

ARCHAEOLOGICAL INVESTIGATIONS AT THE FORMER LIQUID/ENVY NIGHTCLUB, NEW BRIDGE STREET WEST, NEWCASTLE UPON TYNE

ASSESSMENT REPORT



MARCH 2015



PRE-CONSTRUCT ARCHAEOLOGY

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-ARCHAEOLOGICAL INVESTIGATIONS AT THE FORMER LIQUID/ENVY NIGHTCLUB, NEW BRIDGE STREET WEST NEWCASTLE UPON TYNE

ASSESSMENT REPORT

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Pre-Construct Archaeology Limited North Regional Office Unit N19a Tursdale Business Park Durham DH6 5PG Archaeological Investigations at the former Liquid/Envy Nightclub, New Bridge Street West, Newcastle upon Tyne

Assessment Report

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PART A: PROJECT SUMMARY

1. NON-TECHNICAL SUMMARY

- 1.1 A programme of archaeological investigations comprising monitoring of geotechnical pits, archaeological trial trenching evaluation and subsequent excavation and watching brief was undertaken 10–26 November 2015 and 8-17 February 2016 by Pre-Construct Archaeology Limited at the site of the former Liquid and Envy Nightclub and John Dobson House, New Bridge Street West, Newcastle upon Tyne. The work was carried out ahead of the construction of student accommodation at the site. The development involved the partial demolition of the existing buildings on the northern part of the site and the conservation and conversion of John Dobson's House located in the southern part of the site. The work was commissioned by Kier Property.
- 1.2 The proposed development area lies on the eastern side of the city centre of Newcastle upon Tyne and is centred at NGR NZ 25164 64574. The development site measures *c*. 50m x 30m and is bounded by Oxford Street to the east and north, an unnamed road to the west with Higham House beyond, and a paved area behind New Bridge Street West to the south. At the southern end of the site is John Dobson's House, a Grade II* Listed Building, which is to be retained within the development scheme and converted into a cafe, bar and restaurant. The building in the northern end of the site, originally constructed in the 1920s as the Oxford Galleries Dance Hall and most recently used as the Liquid and Envy Nightclub, was partially demolished prior to the start of the archaeological work.
- 1.3 A Historic Environment Desk-Based Assessment undertaken by Bernicia in 2013 established that the site was located just outside the medieval town walls and probably remained as open agricultural land throughout the medieval period and into the early part of the 19th century. The assessment highlighted the possibility that archaeological remains relating to medieval industrial activity may be present in the vicinity of the site due to its proximity to the city wall. John Dobson's house was built *c*. 1825 in the southern part of the site by the architect John Dobson as his own residence with a large open garden to the rear in the northern part of the development site, and a stable block along the street frontage in the north-west corner. By 1861 the garden had been shortened and the northern end of the site was developed as a yard area which included the earlier stables and possibly small workshop to the east. In 1924 a dance hall and restaurant was built in the northern part of the site, incorporating John Dobson House. The potential to find evidence of the workshop, stables and garden landscape was expected to be medium to high as it was considered that this part of the site was not cellared.
- 1.4 As a condition of the planning application, a building survey was undertaken on John Dobson House and the associated nightclub in July 2015 by Ainsworth Spark Associates on behalf of Magnetic Limited.
- 1.5 The archaeological work was carried out pre-determination of planning consent on the recommendation of Newcastle City Council (planning application: 2015/0870/01/DET), the body which advises on the historic environment and the effect of development within Tyne and Wear.

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An evaluation was considered the most appropriate method to assess the extent and nature of any archaeological remains at the site and to assess the impact of the proposed development on the archaeological resource.

- 1.6 The aims and objectives to be employed during the archaeological evaluation were set out in a Specification compiled in March 2015 by Newcastle City Council. The first phase of archaeological work at the site comprised the monitoring and recording of six geotechnical trial pits. It was considered that the site offered a rare opportunity to examine a plot of land which was not occupied by basements. However, prior to the archaeological trial trenching evaluation it was observed that the central portion of the site had been terraced for basement structures associated with the recently demolished buildings. Due to the substantial terracing across this part of the site the potential for archaeological remains surviving was severely reduced and it was decided therefore to abandon the proposed locations of Trenches 2 and 3.
- 1.7 Trench 1, which measured 3m east-west x 18m north-south was located a short distance to the south-west of its proposed location to keep site access clear. Trench 2 was located towards the central eastern side of the development site and measured 2.50m east-west x 2.50m north-south. As remains of high archaeological potential were encountered within Trench 1, a further trench (Trench 3) was opened up as an extension to the west of Trench 1 which measured 8m east-west x 2.50m north-south. As archaeological remains extended beyond the limits of Trench 3, a final phase of work comprised the excavation of an area extending 7.40m north of Trench 3 was undertaken to further expose the full extent of archaeological remains at this part of the site.
- 1.8 The final phase of archaeological work comprised a watching brief across the northern portion of the site undertaken during the initial ground levelling works of the construction phase of the development.
- 1.9 Archaeological deposits and features encountered at the site have been assigned to five phases of activity. Natural sub-stratum (Phase 1) was encountered across the investigated areas.
- 1.10 Phase 2 relates to medieval activity at the site comprising a medieval plough soil, recorded within Trenches 1 and 3 and a posthole and two ditches in Trench 3 likely to be associated with medieval field systems.
- 1.11 Features and structures associated with the development of the site during the 17th to 19th centuries were assigned to Phase 3 activity. One of the medieval field boundary ditches in Trench 3 also appears to have been recut in this period. Activity associated with the construction and use of John Dobson's House in the 19th century, including the development of a garden landscape incorporating a stables and workshop within a yard area, identified within Trenches 1 and 3 and Trial Pits 21, 27 and 25.

- 1.12 Phase 4 relates to activity in the early part of the 20th century associated with the development of the Oxford Galleries building in the 1920s. This mainly comprised structural activity such as the construction of foundations for the new building.
- 1.13 Phase 5 relates to modern activity such as demolition of buildings on the site and levelling in the site area.
- 1.14 This Assessment Report, which details the results of the evaluation and subsequent small-scale excavation, is divided into three parts. Part A, the Project Summary, begins with an introduction to the site, describing its location, geology and topography, as well summarising the planning and archaeological background to the project. The aims and objectives of the work are then set out, followed by full descriptions of the archaeological methodologies employed during both the fieldwork and the subsequent post-excavation work. This part concludes with an illustrated summary of the archaeological remains.
- 1.15 Part B, the Data Assessment, quantifies the written, graphic and photographic elements of the Site Archive. This part then sets out an archaeological summary discussion before summarising the potential for further analysis of all elements of the collected project data.
- 1.16 Part C of the report contains acknowledgements and references. There are three appendices to the report, the third being a selection of photographs from the fieldwork.

2. INTRODUCTION

2.1 General Background

- 2.1.1 This report details the methodology and results of a programme of archaeological investigations undertaken by Pre-Construct Archaeology Limited (PCA) 10–26 November 2015, at the site of the former Liquid and Envy nightclub and John Dobson's House, New Bridge Street West, Newcastle upon Tyne. The central National Grid Reference for the site is NZ 25164 64574 (Figure 1).
- 2.1.2 The investigations were commissioned by Kier Property and the archaeological investigations were undertaken pre-determination ahead of planning application (application number: 2015/0870/01/DET) on the recommendation of Newcastle City Council.
- 2.1.3 The archaeological potential of the site was initially established by a Desk-Based Assessment (DBA) (Bernicia 2013). The assessment concluded that potential for the survival of buried archaeological remains for the prehistoric and Roman periods was very low. The DBA highlighted that the site remained undeveloped until the early part of the 19th century. Therefore, the potential for archaeological remains of the medieval period was considered to be moderate given the proximity of the site to the medieval defensive wall. With the site lying outside the medieval walls, the use of the site for this period was expected to be agricultural. However it was considered that there was some possibility for the presence of archaeological remains relating to medieval industrial activities to be present at the site. The potential of postmedieval archaeological remains, in particular relating to the gardens and stables of John Dobson's House, to be present at the site was considered to be high. This large detached house, which was built *c*. 1825 by the architect John Dobson as his own residence, is situated at the southern end of the development site (Figure 2).
- 2.1.4 The proposed development involved the demolition of the building occupying the northern part of the site; a structure built in the 1920s as the Oxford Galleries Dance Hall and most recently used as the Liquid and Envy Nightclub. At the time of the archaeological investigations, the central and northern parts of the building had been demolished with the southern part still upstanding. The development involves the construction of 50 apartments in a 7-, 9- and 11- storey student block with associated landscaping and provision of retail units at ground floor. John Dobson's House, which is a Grade II* Listed Building, will be retained as part of the development and planning permission has also been submitted for the conversion of this building to include a cafe, bar, and restaurant.
- 2.1.5 As a condition of the planning application, a building survey of John Dobson's House and the former nightclub building was undertaken on behalf of Magnetic Limited (Ainsworth Spark Associates 2015).
- 2.1.6 The initial component of archaeological works at the site comprised archaeological monitoring of six geotechnical trial pits. This was followed by a trial trenching evaluation undertaken according to a Specification set out by the Archaeology Officer of Newcastle City Council (NCC

2015). The Specification was for the investigation of three trenches; Trenches 1 and 2 were to measure 2m x 20m and Trench 3 was to measure 2m x 15m (Figure 2).

- 2.1.7 Prior to the commencement of the evaluation it was observed that the central portion of the site had been terraced for basement structures associated with the recently demolished buildings. Due to the substantial terracing across this part of the site the potential for archaeological remains surviving was severely reduced and it was decided in consultation with the Archaeology Officer to abandon the proposed locations of Trenches 2 and 3.
- 2.1.8 Trench 1 was moved a short distance to the south-west of its proposed location in order to maintain site access, Trench 2 was located in the central eastern part of the site and Trench 3 formed an extension to Trench 1 to further expose archaeological remains encountered in this western part of the site (Figure 2). As features of archaeological significance were encountered within Trench 3, the trench was extended and a small area excavation was undertaken to fully expose the extent of archaeological remains at the site.
- 2.1.9 Features and deposits of medieval origin were identified in Trenches 1 and 3. These deposits are thought to relate to cultivation or pasture in the medieval period. Some early post-medieval deposits and features were also identified within Trenches 1 and 3 interpreted as activity relating to the gardens of John Dobson's House. Also identified in Trenches 1 and 3 and Trial Pits 21, 27 and 25 were structural elements relating to a small stable and workshop yard included at the rear of the gardens during this period, which were subsequently expanded in the late 19th century.
- 2.1.10 Due to the presence of medieval and post-medieval features of archaeological significance, identified within the northern portion of the site by evaluation and excavation, a subsequent phase of archaeological work was required by the Archaeology Officer of Newcastle City Council. This was undertaken during ground levelling activity associated with the initial construction phase of the development to record any further surviving archaeological features or structures at the site.
- 2.1.11 The archaeological project herein described was designed according to the guidelines set out in Management of Research Projects in the Historic Environment (MoRPHE) (English Heritage 2006b). In line with MoRPHE guidelines, this Assessment Report sets out a formal review of the data collected during the fieldwork.
- 2.1.12 The Site Archive (Site Code: NBS 15) is currently held at the Northern Office of PCA and the retained element, comprising the written, drawn and photographic records, as well as a selected assemblage of artefactual material, will be deposited with Tyne and Wear Museums and Archives at the Great North Museum. The Online Access to the Index of Archaeological Investigations (OASIS) reference number for the project is: preconst1-236622.

2.2 Site Location and Description

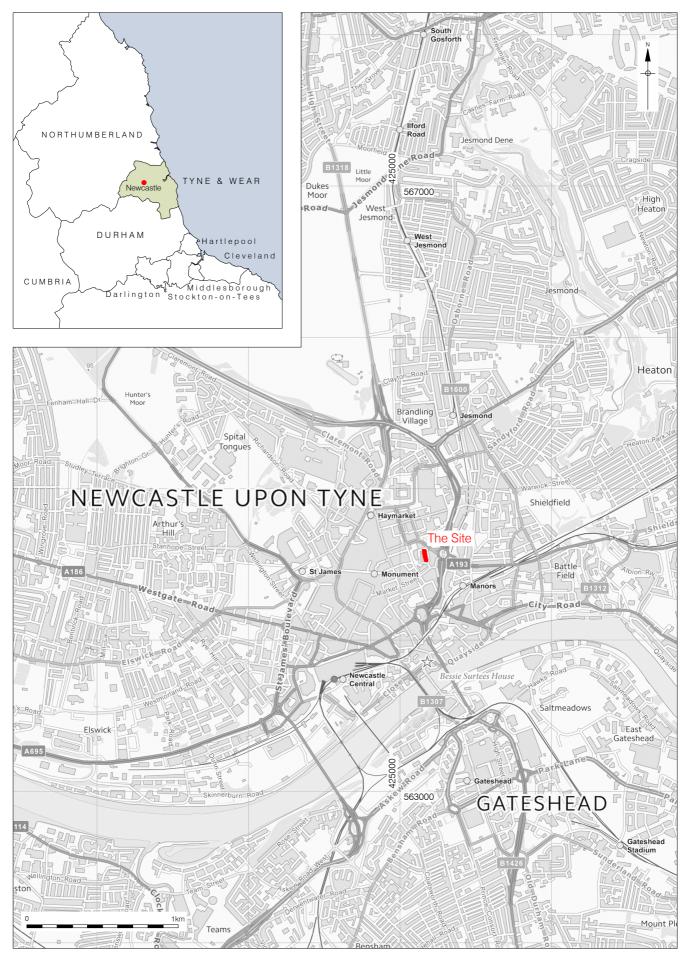
2.2.1 The site lies within the eastern part of Newcastle city centre and is centred at NGR NZ 425170, 564560 (Figure 1). It comprises a sub-rectangular area covering *c*. 50m north–south x 30m

east-west bounded by Oxford Street to the east and north, an unnamed road to the west with Higham House beyond, and a paved area behind New Bridge Street West to the south.

