piles would still needed and further foundation elements, such as transfer structures would be essential too; these would cause damage to below ground archaeological deposits. In that regard, re-use would seem to potentially cause more damage to the archaeological deposits. Equally, due to that lack of 'as built' information, significant testing and verification would be needed during the construction phase, causing additional costs and significant delays which the ES addendum suggests would make the scheme economically unviable. Although the whole section on foundation re-use seems short, it is clear that considerable thought has been given to this proposal, to the extent that it would appear, from my reading, to be technically, if not archaeologically or financially feasible. I feel that you have probably taken this aspect of site preservation as far as it can go. It do think it was a worthwhile avenue to pursue, as in different circumstances, it might have been an ideal solution, and one which would reduce the need for further below ground impacts.

4.7.2 Finally, although you had only asked for my view on the foundation re-use issues, I would just add that the proposed pile layout over the friary precinct (underneath and to the north east of the car park) seems likely to cause significant further damage to any surviving archaeological remains in this area, and I think it would be hard to argue that this piling layout (in terms of spacing and layout) could be used as part of a preservation in situ scheme. The use of pile groups effectively renders the areas in between the piles archaeologically illegible, and in combination with the existing piles in the car park, would make future excavation very difficult. If preservation in situ were to be considered in this location, I would expect to see far few piles that would have to be much bigger, thereby leaving in place and undisturbed, much larger areas of the site for future investigation.

5 APPENDIX A WESTGATE CENTRE: THE PUBLIC BENEFIT CASE- NPPF PARAGRAPH 133 STATEMENT

5.1 Introduction

5.1.1 The ES Chapter 13 (Archaeology) (September 2013) and associated ES Addendum (January 2014) describe the archaeological baseline within the Westgate Site in detail and the significance of the designated and undesignated heritage assets. As required by the National Planning Policy Framework (NPPF, 2012) the level of detail provided is proportionate to the importance of the assets and enables an understanding of the potential effect of the Proposed Westgate Development on its significance.

5.1.2 ES Chapter 13 and its Addendum also discusses the extant planning permission for the Westgate Site (OCC application ref: 10/00454/EXT) and, if implemented, the significant effect on archaeology.

5.1.3 The Supplementary Paper (Technical Appendix 13.1 of ES Chapter 13's Addendum) explains that the construction of the proposed basement car park in the southern half of Block 3 and the construction of the Trill Mill Stream culvert diversion along the north side of the proposed basement car park will remove all archaeology within their footprints.

5.1.4 Construction of the lower ground floor in northern half of Block 3 will not in itself have an effect on archaeology within its footprint, however the cumulative effect of excavation for new piled foundations and previous piling and development will result in a substantial effect on the significance of surviving archaeology.

5.1.5 NPPF Paragraph 132 notes that "*as heritage assets are irreplaceable, any harm of loss should require clear and convincing justification*".

5.1.6 NPPF Paragraph 139 notes that "*non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets*". This applies to the Friary remains at the Westgate Site.

5.1.7 NPPF Paragraph 133 requires that "*where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:*

- *the nature of the heritage asset prevents all reasonable uses of the site; and*
- *no viable use of the heritage asset itself can be found in the medium term through*
- *appropriate marketing that will enable its conservation; and*
- *conservation by grant-funding or some form of charitable or public ownership is*
- *demonstrably not possible; and*
- *the harm or loss is outweighed by the benefit of bringing the site back into use.*

5.1.8 None of these exceptions apply to the Proposed Westgate Development and this justification statement therefore demonstrates that the substantial harm or loss to

archaeology on the Westgate Site is necessary to achieve substantial public benefits that outweigh that harm or loss.

5.1.9 The structure of this justification statement is based on the three sustainable development facets (economic, social and environmental). The draft National Planning Practice Guidance (CLG, 2013) states that 'public benefits' can be anything that deliver economic, social or environmental progress as described in paragraph 7 of the NPPF:

- ***economic role*** *– contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;*
- ***social role*** *– supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and*
- ***environmental role*** *– contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.*

5.2 Principle of development supported

5.2.1 The principle of a significant retail-led mixed use development at this City Centre site is well established, as confirmed by OCC officers in their pre-application planning responses (17 July and 25 October 2013) and through the extant planning permission. Adopted local planning policy designations clearly demonstrate that the retail-led mixed user redevelopment of the Westgate Site is established and supported.

5.2.2 The site specific planning policy designations are as follows (as defined on the adopted Core Strategy's Proposals Map and in the West End Action Area Plan (AAP)):

Designation	Relates to whole or part of Westgate Site
Identified Development Site	20 Westgate Shopping Centre. Indicative uses: retail (primary use) and flats, public space, food and drink (secondary uses) Whole City Centre Commercial Area Whole West End Whole Primary Shopping Area, Westgate Centre, multi-storey car park, Abbey Place car park

5.2.3 Core Strategy Policy CS5 relating to Oxford's West End outlines that planning permission will be granted for development that includes, along with other elements, the following:

- *significant housing provision (approximately 700 – 800 dwellings);*
- *retail floorspace (at least 37,000 sq m);*
- *new leisure and cultural attractions;*
- *a high quality network of streets and public spaces.*

5.2.4 Paragraph 3.5.9 of the Core Strategy continues by outlining the future development potential of Oxford City Centre as follows:

> *'The city centre will continue to be the main focus for developments servicing a much wider catchment than the city itself. Uses are encouraged that support its role as a Centre for Significant Change, including major retail, leisure, cultural and office development. It is appropriate for higher-density development, subject to the need to protect and enhance the character and setting of Oxford's historic core, and to deliver a high-quality public realm.'*

5.2.5 The Core Strategy acknowledges the extant permission (OCC application ref. 10/00454/EXT) for 'alteration, refurbishment, part re-development and extension of the existing Westgate Centre to provide new retail and residential accommodation within Use Classes A1,A2,A2,A4,A5,C3 and D1, erection of a replacement car park at Abbey Place (1,335 spaces) and new access onto Thames Street, provision of new bus facilities and a bus priority route, environmental improvements to the public realm, associated highway, access and landscape works and other associated works and uses' on the site as a committed development.

5.2.6 It is worth noting that if the extant permission was implemented it would result in removal of substantial areas of surviving archaeology from the areas south of the Westgate Centre. The loss of archaeology would be more extensive than required as part of the Proposed Westgate Development. The Westgate Site is an identified development site (Site 20) within the West End AAP. The Westgate Site is a central part of the West End and the AAP (and its predecessor the West End Area Development Framework, 2005), which refers to the proposed development that is the subject of the extant permission for the site and supports the retail-led mixed use redevelopment of the Westgate Site (in accordance with the Core Strategy).

> *The adopted local planning policy for the Westgate Site seeks to achieve the economic role of sustainable development i.e. "contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure."*

5.3 Economic benefits

Identified need for retail floorspace

5.3.1 Oxford is identified in the development plan as a regional centre. Due to lack of investment in the City Centre, Oxford is declining in the hierarchy of retail centres. This is because it does not provide the appropriate type of accommodation for retailers that want to have a presence in the City Centre (as confirmed by PROMIS, April 2013, identifying over 50 retailer requirements for Oxford - which is also expected to increase should permission be granted for Westgate).

5.3.2 The location and form of the Proposed Westgate Development will strengthen Oxford City Centre as a retail and leisure destination. In line with the objectives of the Core Strategy, it will provide significant additional retail floorspace that will assist in preventing the continuing decline in Oxford's regional role. Critically it will provide modern retail floorspace that is currently lacking (as acknowledged by OCC's Retail Need Study Update 2008 RNSU) and will help to strengthen the long-term vitality and viability of Oxford and improve consumer choice.

5.3.3 The September 2013 Retail Statement which forms part of the planning application reviews the current role of Oxford City Centre as a retail destination. In Section 2, it highlights that Oxford is currently ranked 42nd in the hierarchy of centres and has fallen in ranking from 33rd in 2009. Oxford also sits behind a number of competing centres, including Reading (14th) and Milton Keynes (29th) and below comparable

centres in terms of profile, such as Bath (20th), Cambridge (34th) and Chester (35th). Furthermore, since 2009, centres such as Reading, Milton Keynes and Bath have all seen a rise in ranking (Source: VENUESCORE April 20131). This reflects the fact that new retail development has come forward in these centres whereas there has been no significant investment in the retail offer of Oxford City Centre during this time.

5.3.4 In planning policy terms, the Westgate Site represents appropriate City Centre development. The Proposed Westgate Development is entirely consistent with the 'town centre first' principle underpinning retail planning policy at all levels, as demonstrated in Chapter 8 of the September 2013 Planning Statement and Chapter 4 of the January 2014 Planning

Statement Addendum.

5.3.5 The residential and leisure floorspace proposed will assist in providing a retail-let mixed-use development which would extend the operational hours of the Westgate Site and increase dwell times in the City Centre thereby facilitating the vitality and viability of the Proposed Westgate Development and wider City Centre throughout the day.

5.4 Provision of infrastructure

5.4.1 The Proposed Westgate Development responds to the many physical constraints including:

- removing the site from flood risk;
- addressing on-site contamination; and
- diverting the existing Trill Mill Stream culvert).

5.4.2 In addition, the Proposed Westgate Development maximises opportunities including: providing a retail-led development reflecting the regional requirements of the City; and increasing public awareness and understanding of the Westgate Site's heritage and views out to the wider City Centre and countryside.

5.4.3 The Proposed Westgate Development will provide a significantly improved public car parking facility that will replace the existing poor quality surface and multi-storey car parks and meet the Park Mark Standard which is part of the Safer Parking Scheme, an initiative of the Association of Chief Police Officers aimed at reducing crime and the fear of crime in parking facilities. Park Mark is awarded to parking facilities that have met the requirements of a risk 1 prepared by the Javelin Group which provides an index of more than 2,700 centres within the UK, including city centres, stand-alone malls, retail warehouse parks and factory outlets. These requirements mean the parking operator has put in place measures that help to deter criminal activity and anti-social behaviour, thereby doing everything they can to prevent crime and reduce the fear of crime in their parking facility.

5.4.4 A series of highways measure will also be in place to manage those that visit the City Centre by car. Measures seek to promote access to the Westgate Site (and the City Centre) by buses (local, regional and Park and Ride) and bicycle. A variable message signage system will be in place that advises car drivers of the capacity of car parks before they reach the City Centre. This seeks to encourage the use of park and ride when car parks are at or near capacity. Travel Plans will also provide another means of delivering sustainable transport modes.