2.2.2 The site is not located within a Conservation Area or Archaeological Priority Area, although John Dobson's House which occupies the southern end of the development site is a Grade II* Listed Building.

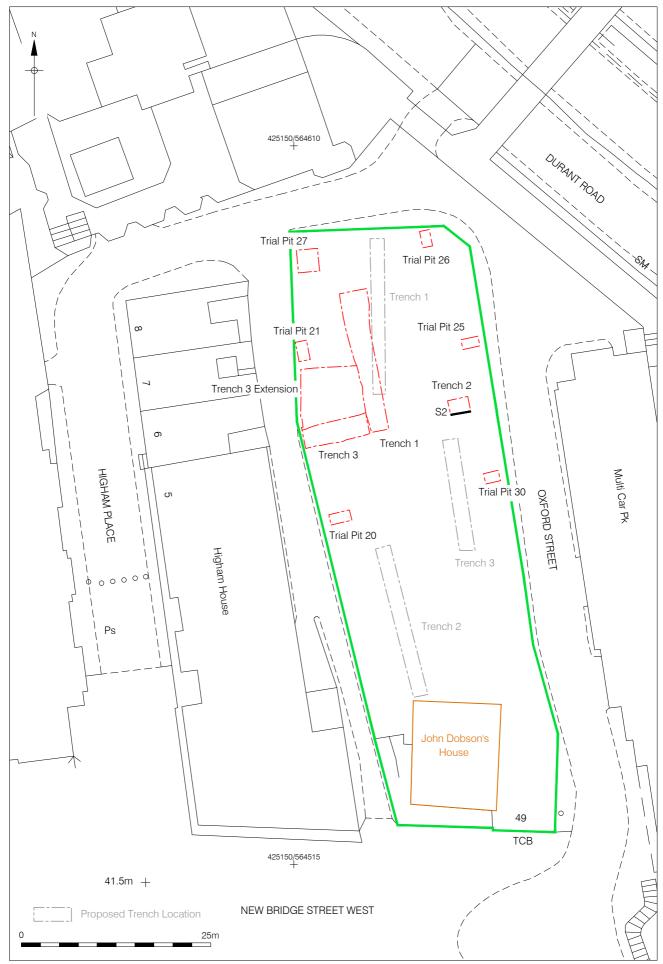
2.3 Geology and Topography

- 2.3.1 The site is underlain by Mudstone, Siltstone and Sandstone of the Pennine Middle Coal Measures Formation, formed approximately 309 to 312 million years ago in the Carboniferous Period in a local environment dominated by swamps and estuaries (*British Geological Survey website*). This is overlain by superficial deposits of Devensian Diamicton till.
- 2.3.2 The site lies on land that generally slopes downwards from north to south, towards the River Tyne which lies *c*. 760m to the south of the development site. Although subsequent development has masked the natural slope of the land, Oxford Street, which runs along the eastern perimeter of site, still shows a moderately steep slope to the south. The area of the development itself has been terraced, presumably during the construction of the 19th-century stables and workshop with further levelling ahead of the construction of the Oxford Galleries building. Some levelling may also have occurred during the landscaping of the gardens.
- 2.3.3 The site presently lies at a height of between 43.50m and 40.20m above Ordnance Datum (AOD). Recent geotechnical investigations involved the sinking of four boreholes outside the site perimeter. These boreholes indicated the presence of made ground to a depth of 1.30m– 1.80m below present ground level to depths of 40.13m to 42.25m aOD.
 - 2.3.4 Pandon Dene, a tributary of the River Tyne, would have flowed *c*. 200m east of the site within a wide and deep valley. The lower section of Pandon Dene up to Pandon Gate was culverted after 1649 and from around 1840 the culverts were used for sewage disposal. 'New Bridge' was built across the stream in 1821 to the east of the site and in 1837 the Pandon Burn south of the New Bridge was culverted and the Dene partially backfilled (HER 5768). The Dene wasn't backfilled to the north of the bridge until the 1850s, at which time demolition of the bridge was considered. However the bridge was still in place in 1885 at which time it was described as almost level with the ground on each side, indicating that the Pandon Dene Valley had been largely infilled by this time. It is possible that some parts of the structure survived until the Central Motorway was built in the early 1970s.



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Figure 1 Site Location 1:2,000,000 & 1:25,000 at A4



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Figure 2 Trench Location 1:500 at A4

2.4 Planning Background

- 2.4.1 The archaeological evaluation was carried out as a condition of a planning application (application number: 2015/0870/01/DET) for a proposed development at the site. The development proposals involve the demolition of the building originally erected in the 1920s as the Oxford Galleries Dance Hall, and last used as the Liquid and Envy Nightclub, which was situated in the northern part of the development site. The works are to allow for the construction of 50 student apartments in a 7- 9- and 11-storey accommodation block, as well as landscaping and associated retail provisions. The Grade II* listed John Dobson's House which occupies the southern end of the site is to be retained and refurbished for conversion to provide a cafe, bar and restaurant.
- 2.4.2 As a condition of the planning application, both buildings on the site were subject to archaeological recording (Ainsworth Spark Associates 2015).
- 2.4.3 The Tyne and Wear Specialist Conservation Team at Newcastle City Council provides archaeological development control throughout Tyne and Wear. The archaeological evaluation was required, as part of the planning process, to inform the Local Planning Authority (LPA), the Tyne and Wear Archaeology Officer and the Client, of the character, date, extent and degree of survival of archaeological remains at the site. The aim was to provide results which would inform a decision regarding further archaeological mitigation measures. As evaluation Trench 3 revealed the presence of threatened archaeological remains which warranted further mitigation, it was agreed with the Tyne and Wear Archaeology Office that the trench would be further extended to expose all archaeological remains at the site.
- 2.4.4 The requirement to undertake the archaeological investigation is in line with planning policy at a national level, as set out in the National Planning Policy Framework (NPPF) (DCLG 2012). The NPPF came into effect in 2012, replacing Planning Policy Statement 5: 'Planning for the Historic Environment' (PPS5) (DCLG 2010), to provide updated guidance for LPAs, property owners, developers and others on the conservation and investigation of the historic environment. Heritage assets those parts of the historic environment that have significance because of their historic, archaeological, architectural or artistic interest remain a key concept of the NPPF, retained from PPS5. Despite the deletion of PPS5, the PPS5: Planning for the Historic Environment Practice Guide (English Heritage, DCMS and DCLG (revised) 2012), remains a valid, UK Government-endorsed, document
- 2.4.5 Chapter 12 of the NPPF 'Conserving and enhancing the historic environment' describes, in paragraph 126, how LPAs should '...set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment' and details, in paragraph 128, that 'In determining applications, LPAs should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum, the relevant [Historic Environment Record] HER should have been consulted and the heritage assets assessed using

appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, LPAs should require developers to submit an appropriate desk-based assessment and where necessary [the results of] a field evaluation'.

2.4.6 The local planning authority responsible for the study site is Newcastle City Council, whose current planning policy is governed by its Core Strategy Development Plan Document adopted on the 11th of July 2012. This replaced the previous Unitary Development Plan, though some policies of the earlier plan are still extant, including that relating to archaeology:

20. ARCHAEOLOGY

DC20.1 The Council will give particular careful consideration to development proposals which affect Scheduled Ancient Monuments and sites of archaeological interests, to ensure their preservation in place. In particular:

a. Applications for consent to alter Scheduled Ancient Monuments or sites of archaeological interest or their settings should be accompanied by an evaluation and assessment of the implications of the proposal.

b. The Council will have special regard to the desirability of securing the preservation of Ancient Monuments and other sites of archaeological interest and their setting in place. It will not permit development that, in its opinion, would adversely affect Scheduled Ancient Monuments, or other sites of archaeological interests, and their settings, In exceptional cases where development is inevitable, the Council will look at the scope for combining preservation in place with limited investigation and recording.

c. Where the preservation of Scheduled Ancient Monuments and sites of archaeological interest in place is not appropriate, the Council will seek to gain full and proper recording of the site through early consultation between the applicant and approved archaeological organisation.

Reasons:-

The site is located within an area identified as being of potential archaeological interest. The investigation is required to ensure that any archaeological remains on the site can be preserved wherever possible and recorded, in accordance with paragraph 141 of the NPPF, Core Strategy Policies CS15 and UC14 and saved Unitary Development Plan Policies C4.2, C4.3, C4.4.

2.4.7 A Specification for the archaeological evaluation was issued by Newcastle City Council (NCC 2015).

2.5 Archaeological and Historical Background

(Information in this section is extracted from the Historic Environmental Desk-Based Assessment (Bernicia 2013); the research and writing of those responsible is acknowledged. Below is a summary of the archaeological and historical background. For a detailed description refer to the DBA.

- 2.5.1 No evidence of prehistoric or Roman activity has been discovered within the immediate vicinity of the development site.
- 2.5.2 The site lies in close proximity to the town defences construction of which began in the 13th century and continued into the middle of the 14th century. The defences comprised a stone wall with towers and an external ditch. The development site was situated external to the town wall to the north-west of Carliol Tower. It is most likely that the area in the vicinity of the site was exploited for agricultural uses during the medieval period.
- 2.5.3 The area probably remained as agricultural land open until the 19th century. Evidence for some medieval industry has been identified in the area, notably material relating to glass manufactory found beneath the current City Library 100m west of the site.
- 2.5.4 During the early part of the 17th century the town walls became neglected until the onset of the Civil War when the walls were repaired and there is archaeological evidence that the ditch was recut at this time. During the 18th century the town's defences were abandoned although archaeological evidence indicates that the north ditch may have been open until the 19th century.
- 2.5.5 Major development around the site appears to have begun in the early part of the 19th century with the construction of Saville Road to the north of the site. Maps from this period give no indication of the defensive ditch surviving so it is likely to have been backfilled by this period.
- 2.5.6 By 1830 the area surrounding the site appears to have become densely developed. The construction of the 'New Bridge' across Pandon Dene in 1812 is likely to have contributed to this as the bridge made the area desirable for affluent domestic villas and terraces. John Dobson was the principal architect for these developments and he constructed his own large detached house on the southern part of the development site area *c*. 1825 with a large open garden to the rear, in the northern part of the development site. By 1861 the garden had been shortened to accommodate a stable block and workshop in the northern part of the development site (see Figure 5).
- 2.5.7 Further development did not take place until 1923 with the construction of the Oxford Galleries Dance Hall across the northern part of the development site. Over the course of the 20th century this venue changed its name several times, most recently being used as the Liquid and Envy Nightclub.

3. PROJECT AIMS AND RESEARCH OBJECTIVES

3.1 Project Aims

- 3.1.1 The project is 'threat-led' with the potential to disturb or destroy important sub-surface archaeological remains, if present. Therefore the broad aim of the project was to inform the LPA, and the client regarding the character, date, extent and degree of survival of archaeological remains at the site.
- 3.1.2 Archaeological trial trenching was considered as the most appropriate investigative tool to test the archaeological potential of the proposed development site.
- 3.1.3 Additional aims of the project were:
 - to compile a Site Archive consisting of all site and project documentary and photographic records, as well as all artefactual and palaeoenvironmental material recovered;
 - to compile a report that contains an assessment of the nature and significance of all data categories, stratigraphic, artefactual, *etc.*

3.2 Research Objectives

- 3.2.1 The DBA concluded that the site lies within an un-cellared plot of land, a rare occurrence within Newcastle city centre. As a result the potential for finding buried archaeological remains *insitu* was considered to be moderately high. The DBA also stated that there was potential for evidence of the Civil War earthworks to lie just beyond the development site. The site lies within an area that has not been extensively developed. Therefore it was for the considered that there was high potential to increase existing knowledge of pre-industrial Newcastle.
- 3.2.2 The evaluation report should make reference to, and comply with, various Regional and Thematic Research Frame works.
- 3.2.3 In 'Shared Visions: The North-East Regional Research Framework for the Historic Environment' (NERRF) (Petts and Gerrard 2006) it is stated that very little is known about the early medieval period in the North East, and knowledge of the later medieval period is described as "patchy". Should deposits relating to these periods be encountered during evaluation they would be considered of local or regional importance. As the site lies outside the City walls, land uses for these periods are likely to be agricultural, although evidence for possible glass manufacture was found below the current City Library *c*. 100m west of the site. Particular attention should be drawn to these research agendas:
 - EMi Landscape
 - EMv Trade and Economy
 - MDii Landscape
 - MDiv Castles and defensive structures
 - MDvii Medieval ceramics and other artefacts

- MDix Trade and Economy
- 3.2.4 Activity in the post-medieval period on the site is likely to date from the early and late 19th century, the height of industrialisation in Newcastle and the North East. John Dobson was a principal architect of this period. It is considered therefore that deposits and structures, as well as any material culture, would be considered to be of local and regional importance. Particular attention will be drawn to research agendas set out in NERRF. These include:
 - PMii Industrialisation
 - PMv The growth of civil life
 - PMvii Civil war (due to the site's proximity to the city walls and earthworks, which were repaired during this period)
 - PMviii Industrial intensification (1790 1830)
- 3.2.5 In the 1920s a dancehall and restaurant was constructed in the northern part of the site, this incorporated John Dobson's House. It was thought possible that this new brick building may have retained some elements of the stable and workshop structures to the rear of John Dobson's House.
- 3.2.6 Specific research objectives to be addressed by the project were:
 - To determine the extent of survival of pre-industrial remains at the site;
 - To establish the presence or absence of medieval activity at the site;
 - To establish the presence or absence of activity relating to John Dobson's House. The DBA identified that the site was used as a garden for the his house with a workshop and yard to the rear;
 - To establish the nature of post-medieval use of the site before the construction of the 1920s Oxford Galleries Dance Hall at the north of the site;
 - To establish the nature and extent of truncation of earlier remains as a result of the construction of the Oxford Galleries building;
 - To establish the nature, date and survival of activity relating to any archaeological periods at the site;
 - To establish the extent of all past impacts on the archaeological resource.