5.4.5 An Outline Energy Strategy forms part of the planning application and advises: the Proposed Westgate Development would achieve an 11% reduction in regulated CO2 emissions beyond the requirements of Building Regulations Part L 2010; which is

more than twice OCC's Natural Resources Impact Analysis Supplementary Planning Document's (NRIA SPD) "target standard" for a 5% reduction; when compared against the existing Westgate Centre, it is anticipated that the Proposed Westgate Development has the potential to achieve 40% reduction in regulated CO2 emissions per square metre, which is equivalent to the ambitions of Low Carbon Oxford to achieve a 40% reduction in CO2 emissions relative to a 2005 baseline; when considering the Proposed Westgate Development's low zero carbon (LZC) contribution to on-site regulated energy demand, it will be able to achieve the NRIA SPD's target of 20% contribution to energy demand from LZC technologies (which are likely to include combined heat and power and/or heat pumps and/or roof-top photovoltaics).

5.4.6 WOA will ensure that the public utilities network has sufficient capacity to accommodate the needs of the Proposed Westgate Development.

5.4.7 As discussed later in this paper, the pedestrian links with the surrounding area (including Castle Quarter and the Oxpens Master Plan site) improved as part of the Proposed Westgate Development.

5.5 Catalyst for regeneration

5.5.1 The Proposed Westgate Development represents a significant £500mn private investment in to the City Centre. This will:

- make a significant contribution to improving the regional status of Oxford;
- assist in providing commercial confidence to other landowners, stakeholders and investors and act as a catalyst for the regeneration of other development sites in Oxford's West End (such as Oxpens), the City Centre and the wider city including the emerging rail station masterplan;
- provide enhanced retail and leisure facilities within the City Centre which will reduce expenditure 'leakage' out of the City and encourage more existing shoppers to stay for longer periods. Additional expenditure in the City will further enhance the trading vitality and viability of the City Centre;
- reduce the artificially high retail rents which currently prevail due to the lack of supply of floorspace/ appropriate units.

5.5.2 WOA is a major long term, committed stakeholder in the City Centre and will continue to work with the West End Steering Group and 'town team' to improve the City's offer and shoppers/visitors experience.

5.6 Social benefits

Employment

5.6.1 At this Outline stage it is estmated that the following jobs will be provided by the Proposed Development (which comprises the Proposed Westgate Development, Proposed Oxpens Development and Proposed Redbridge Development):

- Construction jobs over the three sites: over 600 jobs per year in the supply chain over a three year period; and
- Operational phase of Proposed Westgate Development: up to 3,790 new jobs (full time equivalents).

5.6.2 This represents a significant beneficial effect at the local and wider level. These employment figures do not take into account the potential wider knock-on effects to the city and supply chains and which would be expected from a development of this nature.

5.6.3 WOA has a proven track record in running successful employment and training schemes in similar retail-led development in other towns/cities. A skills training scheme will be in place for Westgate and WOA will work with existing stakeholders such as the Local Enterprise Partnership, Oxfordshire County Council's economic development team and Oxford and Cherwell Valley College. An objective of the scheme will be to maximise the opportunities available to local people.

Homes

5.6.4 The Proposed Westgate Development will provide between 27-122 new homes that will add to the housing stock available within the City Centre and provide high quality housing in a highly sustainable location.

5.6.5 The increased population will also increase spending in the City Centre and increase activity throughout the Westgate Site throughout the day and provide natural surveillance.

Heritage

5.6.6 Carrying out the archaeological investigation and recording works will increase understanding and appreciation of this part of Oxford's medieval heritage.

5.6.7 Agreement and adoption of a strategy for public engagement during the course of archaeological investigations, and provision of materials will provide further public access to and understanding of this part of Oxford's archaeological heritage. The value and benefits of such public engagement are highlighted in OCC's Oxford Archaeological Action Plan (p.19), and encouraging public engagement is identified in the Plan as an Action Plan for OCC's Heritage and Specialist Services Team (Action point 9, p31). page 7 of 10

High quality design

5.6.8 Five world class architects will design the buildings, the details of which will be submitted at the Reserved Matters stage. The Development Principles and Public Realm Principles that form part of the current Outline application commit to delivering a high quality development.

5.6.9 The Proposed Westgate Development will re-establish an appropriate street pattern and urban grain in this part of the City Centre. Public realm and landscaping will be intrinsically progressed as part of an overall strategy for the Westgate Site and wider City Centre.

Permeability and legibility

5.6.10 Accessibility through the Westgate Centre and wider site and connections with the existing pedestrian route network surrounding the Westgate Site (to the wider City Centre, Oxpens and the rail station) is currently limited and hinders the permeability and legibility of the area.

5.6.11 As demonstrated by the commitments provided in Parameter Plan 19, Development Principles DP5a and 5b and the Public Realm Principles, the Proposed Westgate Development will increase and strengthen the permeability of the Westgate Site and make new connections with the surrounding areas of the City Centre (including Castle Quarter) and the Oxpens Master Plan site. This includes delivering a series of new routes improving both east to west and north to south permeability, as follows:

- Norfolk Street to Thames Street (24 hour);

- Pennyfarthing Place to Castle Quarter (18 hour);
- Turn Again Lane to Paradise Square (24 hour); and
- Rose Place (via Albion Place) to Abbey Place (24 hour).

5.6.12 WOA is also committed to the Proposed Westgate Development being accessible to all. David Bonnett Associates, an architectural access consultancy specialising in inclusive design, is part of the WOA team.

Public spaces

5.6.13 The Proposed Westgate Development will provide two new public squares which, as detailed in the accompanying Illustrative Masterplan and Illustrative Landscape and Public Realm Strategy and Public Realm Principles document are well connected to the existing and proposed route network.

5.6.14 Each of the squares are characterised as follows:

- Middle Square – a covered transition space, connecting the lower and upper ground levels and receiving two of the east-west routes; and
- South Square – a retail focussed public destination space which is able to accommodate temporary events and exhibitions which can involve the local community.

5.6.15 Three pocket green spaces are also proposed:

- Greyfriars Place – a gateway from Turn Again Lane and Old Greyfriars Street;
- Castle Mill Place – a pocket green space adjacent to the Castle Mill Stream. A gateway from the riverside and Oxford and Cherwell Valley College to the west; and
- Riverside – new riverside walks along Castle Mill Stream, connecting Castle Quarter to the north and Oxpens and Oxpens Meadow to the south.

5.6.16 These will address an existing deficit in the City Centre.

Heritage

5.6.17 The Proposed Westgate Development provides the opportunity to understand the heritage of the area more fully including the Oxford Franciscan Friary and 'town' wall.

5.6.18 Planning condition(s) will require the investigation and recording of archaeological remains at the Westgate Site. Any information gathered by WOA about the findings and significance of the historic environment will be publicly accessible.

5.6.19 The Proposed Westgate Development will also provide opportunities for the public to appreciate the views of the City Centre and wider countryside.

Sustainable transport

5.6.20 Oxford is a congested City Centre and the Proposed Westgate Development provides a series of highways measures to improve and encourage access by non-car modes of travel. Measures include: a significant increase in cycle parking on site and in the wider City Centre; the introduction of more bus stops in the City Centre at the Westgate Site; a new taxi pickup/ drop-off facility; and promotion of the existing park and ride facilities.

5.6.21 WOA is working with the bus and coach operators and Oxfordshire County Council to provide appropriate services/facilities to serve the City Centre.

5.7 Environmental benefits

Appearance

5.7.1 The Proposed Westgate Development will provide a high quality retail-led mixed use development which will be designed by world-class architects in conjunction with ongoing dialogue with OCC, Oxfordshire County Council and the recently commissioned Oxford Design Review Panel.

5.7.2 As discussed earlier, a key objective of WOA is to develop a high quality designed scheme. This will be a well-considered contemporary development that is unique to Oxford and reintroduces an appropriate grain to this part of the West End.

5.7.3 The Proposed Westgate Development will improve the townscape character and visual amenity of the Westgate Site.

Accessibility

5.7.4 WOA seeks to maximise the potential of this highly accessible, sustainable City Centre location and improve permeability, legibility, accessibility and social inclusion.

Ecology

5.7.5 The Westgate Site has limited ecological value with the greatest area of significance at Castle Mill Stream. A new pedestrian footpath along Castle Mill Stream will increase public access. The design will however seek to minimise any adverse effect on existing ecology.

5.7.6 As discussed in the September 2013 Environmental Statement (ES) and January 2014 ES Addendum (Ecology Chapter), opportunities for ecological enhancements along Castle Mill Stream will be undertaken during the operational phase. Bat and bird boxes will also be provided in appropriate locations throughout the Westgate Site.

5.7.7 A well-considered soft-landscaping strategy will also be pursued for the Westgate Site.

Flood risk

5.7.8 The Westgate Site is located within Flood Zones 1, 2 and 3 and is therefore considered to be at a low to high probability of tidal and fluvial flooding.

5.7.9 As demonstrated in the September 2012 Flood Risk Assessment (FRA) and January 2014 FRA Addendum, the Proposed Westgate Development effectively removes the Westgate Site from flood zones 2 and 3. The occupants of the Westgate Site would therefore remain safe in the event of a fluvial flood scenario. The proposed flood compensation measures ensure that flood risk is not increased to others as a result of the Proposed Westgate Development.

Sustainability Strategy

5.7.10 The Proposed Westgate Development aspires to deliver the highest practical standards of sustainability be meeting and where possible exceeding policy requirements.

5.7.11 The energy targets have been discussed earlier at Paragraph 18.

5.7.12 For the commercial elements of the Proposed Westgate Development, WOA commits to the BREEAM rating Excellent for Block 1 and seeks to achieve BREEAM rating

Excellent for all other blocks, with a commitment to achieving BREEAM Very Good. For the residential units, Code for Sustainable Homes Level 4 will be achieved.

5.7.13 The Proposed Westgate Development will also contribute to sustainable development during construction: through the procurement of materials and waste management; within the design through energy efficiency and the use of renewable energy technologies; and promoting sustainable transport, biodiversity and social and economic benefits.

5.7.14 The Sustainability Statement that forms part of the application captures the sustainability objectives that will guide the design for the Proposed Westgate Development. The following comprehensive list of principles will be considered:

- Community engagement and facilities
- Health and wellbeing
- Effective management
- Responsible use of materials
- Minimisation of waste
- Reducing energy demand and CO2 emissions
- page
- Pollution control
- Minimising water use
- Managing flood risk
- Improving ecology and biodiversity
- Sustainable transport

Delivery

5.7.15 WOA is fully committed to delivering the Proposed Westgate Development. Should outline planning permission be secured it is WOA's intention to immediately progress with the detailed design

Appendix B: RADCLIFFE INFIRMARY BURIAL GROUND

Contents:

6 RADCLIFFE INFIRMARY BURIAL GROUND: 2010 ADDENDUM TO THE ORIGINAL CONSERVATION PLAN BY PURCELL MILLER TRITTON ASSESSING SIGNIFICANCE