4. ARCHAEOLOGICAL METHODOLOGIES

4.1 Fieldwork

- 4.1.1 The trial trenching evaluation fieldwork and subsequent excavation was undertaken 10–26 November 2015. All fieldwork was undertaken in accordance with the relevant standard and guidance document of the Chartered Institute for Archaeologists (CIfA) (CIfA 2014a and 2014b). PCA is a CIfA-Registered Organisation. The fieldwork was undertaken according to the Specification compiled by Newcastle City Council (NCC 2015), which should be consulted for full details of all methodologies employed regarding archaeological excavation, recording and sampling and post-excavation methodologies.
 - 4.1.2 Archaeological trial trenching was considered as the most appropriate investigative tool to test the archaeological potential of the site. The evaluation was undertaken prior to any groundwork necessitated by the new development. As deposits of archaeological significance were encountered in one part of the site, the work proceeded straight to excavation on the recommendation of the Tyne and Wear Archaeology Officer without an evaluation report being produced. This assessment report details the results of the evaluation trenches and small excavation area.
 - 4.1.3 In the Specification for the evaluation three trenches were to be investigated and the proposed trench locations were sited to provide a broad understanding of the extent of archaeological survival across the whole site, which was thought to be an uncellared plot of land. However during the monitoring of geotechnical trial pits prior to the evaluation, it was observed that 1920s dance hall building did contain a cellar in the centre and south of the site which severely lowered the potential of finding in situ archaeological remains. The proposed trench locations were abandoned on the recommendation of the Tyne and Wear Archaeology Officer.
- 4.1.4 Trench 1, which measured 3m east–west x 18m north–south was located south-west of the proposed location to avoid blocking access to site (Plate 1). Trench 2 was located towards the central eastern side of the development site and measured 2.50m east–west x 2.50m north-south. As remains of high archaeological potential were encountered within Trench 1, a further trench (Trench 3) was opened up as an extension to the west of Trench 1; this measured 8m east–west x 2.50m north–south. Archaeological remains extended beyond the limits of Trench 3 therefore a further phase of work that comprised the excavation of an area to the north which measured 7.40m north to further expose the full extent of archaeological remains at the site.
- 4.1.5 The final phase of archaeological work comprised a watching brief across the northern portion of the site undertaken during the initial ground levelling works of the construction phase of the development.
- 4.1.6 All trenches were mechanically-excavated by an 8-tonne 360° tracked machine with toothless ditching bucket under archaeological supervision. The trenches were excavated to the top of the first significant archaeological horizon, or the clearly defined top of the natural sub-stratum, whichever was reached first.

- 4.1.7 Hand cleaning was undertaken of all trenches. All features were subject to partial or complete excavation within the trenches, with the exception of areas that exceeded 1.2m deep or were not accessible due to health and safety constraints.
- 4.1.8 A photographic record of the investigations was compiled using a digital SLR camera illustrating in both detail and general context the principal features and finds discovered. All record photographs included a legible graduated metric scale. A selection of digital photographs is included in Appendix 3.
- 4.1.9 All trenches were recorded, irrespective of whether or not they contained archaeological features. All trenches were planned to scale (1:20). One long section was drawn to scale (1:20) in each trench.
- 4.1.10 A Temporary Bench Mark (TBMs) was established at the site using Leica Viva Smart Rover Global Navigation Satellite System (GNSS). The height of all principal strata and features were calculated relative to Ordnance Datum and indicated on the appropriate plans and sections.
- 4.1.11 All trenches were set-out by PCA using a Leica Viva Smart Rover Global Navigation Satellite System (GNSS), with pre-programmed co-ordinate data determined by an office-based CAD Technician. The Smart Rover GNSS provides correct Ordnance Survey co-ordinates in real time, to an accuracy of 1cm.

4.2 Post-excavation

- 4.2.1 The stratigraphic data generated by the project is represented by the written, drawn and photographic records. A total of 115 archaeological contexts were defined during the course of the archaeological investigations, (Appendix 2). The contents of the paper and photographic elements of the Site Archive are quantified in Section 6. Post-excavation work involved checking and collating site records, grouping contexts and phasing the stratigraphic data (Appendix 1). The archaeological remains were assigned to five broad phases of activity. A written summary of the archaeological sequence was then compiled, as described below in Section 5.
- 4.2.2 Artefactual material from the investigations comprised assemblages of pottery and clay tobacco and a single copper-alloy 'small find'. An assessment report for the artefactual assemblage has been produced including a basic quantification of the material and a statement of its potential for further analysis and relevant comments integrated into Section 5. The results are given in Section 7.
- 4.2.3 The complete Site Archive, in this case comprising the written, drawn and photographic records (including all material generated electronically during post-excavation) and the majority of the artefactual assemblage, will be packaged for long term curation.
- 4.2.4 In preparing the Site Archive for deposition, all relevant standards and guidelines documents referenced in the Archaeological Archives Forum guidelines document (Brown 2007) will be adhered to. The site archive (records and materials recovered) should be prepared in

accordance with Managing Archaeological Projects, Second Edition, 5.4 and appendix 3 (HBMC 1991), MoRPHE Project Planning Notes 2006 PPN3 – Archaeological Excavation, "Archaeological documentary archives" IFA Paper No.1, "Archaeological Archives – creation, preparation, transfer and curation" Archaeological Archives Forum etc., Guidelines for the Preparation of Excavation Archives for Long Term Storage (UKIC 1990) and "Archaeological Archives – A guide to best practice in creation, compilation, transfer and curation" by Duncan H.Brown, Archaeological Archives Forum, July 2007.The depositional requirements of the body to which the Site Archive will be ultimately transferred will be met in full.

4.2.5 At the time of writing the Site Archive is housed at the Northern Office of PCA, Unit N19a Tursdale Business Park, Durham, DH6 5PG. When complete, the Site Archive will be deposited with Tyne and Wear Museums and Archives at the Great North Museum, Newcastle upon Tyne under the site code NBS 15. The Online Access to the Index of Archaeological Investigations (OASIS) reference number for the project is: preconst1-236622.

5. RESULTS: THE ARCHAEOLOGICAL SEQUENCE

During the investigations, separate stratigraphic entities were assigned unique and individual 'context' numbers, which are indicated in the following text as, for example, [1]. The archaeological sequence is described by placing stratigraphic sequences within broad phases, assigned on a site-wide basis in this case. An attempt has been made to add interpretation to the data, and correlate these phases with recognised historical and geological periods.

5.1 Phase 1: Natural sub-stratum

- 5.1.1 Phase 1 represents the natural glacial till sub-stratum, which was recorded in Trenches 1, 2, and 3 and all trial pits (Trial Pits 20, 21, 25, 26, 27, 30). This generally comprised various coloured sandy clay and clay ([215] Trench 1; [221] Trench 2; [237] Trench 3; [140] TP20; [103] TP21; [111] TP25; [119] TP26; [126] TP27; [136] TP30). Natural glacial till sub-stratum exposed across the northern part of the site during the final watching brief phase of archaeological work was attributed context number [1020].
- 5.1.2 The maximum recorded height of the glacial till was 42.11m OD in Trench 1, the northernmost trench, and the minimum recorded height was 41.28m OD in the southernmost, Trench 2. This indicates a downward slope from north to south. Earlier geotechnical investigations also indicated that the natural topography of the site slopes down from north to south towards the River Tyne with natural deposits recorded in boreholes along the eastern part of the site between 40.13m OD and 42.25m OD.

5.2 Phase 2: Medieval

5.2.1 Phase 2 activity represents medieval activity recorded in Trenches 1 and 3 and comprised developed soils, a possible posthole and two ditches.

Trench 1 (Figure 3 & Figure 4; Section 1) (Plate 1)

- 5.2.2 The natural sub-stratum in Trench 1 was overlain by a 0.10m thick deposit [214] comprising firm light yellowish brown silty clay. This was recorded in section in the southern part of the trench and was recorded for a distance of *c*. 3.80m north–south, continuing to the south beyond the limit of excavation. It was encountered at maximum and minimum heights of 40.66m OD and 42.00m OD respectively, sloping downwards from north to south. The deposit has been interpreted as a medieval developed soil, possibly a plough soil, although no datable evidence was recovered.
- 5.2.3 A *c*. 90mm thick deposit [213] comprising friable mid greyish brown clayey silt directly overlay deposit [214], also exposed for a distance of 3.80m north–south. This deposit was truncated by 19th century-levelling activity and was only recorded within the southern extent of the trench. It probably represents a further developed soil from which three sherds of pottery dating to the 13th to 14th century were recovered.

Trench 3 (Figure 3 & Figure 4; Sections 3-5) (Plate 2)

- 5.2.4 The natural sub-stratum in Trench 3 was overlain by a *c*. 0.15m thick yellowish brown silty clay deposit [224] that was exposed for a maximum distance of 2.96m east-west and 7.20m north-south, encountered at maximum and minimum heights of 41.99m OD and 41.95m OD. This deposit probably represents a developed agricultural soil from which a small assemblage of 13th- to 14th-century pottery was recovered. A single sherd of 17th-century pottery was also recovered and this is considered to be residual in context. This deposit is similar in composition to that of developed soil [214] recorded in Trench 1 and [224] is likely to represent a continuation of this medieval plough soil.
- 5.2.5 A circular feature [245] truncated the developed soil towards the central northern end of Trench 3 (Plate 3). This measured 0.30m diameter and was up to 0.10m deep. Its single fill [244] comprised mid reddish brown clayey sand from which a single sherd of medieval pottery was recovered. This feature is interpreted as a posthole, the shallow depth of which suggests it had been substantially truncated, probably by post-medieval levelling activity.
- 5.2.6 A shallow east-west aligned feature [223] was recorded truncating medieval developed soil [224] towards the southern end of Trench 3 (Figure 3 and Section 3). It was exposed for a maximum distance of 5.76m, truncated to the west by Phase 2 masonry wall [225] and by post-medieval levelling activity to the east, by up to 0.90m wide and was up to 0.38m deep. Its single fill [222] comprised firm mid brown clay from which three sherds of medieval pottery were recovered. Due to substantial horizontal truncation interpretation of this feature is not certain; however it may represent a drainage or boundary ditch probably associated with agricultural activity. Although the pottery recovered from this feature suggests a medieval date for this ditch it is worth noting that small inclusions of ceramic building material were observed in the fill and this feature could potentially be early post-medieval in date.
- 5.2.7 A more substantial north-south aligned ditch [254] was partially exposed along the western edge of the Trench 3 (Section 4; Plate 4). It was exposed for a distance of 13.60m, continuing beyond the southern and western limits of excavation and truncated at the northern end by a modern intrusion, and was at least 0.84m wide by up to 0.52m deep. The full extent of the ditch was not visible as its western edge lay beyond western limit of the assessment area. The earliest fill comprised a *c*. 0.15m thick grey silty clay [253] with very occasional inclusions of charcoal flecks. The upper fill comprised a *c*. 0.26m thick light yellowish brown silty clay [252] deposit with very occasional inclusions of small sub rounded stone. The upper strata of the ditch was truncated by Phase 3 ditch re-cut [241] along its extant length (Section 4). Due to the limited exposure of the ditch its interpretation is impossible. However it is likely to represent a drainage or boundary ditch associated with agricultural activity rather than a defensive ditch. Although no finds were recovered from either of its fills, their composition and relative absence of any inclusions suggest a probable medieval date for this ditch.

Watching brief

- 5.2.8 A friable mid yellowish brown silty sand [1003] was recorded intermittently across the monitored area directly overlaying the natural sub-stratum [1020]. Although no datable material was recovered from this deposit its composition is similar to the medieval plough soil recorded in Trench 3 and is likely to represent a continuation of this.
- 5.2.9 A principle aim of the watching brief was to allow for the full exposure of the north-south aligned ditch [254] that was partially exposed along the western edge of Trench 3 extension. To this end the full width of the purported medieval ditch was not exposed as the groundworks did not involve the removal of the retaining wall which overlies the ditch. The eastern edge of the medieval ditch, attributed number [1018], was exposed for a further 6.00m to the south of Trench 3 where it continued beyond the western limit of the site. A sample excavation through the exposed part of the ditch recovered no artefactual material from its single clay fill [1019].

5.3 Phase 3: Post-Medieval

5.3.1 Post-medieval remains, including structures and deposits contemporary with John Dobson's House, have been assigned to Phase 3. Such deposits and structures include the garden landscape and buildings to the north of the site including stables and workshop as depicted on 19th-century mapping evidence (Figures 5 & 6).

Trench 1 (Figure 3)

- 5.3.2 The earliest Phase 3 activity was recorded within the southern part of Trench 1 and comprised a deposit of mid brown clayey silt [212] that directly overlay the medieval developed soil [213]. It was recorded in section for a maximum distance of 3.80m north–south and was up to 0.35m thick, encountered at maximum and minimum heights of 42.28m OD and 42.00m OD, respectively. Although no datable material was recovered, inclusions of small fragments of ceramic building material and coal indicated a post-medieval date. This deposit may therefore represent 19th-century levelling or consolidation activity prior to the establishment of the stables and the gardens to the rear of John Dobson's House. A similar deposit [246] recorded in Trench 3 may represent a continuation of this to the west.
- 5.3.3 At the northern extent of Trench 1 a circular brick-lined well [207] was recorded truncating the sub-stratum within a narrow *c*. 1.90m diameter construction cut [205] (Plate 5). The well itself had an external diameter of *c*. 1.60m and an internal diameter of *c*. 1.20m. It was built with unfrogged red brick (average size 220mm x 110mm x 60mm), up to 2.40m deep in 14 courses of unmortared headers set on edge, encountered at a maximum height of 42.14m OD. No datable artefactual material was recovered from the light grey silty sand backfill [208] or the mid pinkish brown clay backfill [206] of the construction cut. The brick-lined well is probably 19th century in date and contemporary with the stables and workshop buildings built in the early part of the 19th century, associated with John Dobson's House. The brick-lined well would have been located within an area of yard east of the stable building as depicted on the 1861 Ordnance Survey map (Figure 5). The well was presumably backfilled sometime in the latter

part of the 19th century or early 20th century prior to the construction of the Oxford Galleries Dance Hall.

- 5.3.4 A NE-SW aligned linear feature [204] truncated the well's construction cut in the south-west quadrant of the well. This exposed for a maximum distance of 2m, extending beyond the south-west limit of excavation, and was up to 0.90m wide by at least 0.23m deep, encountered at a height of *c*. 42.48m OD. Its single fill [203] comprised firm mid yellowish brown silty clay from which no artefactual material was recovered. This feature is interpreted as part of a robbed-out culvert that fed into the well. Sandstone blocks observed at the south-western extent of its backfill may represent an *in-situ* element of the original culvert structure (Plate 6). Due to the robbing of the masonry it is unclear if it was contemporary in date with the brick-lined well or a later 19th-century addition. Although no datable artefactual material was recovered from its backfill the stone was probably removed sometime in the latter part of the 19th century and immediately backfilled. In this area a section of brickwork in the upper part of the well, 0.30m wide by 0.23m deep, comprising two courses of brick bonded with a light grey lime mortar probably represents an area of repair undertaken immediately after the removal of the culvert structure (Plate 5).
- 5.3.5 A NE-SW aligned masonry culvert [210] in a narrow construction cut [211] truncated levelling and consolidation deposit [212] in the central portion of Trench 1. It was exposed for a maximum distance of 2.94m NE–SW and was up to 0.56m wide by 0.20m deep, encountered at a maximum height of 42.24m OD. The base of the culvert was built using unfrogged handmade red brick laid in a single course of headers set on bed (average size 230mm x 170mm x 120mm) and bonded with a light grey lime mortar. Only parts of the south-eastern side of the culvert survived to one course, built with dressed sandstone blocks (maximum size 500mm x 150mm x 100mm) and bonded with light grey lime mortar. Although no datable material was recovered from the construction cut backfill [209] it probably dates to the early part of the 19th century, forming part of a drainage structure associated with the John Dobson's garden. The culvert was not recorded within Trench 3 to the west and at this location was probably truncated by early 20th-century levelling activity.

Trench 2 (Figure 4; Section 2) (Plate 7)

5.3.6 The natural sub-stratum in Trench 2 was overlain by a 0.72m thick firm mid brown clayey silt deposit [220] which extended across the trench. No artefactual material was recovered from this deposit but it probably represents a levelling and consolidation deposit laid down in the early part of the 19th century prior to the establishment of the buildings and gardens associated with John Dobson's House.

Trench 3

5.3.7 Phase 3 activity recorded in Trench 3 represents post-medieval structures, features and deposits associated with John Dobson's development at the site and a re-cut of the Phase 2 ditch located along the western edge of the trench.

- 5.3.8 The earliest Phase 3 activity recorded in Trench 3 was a roughly north-south aligned linear feature [241] that cut the upper strata of Phase 2 medieval ditch [254] and was similarly aligned, representing the re-cutting of the earlier boundary in the post-medieval period. Due to the location of this feature at the westernmost limit of excavation, only its eastern edge was exposed for a maximum distance of 13.60m. It was at least 1m wide and up to 0.60m deep and was encountered at maximum and minimum heights of 42.31m OD and 41.89m OD, respectively (Figure 4; Section 4). No datable artefactual material was recovered from its single friable mid brown clayey sandy silt [240]. Although no datable material was recovered from its backfill, it did contain fragments of sandstone, patches of light grey lime mortar and small fragments of ceramic building material indicating this ditch re-cut was backfilled in the early part of the 19th century prior to the development at the site by John Dobson.
- 5.3.9 Three deposits, [229], [251] and [261] with a maximum combined thickness of 0.80m were recorded in section overlying ditch re-cut [241] with the uppermost strata encountered at a maximum height of 42.61m OD. The earliest of these deposits comprised friable mid-brown clayey sandy silt [229] that was exposed for a distance of 1.90m east-west by 2.50m north-south and was up to 0.64m thick . This in turn was overlain by *c*. 0.10m thick deposit of crushed ceramic building material, mortar and sand [261] and the uppermost deposit comprised *c*. 0.36m thick friable mid-brownish grey sandy silt [251]. Although no datable material was recovered from any of these deposits all contained varying quantities of ceramic building material and probably represent levelling and consolidation deposits dating from the first half of the 19th century prior to the establishment of the stable buildings that were built within this area.
- 5.3.10 Directly overlaying Phase 2 medieval features in the southern part of Trench 3 was a friable mid greyish brown clayey sandy silt deposit [246] up to 0.52m thick. This deposit probably represents a further levelling and consolidation deposit laid down prior to development at the site associated with John Dobson. Two sherds of post-medieval pottery dating to the 17th-century were recovered from this deposit.

Stable building

- 5.3.11 Structural elements associated with the 19th-century stable building were recorded across the western edge and central area of Trench 3 including walls forming the south-western corner of the structure, a square foundation forming part of the south-eastern corner and an associated culvert.
- 5.3.12 A square sandstone block foundation [256] was recorded within a narrow construction cut [259] truncating levelling and consolidation deposit [246]. It measured 1.06m square and survived as a single course of roughly hewn and dressed sandstone blocks (maximum 550mm x 310mm x 180mm and minimum 340mm x 200mm x 130mm) bonded by light grey lime mortar (Plates 8 & 9). This structure may represent a surviving foundation element forming the south-eastern corner of the stable building as depicted on the 1861 and 1898 Ordnance Survey map (Figures 5 & 6) with this foundation later incorporated into the foundations of the Oxford Galleries Dance Hall.

- 5.3.13 A sandstone and brick culvert [228] was recorded within a narrow construction cut [250] truncating levelling and consolidation deposits [246] and [251] (Sections 3-5; Plates 10 & 11). It was exposed for a distance of c. 7.50m, continuing beyond the southern limit of excavation and truncated to the north by modern levelling, and was up to 0.88m wide by up to 0.27m high. The northern half of the culvert was aligned NE-SW, turning in the south to run on a north-south alignment where it was incorporated into the east-west aligned stable building wall [247]. The culvert to the north of the wall was built using brick (average size 220mm x 110mm x 80mm) and was bonded by a light grey lime mortar. It comprised two brick walls c. 0.20m apart and for the most part survived to a single course of brick and to a maximum of three courses where the culvert was incorporated into wall [247]. The culvert to the south of wall was built using a combination of roughly hewn and unworked sandstone blocks (maximum 680mm x 530mm x 130mm), bonded by light grey lime mortar. At this location the culvert comprised two walls c. 0.20m apart by up to 0.20m high and was capped with sandstone slabs (maximum 700mm x 600mm x 150mm). A loose mid brownish grey sandy silt [248] contained within the culvert walls was up to 0.20m thick and represents the natural silting-up of the culvert structure. A small assemblage of pottery of 19th-century date was recovered from this deposit along with a small copper-alloy toy cannon (see Section 7). No datable artefactual material was recovered from the friable mid brown sandy silt construction cut backfill [255]. This culvert is probably contemporary with the early 19th-century stable building wall [247] forming part of a wider drainage system across the site.
- 5.3.14 Elements of the south-western corner of the stable building [247] were recorded along the western edge of Trench 3 (Plates 12 & 13). Culvert [228] was incorporated into east-west aligned element of the stable building wall and is likely to be contemporary in construction date. The east-west aligned element was exposed for a maximum distance of *c*.1.60m, turning at a right angle to the west to from the north-south alignment element. This part of the wall was observed in section against the edge of the trench for a maximum distance of 4m, continuing north beyond the limit of excavation. Where exposed wall [247] was up to 0.70m high, encountered at a maximum height of 43.36m OD, and survived up to five courses of roughly hewn sandstone blocks (maximum 500mm x 200mm x 200mm), bonded by light grey lime mortar.

Trial Pits 21, 25 & 26

5.3.15 Trial Pit 21 was located immediately to the north of Trench 3 along the western margin of the site (figure 2). The earliest Phase 3 activity within this trial pit comprised a *c*. 0.80m thick firm mid brownish yellow clay deposit interpreted as a levelling and consolidation deposit that was laid down prior to the construction of the stable building. The upper courses of a north–south aligned stone block-built wall [104] were recorded across the western edge of the trial pit, exposed for a distance of 2.60m by up to 0.46m wide with only the upper two courses exposed to 0.40m high. It was built in roughly hewn sandstone blocks bonded by light grey lime mortar. This wall was similar in construction to that of the north–south aligned stable building recorded

in Trench 3 and represents a continuation of the western stable building wall to the north (Figures 5 and 6).

- 5.3.16 Two structures and a deposit assigned to Phase 3 activity were recorded in Trial Pit 25, located to the east of Trench 1, adjacent to the eastern limit of the site (Figure 2). An east–west aligned sandstone block wall [116] was partially exposed within the south-eastern corner of the trial pit *c*. 1.40m below present ground level. The wall had been truncated to the west by early 20th-century levelling/demolition activity and only survived to two courses, built using large roughly hewn sandstone blocks bonded by light grey lime mortar. Based on the alignment and its location this wall may represent part of the southern wall of a 19th-century workshop building that was located along the eastern margin of the site as depicted on the 1861 Ordnance Survey map (Figure 5).
- 5.3.17 A roughly NW–SE aligned stone culvert [117] was encountered in the north-eastern corner of Trial Pit 25 at a depth of *c*. 1.40m below present ground level. The exposed portion of the culvert measured at least 0.30m wide and was at least 0.15m deep and comprised two parallel walls built using roughly hewn sandstone blocks and capped by a sandstone slab. Both structures [116] and [117] in Trial Pit 25 were substantially truncated by levelling activity probably undertaken during the early part of the 20th-century associated with the construction of the Oxford Galleries building.
- 5.3.18 A levelling and consolidation deposit of 19th-century date was encountered within Trial Pit 26, located in the north-eastern corner of the site, at a depth of 1.10m below ground level. This comprised firm mid brownish yellow silty clay [120] *c*. 0.30m thick.
- 5.3.19 In Trial Pit 27, located in the north-west corner of the site, a mid brownish yellow sandy clay levelling and consolidation deposit [127] overlay the natural clay, encountered at a depth of *c*. 1.60m below present ground level. A brick surface [130] and associated *c*. 20mm thick sand bedding layer overlay this deposit at a depth of *c*. 1.22m below present ground level. The brick surface was built using unfrogged red brick (average size 230mm x 110mm x 70mm) bonded by light grey lime mortar. The brick surface, as exposed, was contained within three walls, [134], [129] and [135], to the north, south and east, respectively, and probably represents an internal basement surface associated with the 19th-century stable building (Plate 14).
- 5.3.20 The lower courses of the northernmost wall [134] comprised large roughly hewn sandstone blocks with the remainder of the wall covered in a thick concrete render with the upper exposed course built in unfrogged red brick [151]. The stone element of the northern wall has been interpreted as surviving remains of the northern external wall of the early 19th-century stable building and the brick element possibly represents the incorporation of the earlier wall into the building of the early 20th century Oxford Galleries building.
- 5.3.21 The north–south aligned stone wall [135] recorded along the western edge of Trial Pit 27 was exposed for a maximum distance of 2m and was 1.60m high. It was built using large roughly hewn sandstone blocks (maximum 400mm x 400mm) bonded by light grey lime mortar. This

wall was similar in construction to the north–south aligned walls recorded in Trench 3 and Trial Pit 21 and probably represents a continuation of the westernmost stable building wall to the north. Walls [135] and [134] probably formed the north-western corner of this building as depicted on the 1861 Ordnance Survey map.

5.3.22 Abutting the western external wall [135] was an east–west aligned brick wall [129] located *c*. 1m south of external wall [134]. Encountered at *c*. 1.40m below present ground level, the wall survived to four courses of brick *c*. 028m high in stretcher bond and was built using unfrogged red brick (average size 230mm x 110mm x 70mm), bonded by light grey lime mortar (Plate 15). This wall probably formed an internal wall of the 19th-century stable building. The internal area of the stable building had been filled in by early 20th-century material [131] associated with ground levelling and consolidation activity for the Oxford Galleries building.