- There is an enormous potential for further research into hospital burial grounds, were the time and funding available.
- There clearly have been large numbers of hospital burial grounds and cemeteries in the 18th and particularly the 19th Centuries and that a good number of these survive. There would not appear to be anything unique in the Radcliffe Infirmary burial ground as this is likely to have been replicated in many institutions across the country.
- When other institutions such as workhouses and asylums are included the number of burial ground increases greatly and the potential for their survival undisturbed also increases.
- The known number of burials in this site is 195 from the 1815 -55 records. Only a single record has been located for the burials between the consecration in 1770 and 1815 so there may well be a good number of additional burials. The figure of 700+ is an estimate by MOLAS based on the number of bodies found in a trial trench. This is a speculative way of estimating numbers with a very wide margin of error.
- The large amount of building on the Infirmary site in the 19th and 20th Centuries has entirely divorced the burial ground from the Infirmary building and any significance of the relationship between the two is derived from historic plans.
- The building on the site has covered over a good deal of the original burial ground. This building work appears to have left any bodies in place and these burials are clearly very disturbed by this work.
- There does not seem to have been much interest in hospital, infirmary, asylum or workhouse burial grounds to date. There is no obvious academic literature that we have been able to locate which examines their heritage significance.
- Of the examples we have located the majority have retained their burial grounds, albeit they have often become separate entities and used for different purposes. These uses appear to have been shaped by their open character and need to preserve the burials underneath: open spaces, gardens, orchards, even storage yards. This is not the case at the Radcliffe Infirmary where much of the original burial ground has been built over in the late 19th and 20th centuries.
- The general practice of burying the bodies without any means of identification (no coffin, no headstone) prevents individual skeletons being related back to the records of particular individuals.
- The work that has been done on burial grounds suggests that as nothing remains above ground it is only by excavation that one can understand the significance of the burials. This significance is probably greatest in terms of medical history (evidence of post mortem dissection, removal of teeth, possible cause of death

etc.). This significance will only become apparent with excavation and the significance will not be diminished by the skeletal remains being taken to a new location after proper recording.

- Our provisional conclusion is that not a great deal more can be learnt about the relative significance of the site without a disproportionate amount of additional research work. There appear to be a large number of survivals of similar burial sites and this does tend to diminish the significance of this particular site. There does not seem to have been any particular value attached to most similar sites as they have been freely developed in the past. There is also a good argument to suggest that any significance of the burial ground is likely to be increased by the excavation of the site when the number of the burials can be more accurately determined and more can be learnt about the medical condition of the burials

7 RADCLIFFE INFIRMARY BURIAL GROUND: UNIVERSITY ESTATES DEPARTMENT SIGNIFICANCE ASSESSMENT JULY 2010

7.1.1 The study of cemeteries and burial grounds in the UK is an area which has not been fully explored, and there is much still to be learned: *"Our appreciation of these special places is still developing, and the sheer scale of the resource has prevented the completion (or revision) of detailed consideration of all cemeteries"* (EH 2007). While there is a reasonable amount of information regarding the history of the Radcliffe Infirmary burial ground, gathering evidence for other surviving infirmary burial grounds would be an onerous task, and one which would require a substantial amount of detailed research.

7.1.2 The Radcliffe Infirmary Conservation Plan for the site compiled a provisional list of 43 18th century hospitals (including voluntary, non-voluntary and naval), with the likelihood of further examples that were not recorded. The majority of these sites would have had their own burial ground adjacent or nearby, or would have been granted space in a local parochial cemetery. Determining the history and potential survival of these burial grounds would necessitate excessive disproportionate level of research, such as accessing burial registers (where available) and carrying out in-situ investigations in order to even attempt to understand the extent of burials. Determining the physical size and present condition would require a site inspection, and in most cases it is unlikely that a clear picture of their significance would emerge without some archaeological excavation.

7.1.3 While there is reasonable information on the Radcliffe Infirmary burial ground which contributes to an assessment of significance, there is a considerable lack of information regarding the wider context of other historical burial grounds. In order to provide a rational baseline for comparison, an initial search of various resources was carried out including the Victoria County Histories, British History Online, National Archives Database, English Heritage Listed Buildings Online & Viewfinder, National Monuments Record, and Archaeological Data Service.

7.1.4 Within a comparative assessment of these kinds of burial grounds, there is argument for including other types of sites such as Asylums and Specialist Hospitals, both of which have the potential for providing further information about pathology and medical practice. To a lesser extent workhouses could be included within an assessment, as all of these burial grounds have the common characteristic of containing unclaimed bodies – either with no association to a parish or family, or with little money. Often the bodies were buried without coffins and most did not have gravestones.

7.1.5 When considering all these types of cemeteries, the potential for discovering surviving examples rises significantly. Many workhouses have survived through conversion to other use, and their location, often just outside of cities and towns, means that the burial grounds are much more likely to have remained undisturbed.

7.1.6 A distinction should be made between hospital 'burial grounds' and 'cemeteries'. During the 18th and early 19th century, many hospitals did not accept high risk cases such as pregnant woman, young children and people with infectious diseases. However, the creation of fever wards, hospitals for children and the poor, and changing policies on accepting more types of patients, the risk of death in the hospital increased and with it the need for a place for unclaimed bodies. These infirmary burial grounds were the domain of unclaimed bodies and disarticulated remains (remnants of amputations). In contrast to these were 19th century hospital 'cemeteries' which were used, either additionally or solely, for the burial of staff, doctors, nurses or wealthier patients who could afford coffins or headstones; these sites often provide more usable archaeological data as the skeletal remains can be matched to biographical information via headstones or other records.

Evidential value: the potential of the physical remains to yield evidence of past human activity. This might take into account date; rarity; state of preservation; diversity/complexity; contribution to published priorities; supporting documentation; collective value and comparative potential.