Watching Brief

- 5.3.23 The eastern edge of re-cut [1016] was exposed for a maximum distance of 6.00m, truncating the fill [1019] of medieval ditch [1018]. Although no datable material was recovered from its single soft mid brownish grey sandy clay fill, [1017], animal bone and ceramic building material support the post-medieval date for the re-cut.
- 5.3.24 At the north-western corner of the site in the vicinity of Trial Pit 27 the earliest Phase 3 deposits encountered during the watching brief comprised three levelling deposits, [1034], [1028] and [1027] (Plate 21). The earliest levelling deposit encountered within this area comprised firm light yellowish brown sandy clay [1034] that was exposed for a maximum distance of 2.00m north-south by 1.50m east-west. Its full thickness was not established. This in turn was overlain by *c*. 80mm thick loose light yellowish brown sand [1028] and by *c*. 0.12m thick light grey lime mortar [1027]. Although no datable material was recovered from these deposits, they were probably laid down sometime in the 19th century prior to the construction of the stable buildings.
- 5.3.25 Truncating levelling deposit [1034] was a short portion of an east-west aligned brick culvert [1031], built in a narrow construction cut [1030], which was exposed for a maximum distance of 0.90m, continuing east and west below levelling deposit [1028]. This was 0.37m wide by 0.45m high. The culvert comprised two parallel brick walls *c*. 0.15m apart and a sandstone slab cap (average size 380mm x 380mm x 110mm). The brick walls consisted of five courses of red unfrogged brick in stretcher bond set on bed (average size 225mm x 110mm x 70mm) bonded by a light grey lime mortar and sand. No artefactual material was recovered from its loose light yellowish brown sand construction cut backfill [1032] or the loose dark brownish grey silty sand [1033] silting deposit inside the culvert.
- 5.3.26 A brick surface brick, [1025], and associated bedding material, [1026], overlay the uppermost levelling deposit [1028]. The brick surface which was partially exposed in Trial Pit 27 and attributed context number [130], was exposed during the watching brief for a maximum distance of 2.26m north-south by 1.40m east-west (Plate 20). The brick surface had been heavily truncated by recent levelling activity with only a small area surviving. The bricks (average size

225mm x 100mm x 70mm) were set on edge and bonded by light brownish grey lime mortar. The brick surface directly overlay *c*. 0.10m thick bedding of compact dark blackish grey silty sand [1026] that was exposed for a maximum area of 3.90m north-south by 3.80m east-west. Pottery recovered from the bedding deposit has been identified as mid-late 19th century, further suggesting that the internal surfaces relate to the stable structure.

- 5.3.27 Part of a 0.42m wide by 0.12m high east-west aligned brick and concrete structure [1029] was recorded for a maximum distance of 0.98m. It was unclear as to whether this was the same structure that was exposed in the southern section of Trial Pit 27. The wall exposed during the watching brief survived to only one course of stretchers set on edge surrounding two internal concrete blocks (Plate 20). The brick and concrete structure was built on the same bedding layer [1026] as brick surface [1025] and it is possible that they are broadly contemporary, however its function is unclear.
- 5.3.28 The north-south aligned culvert [228] recorded along the western edge of Trench 3 and Trench 3 extension was further exposed during the watching brief and attributed context number [1012]. This culvert was exposed for a distance of *c*. 9.00m to the south of Trench 3 within construction cut [1011]. The culvert was backfilled by *c*. 0.39m thick loose dark brownish grey clayey sand that contained oyster shell and clay tobacco pipe stems.
- 5.3.29 At the eastern part of the site within the near the vicinity of Trial Pit 25 the earliest Phase 3 deposit encountered was recorded in section up to 0.60m thick and comprised firm mid greyish brown sandy clay. Although no datable artefactual material was recovered to is likely to represent a 19th-century levelling deposit.
- 5.3.30 Two structures associated with the possible workshop in the east of the site were also identified during the watching brief. The first of these was located in the near vicinity of Trial Pit 25 and has been interpreted as a possible external wall of the workshop building. The wall [1004] was built from roughly hewn sandstone blocks (average size 640mm x 380mm x 80mm) with a brick façade on its northern elevation. The brick façade survived to 3 courses of unfrogged red brick in stretcher bond (average size 220mm x 111mm x 50mm) bonded with a light grey lime mortar. The wall survived to 0.70m east-west and was 0.62m wide by 0.30m high. The concrete foundations [1001] of the 1920s building had been built over the surviving courses of the workshop wall (Plate 17).
- 5.3.31 A further brick structure was identified to the south of Trial Pit 25. Truncating levelling deposit [1009] this structure [1005] was recorded in a narrow construction cut [1006] and truncated levelling deposit [1009]. It consisted of a north-south aligned external brick wall with two presumed to be rectangular brick chambers [1005] extending eastwards from the external wall (Plate 18). The external north-south aligned wall measured 2.18m long by 0.22m wide. No construction cut was identified. The full extent of the two rectangular chambers was not exposed and continued beyond the eastern limit of excavation. Both chambers measured 0.48m north-south by at least 0.44m east-west. The northernmost chamber was fully excavated to a depth of 0.70m and comprised seven courses of unfrogged red brick in stretcher bond

(Plate 18). No datable artefactual material was recovered from the chambers soft dark brownish grey silty clay backfill [1008] or its friable mid brown grey construction cut backfill [1007]. The position on the structure may relate to a cluster of small structures located to the south of the possible workshop building as depicted on the 1861 Ordnance Survey map (Figure 5).

5.4 Phase 4: Early Modern (Construction of Oxford Galleries Dancehall 20th century)

5.4.1 Features, deposits and structures attributed to Phase 4 represent early to mid-20th century activity, largely associated with the construction of the 1920s Oxford Galleries Dance Hall building.

Trench 1

5.4.2 A north–south aligned brick wall [201] was the only feature within Trench 1 to be assigned to Phase 4 activity. The wall was built within a 0.20m deep narrow construction cut [202] and was recorded in section along the western edge of the trench for a maximum distance of 13.40m, continuing beyond the northern limit of excavation (Figure 4; Section 1). The wall [201] was built directly onto a *c*. 0.15m thick concrete slab and survived to a single course of brick headers (average size 230mm x 120mm x 70mm), bonded by light grey concrete mortar. The wall forms part of the foundations for the 1920s building with a series of similar foundations recorded across the site.

Trench 2

5.4.3 The earliest Phase 4 activity in Trench 2 was encountered at a depth of *c*. 0.18m below the present ground level and comprised firm dark brownish-grey clayey silt [219]. This deposit was recorded extending across the trench up to 0.26m thick and represents levelling activity undertaken prior to the construction of the Oxford Galleries building. Truncating levelling deposit [219] was a north–south aligned brick wall and associated concrete foundation [217] recorded in section within a narrow construction cut [218] that measured 0.38m wide by 0.70m deep. The wall itself consisted of two surviving courses of red brick in stretcher bond built directly onto a mid grey concrete slab and forms part of the foundation of the Oxford Galleries building (Plate 7).

Trench 3

5.4.4 Four similarly parallel north–south aligned brick wall foundations [231] which extended across Trench 3 were recorded within narrow construction cuts [232] up to 0.40m wide (Plate 9). The wall foundation generally comprised a single course of unfrogged red brick in header bond built directly onto a concrete slab *c*. 0.15m thick. The central foundation had incorporated the earlier sandstone block foundation [256] of the 19th-century stable building. All foundations had been horizontally truncated by 20th-century levelling activity and by modern construction intrusions, [234], [236] and [243]. All four foundations form part of the early 20th-century Oxford Galleries building with similar foundations present across the site.

- 5.4.5 A later brick facade [238] directly overlay the east facing elevation of the north-south aligned sandstone stable wall [247] (Plates 10, 11 & 12). It was built within a narrow construction cut [239], truncating levelling deposits [251] and [262]. The facade survived to seven courses in stretcher bond and was built directly onto a *c*. 10mm thick light grey concrete bedding layer using frogged and unfrogged red brick (average size 230mm x 110mm x 70mm), bonded with light grey concrete mortar. A further element of wall continued southwards beyond the corner of the earlier 19th-century stable wall; this was of identical construction to the brick facade [238] and has therefore been assigned the same context. Wall [238] was built within a narrow *c*. 0.36m deep construction directly onto a concrete slab and was exposed for *c*. 3m along the western edge of Trench 3 surviving to six courses in stretcher bond up to 0.82m high. No artefactual material was recovered from the backfill [260] of the construction cut. The brick facade and the brick wall that extends southwards are likely to be of a contemporary early 20th century date forming the western wall of the Oxford Galleries building (Plates 12 & 13).
- 5.4.6 To the south of the wall which formed the corner of the stable block was an east–west aligned stone block wall [225] within a narrow construction cut [227]. This was exposed for a distance of 2.40m east–west and was up to 0.50m wide (Figure 4; Section 3 & 5) (Plate 11). It was built using roughly hewn sandstone blocks (maximum 400mm x 300mm x 180mm to minimum 170mm x 300mm x 120mm) bonded by light grey lime mortar and up to three courses survived (0.44m high), encountered at maximum and minimum heights at 42.52m OD and 42.30m OD, respectively. Only a small portion of this wall survived and its function is therefore impossible to determine. The wall abuts the eastern elevation of brick wall [238] and overlays culvert the stone built portion of Phase 3 culvert [228] and is therefore likely to be of early 20th century date associated with the Oxford Galleries building, possibly representing an internal partition of this building.

Trial Pits 21, 25, 26, 27 & 30

- 5.4.7 The earliest Phase 4 activity exposed within Trial Pit 21 comprised *c*.0.30m thick firm midbrown clayey silt [101] interpreted as a ground levelling and consolidation laid down prior to the construction of the Oxford Galleries building. Later activity associated with the construction of the building included a brick facade [105] that directly overlay the stone block [104] associated with the 19th century stable building. A concrete surface [100] encountered *c*. 0.50m below present ground level overlaying the brick facade probably forms part of the floor surface associated with the Oxford Galleries building.
- 5.4.8 A substantial *c*. 1.40m thick demolition/levelling deposit [112] extended across Trial Pit 25. This contained frequent quantities of sandstone blocks and brick rubble throughout that may have derived from the demolition of the 19th-century workshop that formerly occupied this part of the site prior to the construction of the Oxford Galleries building. A brick foundation [114] within a narrow construction cut [150] extended along the eastern edge of the trial pit .The brick wall was built directly onto a *c*. 0.52m thick slab concrete [115] with the brick wall itself [114] only surviving to a single course laid in stretcher bond. It is unclear if this foundation represents the

eastern wall of the Oxford Galleries building. A single course of brick wall built directly onto a concrete slab [118] in this trial pit was similar in construction to foundations recorded in Trenches 1 and 3 and was presumably contemporary and associated with the Oxford Galleries building.

- 5.4.9 In Test Pit 26 a *c*. 0.60m thick mid brown silty clay deposit [121] levelling and consolidation deposit was associated with the construction of the Oxford Galleries building in the early part of the 20th century. An east–west aligned wall foundation [123] within a narrow construction cut [125] truncating this deposit. It was exposed for a maximum distance of 1.30m and survived to seven courses of brick (0.52m high), built directly onto a *c*. 0.62m thick concrete slab. This wall probably represents the part of the northern external wall of the Oxford Galleries building.
- 5.4.10 Phase 4 activity encountered in Trial pit 27 comprised the levelling and consolidation deposits associated with the construction of the Oxford Galleries dancehall. A masonry rubble deposit [131] was recorded across the trial pit *c*. 0.70m thick with this material probably derived from the former stable building. The external sandstone block walls of the 19th century stable building, [135] and [134], have been partially retained and brick wall [151] forming part of the Oxford Galleries building has been built directly over the original stone wall [134].
- 5.4.11 The western external wall [139] of the Oxford Galleries dancehall was exposed in Trial pit 30. An associated levelling deposit [137] was also identified.

Watching Brief

5.4.12 A brick surface [1023] was also exposed in the vicinity of Trial Pit 21 (Plate 19). The surface was located internally to the western external wall [1000] of the 1920s building and a north-south aligned internal wall [1024] to the east of the surface. The north-south aligned internal wall [1024] survived to three courses of stretcher bond and built using unfrogged red brick (average size 230mm x 100mm x 80mm), bonded by concrete mortar. The internal surface consisted of a *c*. 50mm thick light grey lime mortar sub-base [1021] extending 6.14m north-south by 2.90m east-west. This was overlain by an indurated dark blackish grey concrete surface [1022] with an average thickness of 0.10m with the brick surface [1023] laid directly onto this. The unmortared brick surface (average brick size 230mm x 100mm x 80mm) survives for an area of 1.30m north-south by 2.70m east-west and was laid in a herring bone pattern. Although the surface is located within the 19th century stable building area any internal elements of the stable building appear to have been removed prior to the construction of the 1920s surface.

5.5 Phase 5: Modern

5.5.1 Structures and features relating to modern activity on the site, including those of the groundworks taking place on site at the time of the investigations have been assigned to Phase 5.

Trench 1

5.5.2 Phase 5 activity in Trench 1 comprised loose mid brownish grey sandy silt [200] *c*. 0.40m thick and extending across the excavation area. Frequent brick rubble and large pieces of concrete were present throughout indicating this deposit was formed during the current demolition and levelling works.

Trench 2

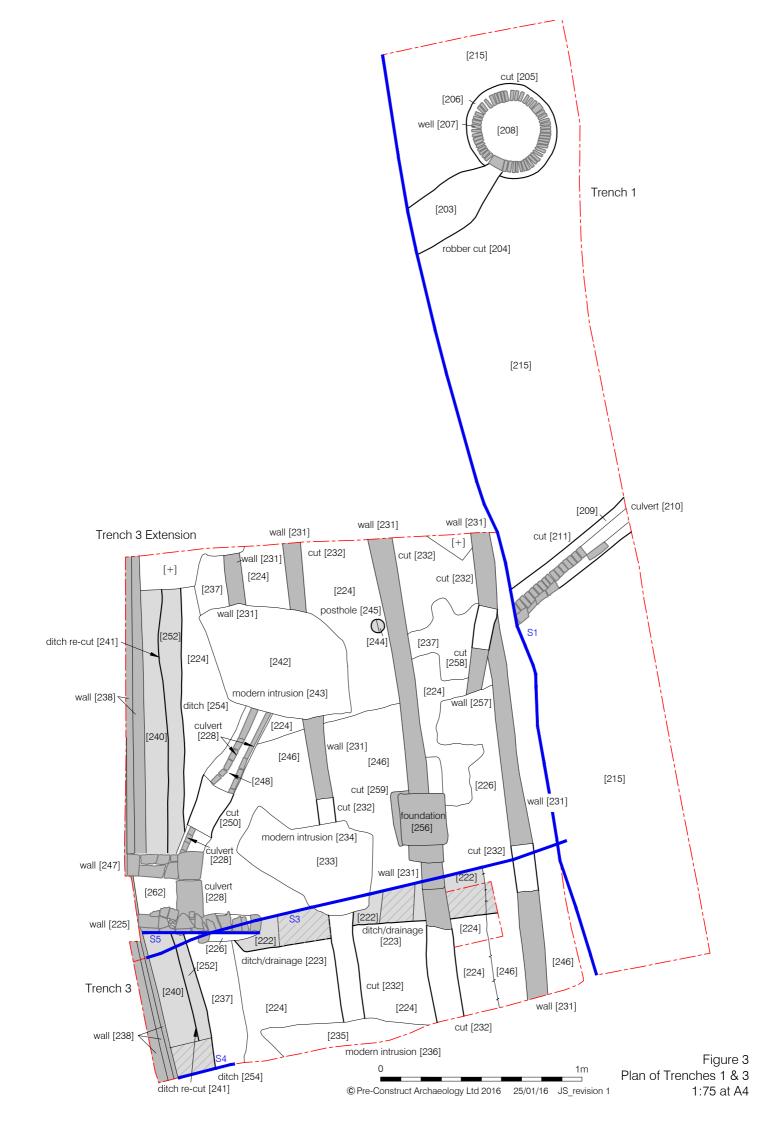
5.5.3 Trench 2 also contained a similar deposit [216] up 0.16m thick.

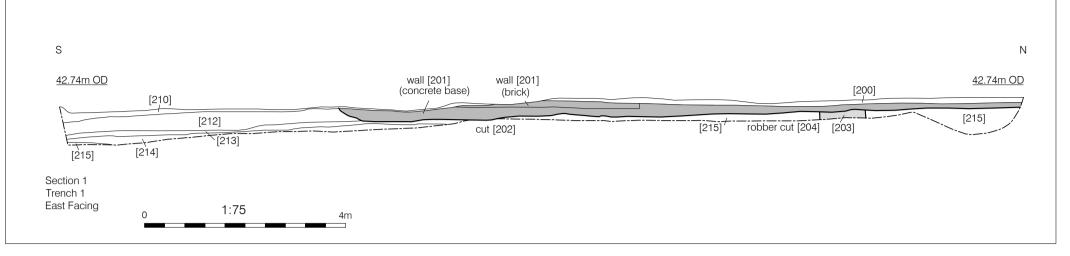
Trench 3

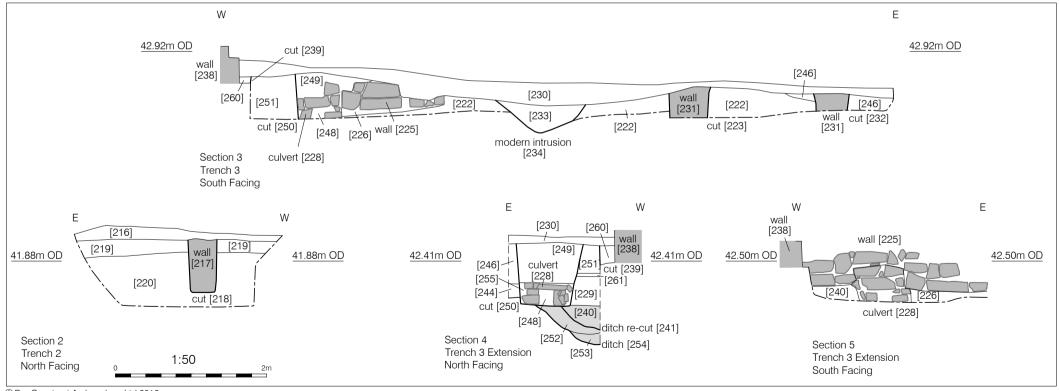
- 5.5.4 Three substantial modern intrusions [236], [234] and [243] were recorded across Trench 3. The fills of these features, [235], [233] and [242], respectively, generally comprised loose mid brownish grey sandy silt with brick rubble and modern debris. These features represent the location of substantial concrete foundation pads that were removed as part of the current demolition works. A 0.30m thick demolition and levelling deposit [230] also covered the area of excavation as in Trenches 1 and 2.
- 5.5.5 A linear feature [258] of unknown function was also exposed in the north-east corner of Trench 3 truncating Phase 4 wall foundations [231]. It measured *c*. 1.80m NE-SW and was 0.38m wide and 0.16m deep. Its single fill [257] comprised friable mid-brown sandy silt with occasional inclusions of firm yellow clay from which no datable artefactual material was recovered.

Trial Pits 20, 21 and 30

- 5.5.6 The majority of Phase 5 deposits identified in the trial pits trial were associated with the current demolition works on the site. Basements of 20th-century date were also encountered in Trial Pits 20 and 30 (Plate 16). Due to the unexpected presence of these basements, the potential for significant archaeological remains to survive in the central area of the site was considered to be very low. Trial Pit 21 revealed a timber floor surface [109] associated with the former nightclub.
- 5.5.7 A brick rubble deposit [142] recorded in Trial Pit 20 *c*. of 0.30m thick overlying the natural substratum represents a modern demolition deposit.







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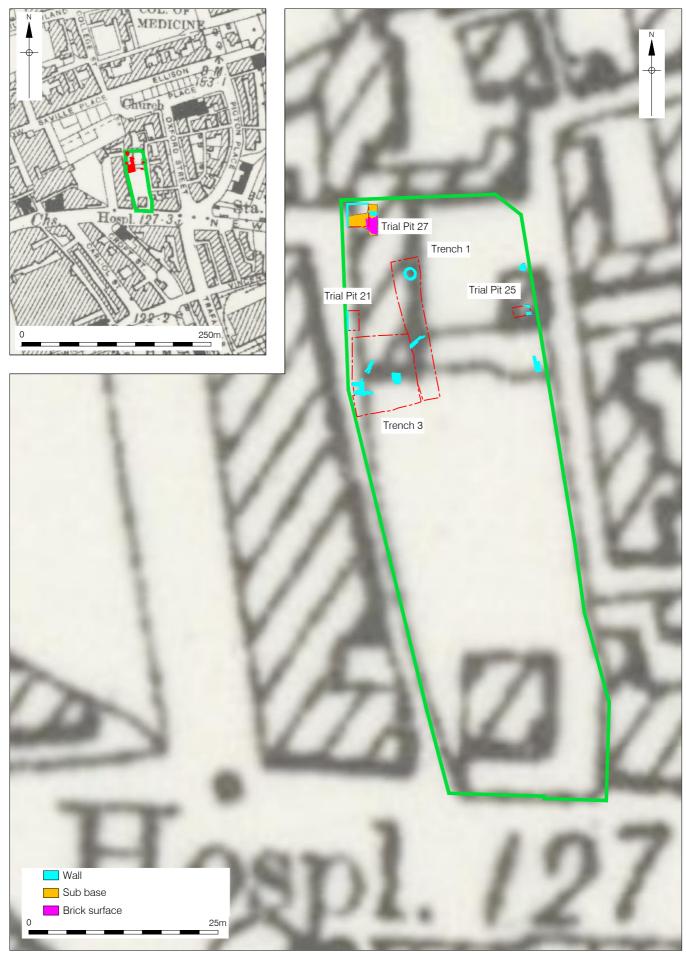
14/01/16 JS_revision 1

Figure 4 Sections 1 - 5 1:75 and 1:50 at A4



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Figure 5 19th century structural remains overlain on 1861 Ordnance Survey Map, 1st Edition 1:5,000 and 1:500 at A4



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Figure 6 19th century structural remains overlain on 1898 Ordnance Survey Map, 2nd Edition 1:5,000 and 1:500 at A4

PART B: DATA ASSESSMENT

6. STRATIGRAPHIC DATA

6.1 Paper Records

6.1.1 The paper element of the Site Archive is as follows:

Item	No.	Sheets
Context register	1	2
Context/Group Sheets	149	149
Trial Pit Sheets	6	6
Section register	1	1
Section drawings	8	8
Plans	7	19

Table 6.1: Contents of the paper archive

6.2 Photographic Records

6.2.1 The photographic element of the Site Archive is as follows:

Item	No.	Sheets
Digital photograph registers	2	6
Digital photographs	129	N/A

Table 6.2: Contents of the photographic archive

6.3 Site Archive

- 6.3.1 The complete Site Archive, including the paper and photographic records, is currently housed at the PCA Northern Regional Office.
- 6.3.2 The Site Archive will eventually be deposited with Tyne and Wear Archives and Museums at the Great North Museum, under the Site Code NBS 15, for permanent storage and the detailed requirements of the repository will be met prior to deposition.

7. FINDS ASSESSMENT

By Jenny Vaughn (NCAS)

7.1 Pottery

A small group of 24 sherds of pottery weighing 293 grams was recovered from the site. The majority of the sherds (17) were medieval, of broadly mid 13th- to early 14th-century date, although the largest context group of these also produced 17th-century sherds. One context produced exclusively 17th-century sherds and another 19th century (or later) material (see table below).

context	sherds	weight dating/comment	
213	3	11	13th/14th century
222	3	23	13th/14th century
224	12	148	17th-century slipware present
244	1	35	13th/14th century, very worn
246	2	29	17th-century slip and plain ware
248	3	48	19th century or later

7.2 Types present

context	fabric	fabric no	sherds	weight	comments
213	pink fabric	4	1	4	sooted exterior
213	buff white	4	1	2	
213	sandy glazed ware	6	1	4	i.e. an early green glazed type
222	buff white	4	1	10	some glaze spots
222	pink/grey	4	1	9	soft worn pale pink with partial grey core
222	sandy buff-pink	4	1	4	
224	buff white	4	3	32	
224	pink	4	2	17	both sooted externally, one coarser
224	buff grey	6	1	4	thin sandy sherd, buff surface, small spot glaze
224	part-oxidised grey	7	2	47	mid grey with oxidised exteriors, possibly from reduced green glazed vessels of later 13th/14th-c. date
224	green glazed white ware	10	1	18	worn sandy white sherd with copper green glaze, mottled darker in places, possibly a Yorkshire type
224	orange	10	1	4	very worn orange with thin grey core
224	red slipware	27	1	23	part of dish, including rim flange, with slip dots
224	redware	27	1	3	partly flaked
244	iron rich	6	1	35	strap handle, very worn dark grey fabric with partial pink surface underneath, probably an early green glazed ware, sandy fabric
246	redware	27	1	15	light red, greyish external surface
246	red slipware	27	1	14	some trailed slip dec, also sooting though this is over break so ?post-depositon
248	refined whiteware	33	1	20	plain

context	fabric	fabric no	sherds	weight	comments
	refined yellow ware	34	2	28	jug rim with spout, yellow-buff with white (slip) bands

- 7.2.1 Fabric Group 4 are the light-firing, 'less iron rich' wares which covers a variety of buff, white and pale pink fabrics. There were a few sherds of Tyneside type buff-white ware. Others are part of the wider regional group but not particularly diagnostic.
- 7.2.2 Fabric Group 6 are sandy wares, grey-cored with lighter buff or pink surfaces (if not glazed) which include early green-glazed types. There were only two small sherds and a larger, but very worn, fragment of strap handle.
- 7.2.3 Other medieval sherds are as described in the catalogue. Group 10 is used for general medieval and possibly non-local wares.
- 7.2.4 Fabric Group 27, red earthenwares, both plain and with slip trailed decoration, are found in large quantities on Tyneside in the 17th century.
- 7.2.5 The refined wares of Groups 33 and 34 are 19th century, or possibly later.

7.3 Discussion

7.3.1 Apart from the fragment of possible Yorkshire whiteware the medieval component consists of broadly local/regional types. Most sherds are quite small and some are very worn so the context 'spot-dating' given above should perhaps be treated with caution. There is no identifiably late medieval pottery present, which may, or may not be significant given the small size of the assemblage.

7.4 Clay Tobacco Pipe

- 7.4.1 A small fragment of clay pipe bowl was recovered from context [246]. The precise form could not be identified, but the size of the bore and general character of the piece indicate a mid to late 17th-century date, as does the pottery from this context.
- 7.4.2 A piece of pipe stem was recovered from [248]. This is also likely to be the same date as the pottery from this context, i.e. 19th century.

7.5 Copper-Alloy Object

7.5.1 A small copper-alloy object identified as part of a toy cannon was also recovered from [248]. This measured 50mm in total length with the muzzle 7mm long and the bore *c*. 3mm in diameter. Pottery dating from the 19th century was also recovered from this deposit, a silting deposit in culvert [228].

8. SUMMARY DISCUSSION OF THE ARCHAEOLOGICAL FINDINGS

8.1 Phase 1: Natural Sub-Stratum

- 9.1.1 Natural clays representing glacial till were encountered in all trial pits and trenches. The level at which natural sub-stratum was encountered demonstrated the natural topography of the area, sloping gradually down towards the River Tyne to the south of the site. The highest level was 42.11m OD in Trench 1, the northernmost trench, and the minimum was 41.28m OD in Trench 2, the southernmost.
- 9.1.2 The original topography of the site had also been established by earlier geotechnical investigations indicating that the ground slopes down from north to south towards the River Tyne. The true topography has been masked by levelling and consolidation activity associated with the later post-medieval development of the site and the wider area.