◊ Controlled archaeological excavation and analysis of the site would provide a medium-sized osteological assemblage that could have both collective value and contribute to comparative studies of the limited 18th/19th century infirmary assemblages that have previously been excavated (see sites listed in section 2.4). The opportunity to examine a carefully recorded and archaeologically recovered cemetery of this date with anatomical evidence is relatively unusual as most have not been investigated and there is good potential for comparison with other assemblages, particularly from other infirmaries of a similar date. There is also the potential for an examination of treatment within the infirmary and evidence of medical care.

Historical value: the ways in which past people, events and aspects of life can be connected through heritage asset to the present, such a connection often being illustrative or associative.

◊ There is limited value in the site but if excavated the significance of the human bone assemblage recovered from the site would contribute to studies of the development of modern medical teaching and the historic and social attitudes to anatomical teaching. Excavation of the infirmary burial ground could provide direct evidence of a period in the social history of Oxford and has great potential for the examination of past health, social and medical history.

Communal value: this derives from the meanings of a heritage asset for the people who know about it, or for whom it figures in their collective experience or memory; communal values are closely bound up with historical, particularly associative, and aesthetic values, along with and educational, social or economic values.

◊ The archaeological remains are undoubtedly of local significance as the Infirmary played an important role in the social history of Oxford. Excavation of the burial ground may reveal details of the previous population in Oxford and contribute towards the communal history of Oxford, although evidence for named individuals is considered unlikely. As mentioned above, excavation of the infirmary burial ground could provide direct evidence of a period in the social history of Oxford.

Period: all types of monuments that characterise a category or period should be considered for preservation.

- ◊ Although the infirmary burial ground categorises a particular period (the 18th and 19th century) in terms of the infirmaries and burial ground's usage, it is not unique or a rarity as other examples of this date exist. In addition it is noted that the area has been truncated by development since the closure of the burial ground.

Rarity: there are some monument categories which in certain periods are so scarce that all surviving examples which still retain some archaeological potential should be preserved. In general, however, a selection must be made which portrays the typical and commonplace as well as the rare. This process should take account of all aspects of the distribution of a particular class of monument, both in a national and a regional context.

- ◊ A number of other burial grounds of similar usage and date exist and are discussed in sections 2.3 and 2.4. This includes a number of unexcavated infirmary and hospital burial grounds and some that have been archaeologically investigated and produced medical specimens that are themselves a rarity.

Documentation: the significance of a monument may be enhanced by the existence of records of previous investigation or, in the case of more recent monuments, by the supporting evidence of contemporary written records.

- ◊ It is known that some records relating to the infirmary burial ground establishment exist. . However it is unlikely that such documentation would enhance the significance of the site as the evaluation indicates that the burials were not identifiable.

Group Value: the value of a single monument (such as a field system) may be greatly enhanced by its association with related contemporary monuments (such as a settlement and cemetery) or with monuments of different periods. In some cases, it is preferable to protect the complete group of monuments, including associated and adjacent land, rather than to protect isolated monuments within the group.

- ◊ The site does exhibit group value with some of the extant infirmary buildings to be retained on the Radcliffe Infirmary site however as the burial ground is no longer defined this, in part, negates the impact of its group value.

Survival/Condition: the survival of a monument's archaeological potential both above and below ground is a particularly important consideration and should be assessed in relation to its present condition and surviving features.

- ◊ No extant evidence of the burial ground survives although recent evaluation of the site indicated that areas of the boundary wall foundation survive below ground. The primary survival on the site is that of the burials which are currently considered to be in relatively good osteological condition, however this is not atypical of such burial ground sites dated to the 18th to 19th century.

Fragility/Vulnerability: highly important archaeological evidence from some field monuments can be destroyed by a single ploughing or unsympathetic treatment; vulnerable monuments of this nature would particularly benefit from the statutory protection which scheduling confers. There are also existing standing structures of particular form or complexity whose value can again be severely reduced by neglect or careless treatment and which are similarly well suited by scheduled monument protection, even if these structures are already listed historic buildings.

- ◊ The infirmary burial ground site, similar to the rest of the Radcliffe Infirmary site is vulnerable in relation to the development proposals for the site however

similar to the remainder of the site this could be mitigated by preservation by record and archaeological excavation of the burial ground.

Diversity: some monuments may be selected for scheduling because they possess a combination of high quality features, others because of a single important attribute.

◊ The burial ground although interesting does not in its pre-excavated state exhibit specific attributes worthy of national significance.

7.1.7 In 2005 English Heritage, working with Church of England, published the report *Guidance for best practice for the treatment of human remains excavated from Christian burial grounds in England* (EH & CoE 2005). This document establishes both general and specific considerations for archaeological field work in burial grounds, and also identifies six key factors which help to determine the research value of a skeletal collection (these have been paraphrased):

Size of Assemblage: Other things being equal, a large assemblage is generally of greater potential since patterning in data is more readily detected with larger numbers of individuals.

◊ The average estimated number of burials is moderate at about 670, although this is based on the discovery of a pit burial and some secondary phases of interment, which may not occur throughout the site. Regardless, the research potential is quite high within the site given the possibility of a moderate number of burials.

Type of Assemblage: Skeletal assemblages from a rare or interesting situation can be of particular value, for example rural medieval burials, examples of specific social sub-groups, sites such as hospitals, prisons or execution sites which focus on specific aspects of earlier populations, or specific demographic aspects.

◊ Some of the excavated burials were of the underprivileged, while others had coffins (two excavated being somewhat ornate); this broadens the type of social classes interred and lessens the importance of focus on a specific social class, with significance concentrating more on the potential for expanding knowledge of 18th and 19th century medical practices (as demonstrated by examples of sawn limbs and a craniotomy).