8.2 Phase 2: Medieval

- 8.2.1 The DBA established that the site was located just outside of the medieval town walls and east of Pandon Dene, a tributary of the River Tyne, and was probably open agricultural land throughout the medieval period and into the early part of the 19th century.
- 8.2.2 In Trenches 1 and 3 medieval developed soils were encountered which suggest this area was utilised for agricultural activity during the medieval period. Further exposure of the developed soil was exposed intermittently across the northern part of the site during the final watching brief phase of archaeological work. A small assemblage of 13th- to 14th-century pottery was recovered from these deposits which comprised local and regional wares, not considered to be of high status. This material presumably arrived at the site through manuring of agricultural fields; midden deposits were used throughout the medieval and post-medieval periods to fertilise the land.
- 8.2.3 Two ditches of probable medieval date recorded in Trench 3 are considered likely to represent boundary and drainage features delimiting a parcel of agricultural land. The smaller of these was a shallow east-west aligned ditch with a more substantial north-south aligned ditch partially exposed along the western edge of the site, the latter of which was further exposed south of Trench 3. The full extent of the north-south ditch could not be fully exposed as its western edge lay outside the area of excavation. Three sherds of pottery of 13th- to 14th-century date were recovered from the east–west ditch and were observed to be very worn, possibly the result of agricultural activity on the site such as ploughing. No datable material was recovered from the larger ditch, however the sterile nature of its fills suggest a similar medieval date.
- 8.2.4 A shallow posthole was also identified in Trench 3. It is likely that the top of the feature has been truncated by later levelling activity with only the base of this feature surviving. A single sherd of medieval pottery was recovered from its fill identified as a possible early green glazed vessel dating to the 13th or 14th century. No other associated features were recorded.

8.3 Phase 3: Post-medieval (17th-early 20th century)

- 8.3.1 Cartographic evidence demonstrates that the site remained as open agricultural land until the early part of the 19th century. With the rapid industrialisation of Newcastle during this period there was necessity for improved communications throughout the city. The 'New Bridge' across Pandon Dene was constructed in 1812 and the assessment area saw significant development as improved transport links made the area more accessible and a desirable place to live.
- 8.3.2 The earlier north–south aligned ditch feature was re-cut indicating that this boundary was still in use during the post-medieval period. The recut ditch appears to have been backfilled ahead of the development of the site as the house and gardens for John Dobson. More widespread levelling and consolidation deposits ahead of the construction of the house, gardens and yard area were recorded in Trenches 1–3 and Test Pits 21, 25 and 26.
- 8.3.3 The first structure shown on mapping of the site was John Dobson's House, constructed *c*. 1825 in the southern part of the development site. Cartographic evidence shows that a garden landscape was situated at the back of the house, with a stable and yard area in the northern part of the site beyond the garden area. The stable block was a long north–south aligned building lining the western side of the plot of land in which the house stood. The Ordnance Survey first edition map of 1861 shows that by this date there were additional buildings to the east of the stable within the yard area, described as workshops in an advertisement for the sale of John Dobson's House in 1911. The northern end of the stable block was extended at the right angles to the east between 1861 and 1898.
- 8.3.4 Structural elements of these buildings were identified in Trenches 1 and 3 and Trial Pits 21, 25 and 27. A brick-lined well in Trench 1 is not depicted on 19th-mapping of the area, but this would have been located within the yard area, adjacent to the stables, and was presumably associated with this use of the site.
- 8.3.5 The north-western and south-western corners of the stable building were exposed in Trench 3 and Test Pit 27, with a length of the west wall also exposed along the edge of Trench 3. A sandstone block foundation in Trench 3 is likely to have formed the south-eastern corner of the stable building. The stable block as recorded within the investigated areas therefore measured *c*. 22m north–south and 7m wide, broadly corresponding with the stable building depicted on the 1861 and 1898 Ordnance Survey Maps.
- 8.3.6 No surfaces relating to the stable structure survived, with the exception of a small area of brick surface exposed in a geotechnical trial pit in the north-western corner of the site. The surface was surrounded by stone walls to the west and north indicating it was an internal floor. The surface was re-exposed during the later watching brief revealing more of the internal brick surface and a larger area of associated levelling deposits and sub-base. A possible east-west aligned internal wall, identified during trial pitting, was not revealed during the later phase of works and may have been truncated by current ground works. Another east-west aligned structure was also revealed north of the brick surface but with limited survival, it was not clear

as to the function of the structure but is thought to be contemporary with the internal surfaces. The western wall in this trial pit is presumed to be the continuation of the original stable walls, as identified in Trench 3, with the lower stone courses retained. The masonry to the north of the brick surface appeared to be later than the western wall and therefore could be a surviving external wall of the late 19th-century stable extension.

- 8.3.7 Lengths of stone and brick culverts in Trenches 1 and 3 represent drainage structures associated with the yard area.
- 8.3.8 The workshop structure, located in the north-east of the site, appears to have been almost entirely removed by 20th-century levelling or demolition activity with only a small portion of sandstone block wall exposed in the base of Trial Pit 25 which survived to two courses. This wall probably represents the southernmost wall of the workshop building as depicted on the 1861 and 1898 Ordnance Survey maps. A sandstone wall with a brick facade also identified during the watching brief just north of Trial Pit 25 which probably formed the northern most wall of the workshop building.
- 8.3.9 To the south of Trial Pit 25, a brick structure consisting of a north-south aligned external brick wall and two internal rectangular brick chambers were identified. The function of these were unclear but probably represent structural elements associated with the workshop. There are some smaller features indicated on the 19th-century O.S maps near the southern wall of the workshop, it is most likely that the structures exposed in the watching brief relate to these.

8.4 Phase 4: Early Modern (Construction of Oxford Galleries Dance Hall)

8.4.1 The 1920s saw the construction of the dance hall and restaurant attached to the rear of John Dobson's House. The building incorporated some of the external walls of the stable structure but the internal features and surfaces were removed during the terracing of the site. The western external wall of the stables appears to have been retained as part of the building and part of the southern external wall and foundations were also retained. The eastern wall of the stable block was removed during the construction of the 20th-century foundations. The only elements of the 1920s building exposed relate to the foundations of the structure, and are not considered to be of archaeological interest.

8.5 Recommendations

8.5.1 This grey literature report is considered sufficient for the site assessment and no further archaeological work is necessary.

9. SIGNIFICANCE OF THE PROJECT DATA AND SUMMARY OF POTENTIAL FOR FURTHER ANALYSIS

- 10.1 The archaeological and artefactual remains encountered during the trial trenching evaluation and excavation at the development site are considered to be of moderate significance at a local level and low significance at a regional level.
- 10.2 The archaeological investigations demonstrated the limited survival of buried remains of medieval date at the site. These are considered to be of moderate significance at local level only; the medieval archaeological remains represent only limited survival of field boundaries and a developed plough soil which would have formed part of an agricultural field system located between the Pandon Burn and the City Walls of Newcastle. The medieval evidence uncovered at the site would therefore not be considered of regional significance.
- 10.3 The exposure of a ditch feature running along the western edge of the assessment area is of local importance. Assessment of this feature was limited as the full extent was not exposed; the western retaining wall above the ditch feature is due to be incorporated into the construction scheme, therefore the ditch is expected to be preserved in-situ.
- 10.4 The 19th-century remains of structures relating to the stable block and yard area associated with John Dobson's House are considered to be of high local significance. Although no internal features from the structures were surviving, the evaluation gave an insight into the external architecture of the stables and the presence of a well associated with the yard was previously undocumented. The significance of these findings are considered to be of moderate regional importance given the status of John Dobson as a renowned North East architect and his contribution to the city of Newcastle upon Tyne.
- 10.5 The early modern remains associated with the 1920s dancehall are considered to be of low significance. The features exposed provide no information into the use of the building as only the foundations were exposed. The external walls of the building were found to have incorporated some of the 19th century structures which was previously undocumented.
- 10.6 No further work is required on the stratigraphic data recovered from the investigations. The medieval pottery assemblage recovered from the site consists of mainly local and regional wares, commonly found in Newcastle in this period. The assemblage is not considered to be of regional significance and no further work is recommended on the material. Similarly the post-medieval artefactual material is considered to be of low significance and no further work is recommended.
- 10.7 The limited results of the archaeological investigations do not merit publication as a standalone paper as this grey literature report has detailed the work. However if the building recording undertaken on John Dobson's House is published, a brief description of the structural remains of the stable and yard area associated with his house identified during the archaeological investigations should be included

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11. ACKNOWLEDGEMENTS AND CREDITS

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Fieldwork: Aaron Goode (Site Supervisor), Dave Green

Post-excavation management: Jenny Proctor

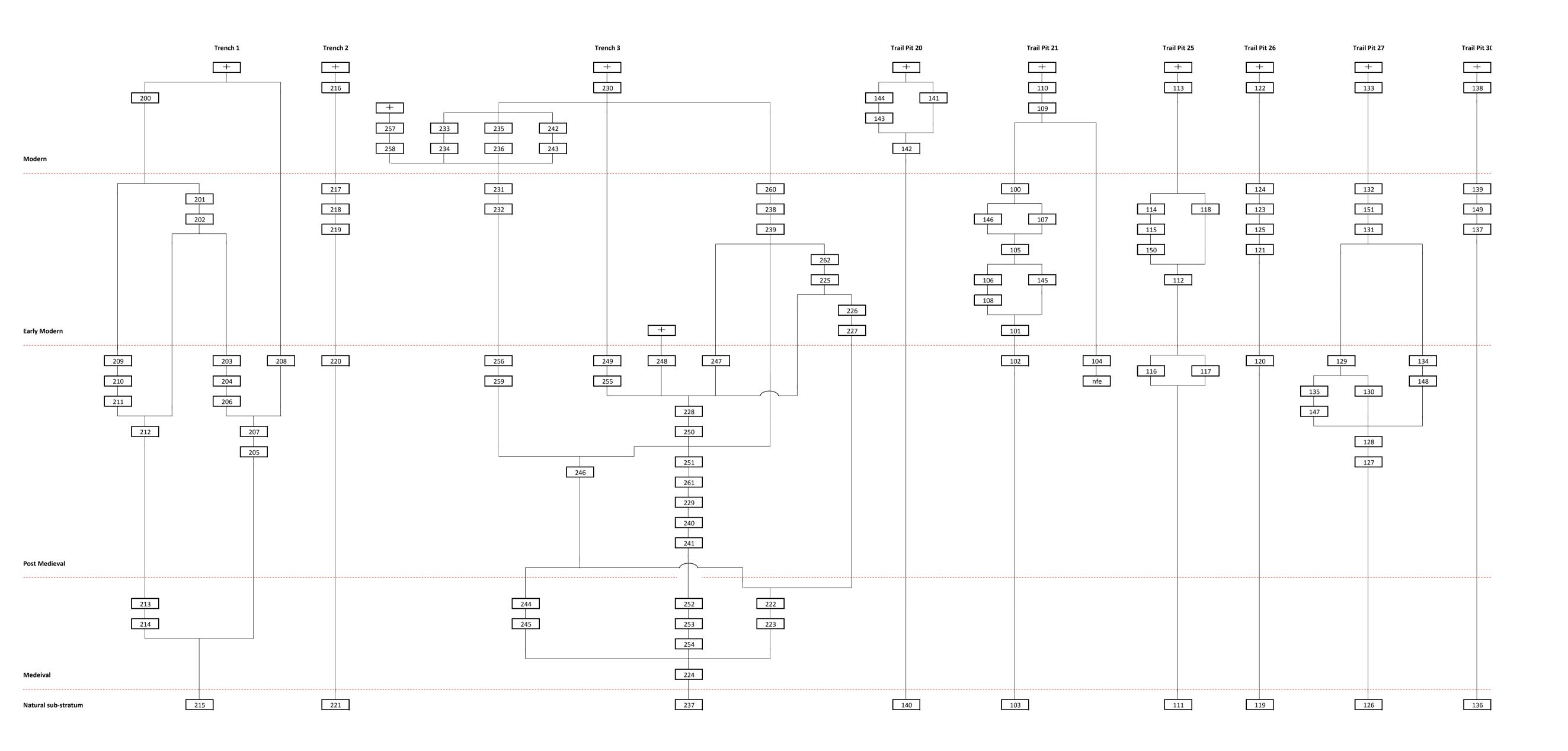
Report: Dave Green and Aaron Goode

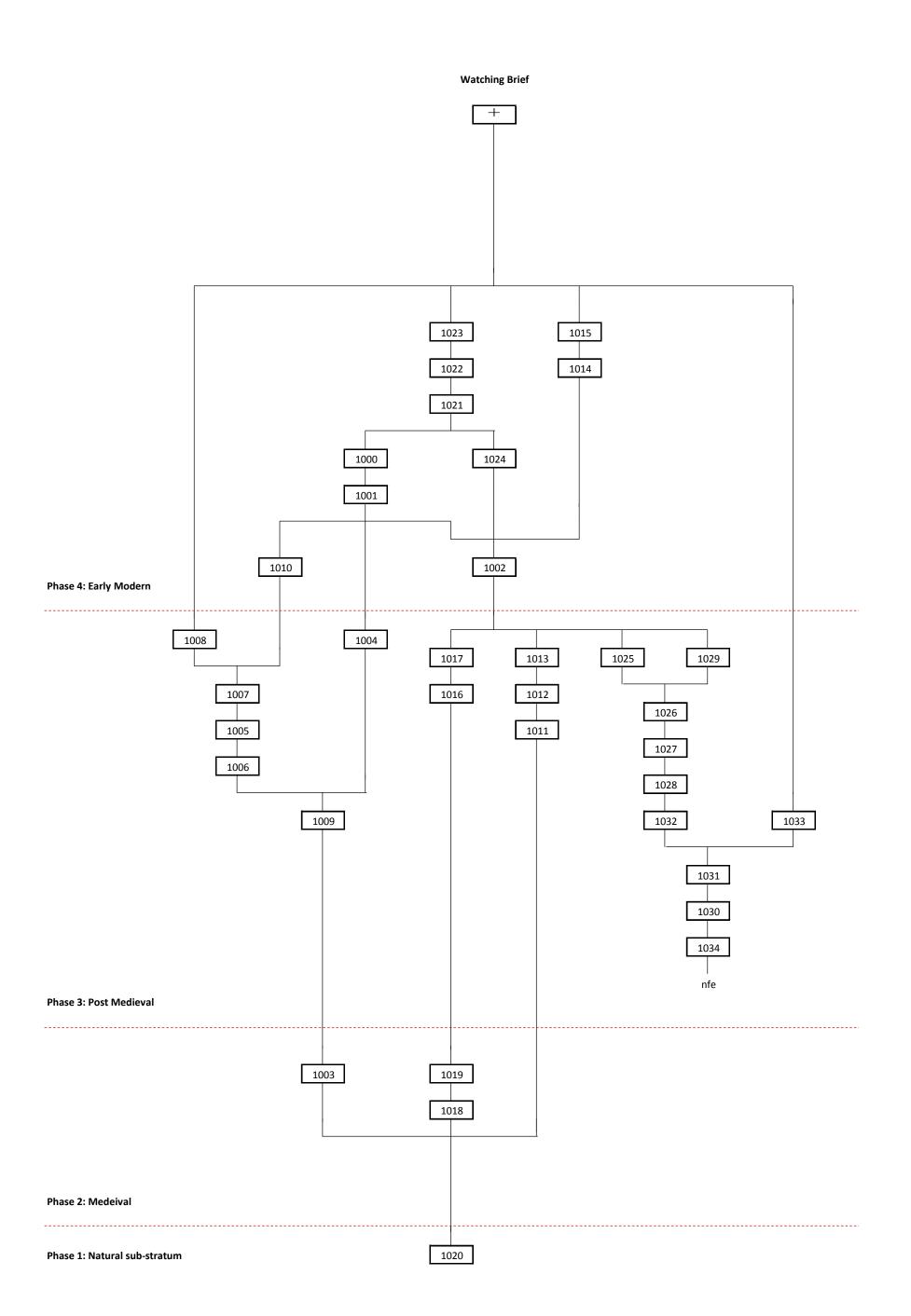
Illustrations: Jennifer Simonson

Other Credits

Artefact report: Jenny Vaughan (NCAS)