Skeletal Preservation: More scientific data can be extracted from well preserved skeletons than from poorly surviving material.

◊ While the excavations carried out revealed skeletons were generally well-preserved, there was also evidence for a 19th / 20th century construction pit which would have caused some disturbance. Also, "several had suffered post interment damage and the degree of inter cutting of graves and the quantity of disarticulated bones suggest that many other burials have been disturbed" (MoLAS 2010a).

Value of disarticulated material: Cemetery excavations generally produce significant quantities of disturbed, disarticulated material which is usually difficult to date. Furthermore, most scientific work involves relating different types of data to one another at the individual level, and therefore unstratified, disarticulated bone is of limited scientific value.

◊ Excavations revealed a good deal of disarticulated remains in grave cuts, overburden and charnel deposits, and there is reason to assume that this is consistent throughout the burial ground.

Dating: The tighter the dating of an assemblage, the greater its value, though the extent to which precise dating is possible varies between periods, and when larger collections can be split by phase this enhances their research value.

◊ The Radcliffe Infirmary burial ground has a substantial date range of 85 years (1770 – 1855), and given that the individual dates of burials are impossible to

trace this lessens significance of the assemblage with relation to dating. The only possible avenues of tighter dating arise from the possibility of a sporadic second phase of interment which still does not reveal exact dates, and from burial pits – though linking these to known dates of epidemics is likely to only be speculative.

Special assemblages: Some assemblages are of particular value because they are unusual in some way, and perhaps the most important type is that where biographical information such as name, age, date of death, etc. is available from grave markers or coffin plates, and can be associated with individual skeletons.

◊ Though there is some documentary evidence regarding burials, it is not possible to trace them to specific remains, thus reducing the value of biographical information. There are no other characteristics which contribute to making it a special assemblage.

8 RADCLIFFE INFIRMARY BURIAL GROUND: NOTES BY PLANNING ARCHAEOLOGIST ON SIGNIFICANCE

8.1 Case Study 1 – Linear barrow cemetery

Statement of interest for such monument complexes (taken from assessment of the remaining part of the linear cemetery within University Parks)

Asset/Monument Type: Late Neolithic-Early Bronze Age Barrow Cemetery

Summary: Evidence from excavations, aerial photography and geophysics has demonstrated the presence of an extensive Neolithic-Bronze Age funerary and ritual landscape below central and north Oxford. The best preserved component of this landscape is a series of barrows and related features located within the University Parks. A number of the barrows form part of a linear cemetery. No extant earthworks survive however a geophysical survey in 2011 has provided good evidence for the extent of surviving features.

Location (NGR): SP51430717

Definition: A round barrow cemetery is a group of five or more closely spaced prehistoric round barrows comprising examples of one or more of the following classes: bowl barrows, fancy barrows, pond barrows and ring cairns.

Key characteristics

8.1.1 The following criteria (which are not in any order of ranking) are based on the Secretary of State's criteria for assessing Scheduled Monuments. They should not be regarded as definitive, but as an indicative provisional assessment.

1) Period: Does the asset characterise a category or historic period?

◊ **Assessment:** The Middle Neolithic enclosure identified beneath the linear cemetery at the Radcliffe Infirmary site indicates the presence of a monumental landscape active from the Middle Neolithic to the Early Bronze Age. Barrow cemeteries are strongly characteristic of this period and the linear formation is a distinct pattern that characterises a small number of contemporary landscapes in the Upper Thames Valley. Linear cemeteries are known elsewhere but are absent from a number of nearby landscapes (e.g. the Chilterns). Barrow cemeteries span a period for which the number of known monument classes is fairly small. The evidence suggests that the barrows

remained in the landscape until the Saxon period, later becoming a focus for early Saxon activity.

Score: High

2) Rarity: What is the rarity of the asset in terms of regional and national context?

- ◊ **Assessment:** The exact number of round barrow cemeteries in England is not at present known, but a rough estimate suggests that between 300 and 500 examples have been recorded; at a county level there are 36 barrow cemeteries. Linear cemeteries form a subclass and far fewer examples are known. There is some debate over definition with a number of barrow clusters having linear aspects, however at least four distinct large linear alignments are known in the Oxfordshire/Berkshire Upper Thames Valley: the University Parks barrows, the extant Seven Barrows at Lambourn, Berks and linear alignments recorded at Barrow Hills, Radley and at Standlake, both of which have now been removed by quarrying. The survival of the University Parks barrows is therefore regionally distinctive (in terms of the Oxon/Berks Upper Thames).

Score: High

3) Documentation: To what extent is the significance of the asset enhanced by existing documentation or lack thereof?

- ◊ **Assessment:** The barrows were first noted in the 17th century as parch marks by Ashmolean Keeper Dr Plot. Subsequently aerial photography and geophysical survey have produced good quality evidence for the character and extent of the barrows. The wider monument complex has been extensively excavated and studies and is cited as the most extensively investigated dispersed barrow group in the Middle and Upper Thames Valley by Garwood (2011: 370).

Score: High

4) Group Value: Is the value of the asset enhanced by its association with related contemporary monuments or with monuments of different periods?

- ◊ **Assessment:** The University Parks barrows are associated with an extensive funerary complex that includes a Middle Neolithic enclosure, a henge, flat graves and satellite burials and a significant number of further barrows At least nine barrows from the Oxford 2nd terrace have been subject to some level of excavation.

Score: High

5) Survival/Condition: What is the estimated level of above and below ground survival?

- ◊ **Assessment**: No extant earthworks survive in the University Parks. A recent geophysical survey demonstrates the presence of ring ditch remains. Recent excavations at the western end of the linear cemetery undertaken as part of the Radcliffe Infirmary redevelopment have provided an indication of the kind of remains that can be expected to survive, including barrow ditches, associated posthole alignments and pits, cremations, animal bone and pottery.
- ◊ The barrows within University Parks represent perhaps a third of the original linear cemetery. The condition of remains within the central third is unknown however the area has been heavily developed. The western third of the cemetery has now been removed through excavation and development.

Score: Medium

6) Fragility/Vulnerability: susceptibility to change.

◊ **Assessment**: Whilst the linear cemetery lies within a Registered Park and Garden the wider landscape has been subject to applications and proposals for underground water attenuation tanks, geothermal arrays and IT trenching.

Score: Medium

7) Diversity: Does the asset possess a combination of high quality features?

◊ **Assessment**: The recent excavations at the western end of the linear cemetery at the Radcliffe Infirmary site demonstrated the presence of a Middle Neolithic enclosure (possibly with a mortuary enclosure) under one of the barrows as well as satellite burials associated the barrow. Parallels with similar landscapes at Standlake and Radley would suggest the potential for a wide range of monument forms and the geophysical survey results provide some evidence for this.

Score: High

8) Potential: Is there a likelihood that currently unrecorded evidence can be anticipated?

◊ Assessment: There is a strong likelihood that previously unrecorded evidence is present.

Score: High

Overall score (22/24)

9 RADCLIFFE INFIRMARY: PLANNING ARCHAEOLOGIST'S COMMENTS ON RESEARCH VALUE FOR A SKELETAL COLLECTION

- Period: One of many assets that characterize well a documented period. Low
- Rarity: A key question. We can either judge this to be one of 30-40 Infirmary sites of 18th century date that may have had associated burial grounds (many likely to now be destroyed), and therefore of interest because the burials represent a subset of lower income population from a voluntary hospital with University/teaching links in an urban centre. Or we could take the view that the population would be broadly similar to potentially hundreds of Workhouse Infirmary/burial ground populations that may survive around the country from the 18th -19th centuries. In which case the rarity would be low?
- Documentation: Only 195 burials recorded in archives, although the evaluation results enhance the 'documentation'. Low
- Group Value. The burial ground has detached 'group' relationship with the listed Infirmary, and also St Paul's Church and the RI boundary wall. The Radcliffe is one of only several listed Infirmary buildings still standing from 18th century and arguably the group value is significant. However the Purcell Miller Tritton Conservation report suggests the detached nature of the burial ground and subsequent NHS infilling has diminished its group value. Low/Medium?
- Survival / Condition: The MOLA report suggests that the burials are well preserved, although have to bear in mind that perhaps only 56% of the original burial ground area now survives. The estimated number of surviving burials would be significant. Good.
- Fragility / Vulnerability: Under threat

- Diversity: Low

Potential: Good, meets CofE/EH criteria on scientific value.

Appendix Radcliffe Infirmary: Planning archaeologists comments on research value for a skeletal collection

Size of Assemblage- The estimated number of assemblage size is not 'moderate'. The national guidelines state clearly that a large assemblage consists of more than c100 burials (*English Heritage 2004, Centre for Archaeological Guidelines Human Bones from Archaeological Sites, guidelines for producing assessment documents and analytical reports, p4*). The survival of 509-835 would be a large assemblage of burials from a specific period in good condition

Type of Assemblage- The guidance specifically references the examples of hospitals. If coffined and un-coffined burials can be differentiated and are indicative higher and lower status burials then surely each group can be studied accordingly, therefore I do not follow the logic of the statement provided.

Skeletal Preservation- Preservation was recorded as good

Value of disarticulated material - Not of particular interest

Dating- Given that parochial cemeteries may have operated for 1000 years or more the description of an 85 year timespan as 'substantial' is questionable. This is a reasonably short time span. The burials have greater interest because the use span of the cemetery is short and known

Special assemblage- This crosses over with type of assemblage to some extent. The assemblage is special in that it is a medical assemblage rather than a general workhouse, military or parochial one.

Appendix - The Advisory Panel on Burials in England (APABE) advice

9.1.1 We would question whether there are 'hundreds' of surviving workhouse infirmary burial grounds, and note that this claim was not based on detailed research. In any event, the information which teaching hospital burial grounds, such as RIBG, are likely to yield is rather different from that which might be derived from other sites such as workhouses or other hospital sites (e.g. military hospitals) which had different working practices and served different clienteles. In addition, the extent to which human remains and burial material culture survives on other, as yet unexcavated sites, is unknown as it is dependent upon local soil conditions and other factors.

9.1.2 It seems to us that, in PPS5 terminology, there is an archaeological interest in the site and that it is a heritage asset. Whether it meets criteria for national importance, and hence for preservation in situ, is less clear, and one should recall that the buried remains may deteriorate if soil conditions, hydrology etc are altered as a result of nearby development. If the development does proceed then the importance of the site argues for proper archaeological excavation, post excavation assessment and analysis, and publication.

9.1.3 If the site yields the quantity of burials anticipated, then the human remains, and their associated material culture, are likely to have considerable long-term research potential. The case for long-term retention of remains for research is strong. They would not need to be stored in consecrated ground, and only basic environmental controls (mainly to avoid excessive humidity and large temperature changes) would be needed. Note also that given the likely expense of reburial of remains, retention as a research collection may be the less costly option.

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