APPENDIX 1 STRATIGRAPHIC MATRICES





APPENDIX 2 CONTEXT INDEX

			Context in		
Context	Trench	Phase	Туре 1	Type 2	Interpretation
100	21	4	Deposit	Structure	Concrete slab
101	21	4	Deposit	Layer	Levelling deposit
102	21	3	Deposit	Layer	Levelling deposit
103	21	1	Deposit	Layer	Natural sub-stratum
104	21	3	Masonry	Wall	Stone block wall
105	21	4	Masonry	Wall	Brick wall
106	21	4	Deposit	Fill	Concrete foundation
107	21	4	Deposit	Fill	Backfill of [108]
108	21	4	Cut	Linear	Construction cut of wall [105]
109	21	5	Timber	Horizontal	Timber floor surface
110	21	5	Deposit	Structure	Concrete slab
111	25	1	Deposit	Layer	Natural sub-stratum
112	25	4	Deposit	Layer	Levelling deposit
113	25	5	Deposit	Layer	Modern rubble
114	25	4	Masonry	Wall	Brick wall
115	25	4	Deposit	Structure	Concrete
116	25	3	Masonry	Wall	Brick wall
117	25	3	Masonry	Culvert	Stone culvert
118	25	4	Masonry	Wall	Brick wall
119	26	1	Deposit	Layer	Natural sub-stratum
120	26	3	Deposit	Layer	Redeposited natural
121	26	4	Deposit	Layer	Levelling deposit
122	26	5	Deposit	Layer	Modern rubble
123	26	4	Masonry	Wall	Brick wall with concrete foundation
124	26	4	Deposit	Fill	Backfill of [125]
125	26	4	Cut	Linear	Construction cut of wall [123]
126	27	1	Deposit	Layer	Natural sub-stratum
127	27	3	Deposit	Layer	Redeposited natural
128	27	3	Deposit	Layer	Sand levelling deposit
129	27	3	Masonry	Wall	Brick wall
130	27	3	Masonry	Surface	Brick surface
131	27	4	Deposit	Layer	Rubble deposit
132	27	4	Deposit	Structure	Concrete surface
133	27	5	Deposit	Layer	Rubble deposit
134	27	3	Masonry	Wall	Brick wall
135	27	3	Masonry	Wall	Brick wall
136	30	1	Deposit	Layer	Natural sub-stratum
137	30	4	Deposit	Layer	Natural sub-stratum
138	30	5	Deposit	Layer	Levelling deposit
139	30	4	Masonry	Wall	Brick wall
140	20	1	Deposit	Layer	Natural sub-stratum
141	20	4	Deposit	Layer	Rubble deposit
142	20	5	Deposit	Structure	Concrete foundation
143	20	5	Deposit	Structure	Concrete foundation
144	20	5	Masonry	Wall	Brick wall
145	21	4	Cut	Linear	Construction cut for wall [105]
146	21	4	Deposit	Fill	Backfill of [145]
147	27	3	Cut	Linear	Construction cut for wall [135]
148	27	3	Cut	Linear	Construction cut for wall [134]
149	30	4	Cut	Linear	Construction cut for wall [139]
150	25	4	Cut	Linear	Construstion cut for wall [114]
151	27	4	Masonry	Wall	Brick wall
200	1	5	Deposit	Layer	Modern levelling deposit
201	1	4	Masonry	Wall	Brick wall with concrete foundation
202	1	4	Cut	Linear	Construction cut for wall [201]
203	1	3	Deposit	Fill	Fill of [204]
204	1	3	Cut	Curvilinear	Possible robbed out culvert
205	1	3	Cut	Circular	Construction cut for well [207]
	1 1	3 3	Cut Deposit	Circular Fill	Construction cut for well [207] Backfill of [205]

NBS 15 Context index

208	1	3	Deposit	Layer	Infill of well [207]
208	1	4	Deposit	Fill	Backfill of [211]
209	1	4	Masonry	Wall	Brick wall
		-	,		
211	1	4	Cut	Linear	Construction cut for wall [210]
212	1	3	Deposit	Layer	Levelling deposit
213	1	2	Deposit	Layer	Developed soil
214	1	2	Deposit	Layer	Developed soil
215	1	1	Deposit	Layer	Natural sub-stratum
216	2	5	Deposit	Layer	Levelling deposit
217	2	4	Masonry	Wall	Brick wall with concrete foundation
218	2	4	Cut	Linear	Construction cut for wall [217]
219	2	4	Deposit	Layer	Levelling deposit
220	2	3	Deposit	Layer	Levelling deposit
221	2	1	Deposit	Layer	Natural sub-stratum
222	3	2	Deposit	Fill	Fill of [223]
223	3	2	Cut	Linear	Possible drainage feature/ditch
224	3	2	Deposit	Layer	Medeival developed soil
225	3	4	Masonry	Wall	Stone wall
226	3	4	Deposit	Fill	Consolidation deposit for wall [225]
220	3	4	Cut	Linear	Construction cut for walls [228] and [225]
228	3	3	Masonry	Wall	Brick and sandstone wall
229	-	3	Deposit	Layer	Levelling deposit
230	3	5	Deposit	Layer	Levelling deposit
231	3	4	Group	Deposit	Linear wall foundations
232	3	4	Group	Cut	Construction cut for walls [231]
233	3	5	Deposit	Fill	Fill of [234]
234	3	5	Cut	Discrete	Modern intrusion
235	3	5	Deposit	Fill	Fill of [236]
236	3	5	Cut	Discrete	Modern intrusion
237	3	1	Deposit	Layer	Natural sub-stratum
238	3	4	Masonry	Wall	Brick wall with concrete foundation
239	3	4	Cut	Linear	Construction cut for wall [238]
240	3	3	Deposit	Fill	Fill of [241]
241	3	3	Cut	Linear	Possible ditch re-cut
242	3	5	Deposit	Fill	Fill of [243]
243	3	5	Cut	Discrete	Modern intrusion
244	3	2	Deposit	Fill	Fill of [245]
244	3	2	Cut	Discrete	Cut of post hole
	-	-			
246	3	3	Deposit	Layer	Levelling deposit
247	3	3	Masonry	Wall	Sandstone wall
248	3	3	Deposit	Layer	Silting up of culvert [228]
249	3	3	Deposit	Fill	Backfill of culvert [228]
250	3	3	Cut	Linear	Construction cut for culvert [288]
251	3	3	Deposit	Layer	Levelling deposit
252	3	2	Deposit	Fill	Upper fill of [254]
253	3	2	Deposit	Fill	Primary fill of [254]
254	3	2	Cut	Linear	Cut of possible ditch
255	3	3	Deposit	Fill	Backfill of construction cut [250]
256	3	3	Masonry	Wall	Wall foundations
257	3	5	Deposit	Fill	Fill of [258]
258	3	5	Cut	Linear	Linear feature
259	3	3	Cut	Discrete	Construction cut for foundations [256]
260	3	4	Deposit	Fill	Backfill of construction cut [239]
261	3	3	Deposit	Layer	Levelling deposit
261	3	4	Deposit		Levelling deposit
	-	-		Layer	
1000	WB	4	Masonry	Wall	Brick wall
1001	WB	4	Deposit	Structure	Concrete foundation of wall [1000]
1002	WB	4	Deposit	Layer	Modern levelling / demolition
1003	WB	2	Deposit	Layer	Medeival developed soil
	WB	3	Masonry	Wall	Sandstone wall with brick façade
1004					
1005	WB	3	Masonry	Structure	Rectangular brick features
				Structure Rectangular	Rectangular brick features Construction cut for [1005]

1008	WB	3	Deposit	Fill	Infill of [1005]
1009	WB	3	Deposit	Layer	Levelling / Consolidation deposit
1010	WB	4	Timber	Horizontal	Timber lintel
1011	WB	3	Cut	Linear	Construction cut for culvert [1012]
1012	WB	3	Masonry	Culvert	Stone culvert
1013	WB	3	Deposit	Fill	Infill of culvert [1012]
1014	WB	4	Cut	Discrete	Modern truncation
1015	WB	4	Deposit	Fill	Fill of [1014]
1016	WB	3	Cut	Linear	Cut of drainage feature
1017	WB	3	Deposit	Fill	Fill of [1016]
1018	WB	2	Cut	Linear	Cut of ditch
1019	WB	2	Deposit	Fill	Fill of [1018]
1020	WB	1	Deposit	Layer	Natural sub-stratum
1021	WB	4	Deposit	Layer	Mortar sub-base for surface 1022
1022	WB	4	Deposit	Surface	Concrete surface
1023	WB	4	Masonry	Surface	Brick surface
1024	WB	4	Masonry	Wall	Brick wall
1025	WB	3	Masonry	Surface	Brick surface
1026	WB	3	Deposit	Layer	Sub-base for surface [1025]
1027	WB	3	Deposit	Layer	Levelling deposit
1028	WB	3	Deposit	Layer	Levelling deposit
1029	WB	3	Masonry	Structure	Linear structure
1030	WB	3	Cut	Linear	Construction cut for culvert [1031]
1031	WB	3	Masonry	Culvert	Brick culvert with sandstone capping
1032	WB	3	Deposit	Fill	Post construction backfill of [1030]
1033	WB	3	Deposit	Fill	Infill of culvert [1031]
1034	WB	3	Deposit	Layer	Levelling / consolidation deposit

208	1		3 Deposit	Layer	Infill of well [207]
208	1		1 Deposit	Fill	Backfill of [211]
209	1		1 Masonry	Wall	Brick wall
210	1		1 Cut	-	
211	1		B Deposit	Linear	Construction cut for wall [210] Levelling deposit
212	1		2 Deposit	Layer	Developed soil
				Layer	
214	1		2 Deposit	Layer	Developed soil
215	1		L Deposit	Layer	Natural sub-stratum
216	2		Deposit	Layer	Levelling deposit
217	2		1 Masonry	Wall	Brick wall with concrete foundation
218	2		1 Cut	Linear	Construction cut for wall [217]
219	2		1 Deposit	Layer	Levelling deposit
220	2		B Deposit	Layer	Levelling deposit
221	2		L Deposit	Layer	Natural sub-stratum
222	3		2 Deposit	Fill	Fill of [223]
223	3		2 Cut	Linear	Possible drainage feature/ditch
224	3		2 Deposit	Layer	Medeival developed soil
225	3		1 Masonry	Wall	Stone wall
226	3		1 Deposit	Fill	Consolidation deposit for wall [225]
227	3		1 Cut	Linear	Construction cut for walls [228] and [225]
228	3		3 Masonry	Wall	Brick and sandstone wall
229	3		B Deposit	Layer	Levelling deposit
230	3		5 Deposit	Layer	Levelling deposit
231	3		1 Group	Deposit	Linear wall foundations
232	3		1 Group	Cut	Construction cut for walls [231]
233	3		Deposit	Fill	Fill of [234]
234	3		5 Cut	Discrete	Modern intrusion
235	3		Deposit	Fill	Fill of [236]
236	3		5 Cut	Discrete	Modern intrusion
237	3		L Deposit	Layer	Natural sub-stratum
238	3		1 Masonry	Wall	Brick wall with concrete foundation
239	3		1 Cut	Linear	Construction cut for wall [238]
240	3		3 Deposit	Fill	Fill of [241]
241	3		3 Cut	Linear	Possible ditch re-cut
242	3		Deposit	Fill	Fill of [243]
243	3		5 Cut	Discrete	Modern intrusion
244	3		2 Deposit	Fill	Fill of [245]
245	3		2 Cut	Discrete	Cut of post hole
246	3		3 Deposit	Layer	Levelling deposit
247	3		8 Masonry	Wall	Sandstone wall
248	3		3 Deposit	Layer	Silting up of culvert [228]
249	3		3 Deposit	Fill	Backfill of culvert [228]
250	3		3 Cut	Linear	Construction cut for culvert [288]
251	3		3 Deposit	Layer	Levelling deposit
252	3		2 Deposit	Fill	Upper fill of [254]
253	3		2 Deposit	Fill	Primary fill of [254]
254	3		2 Cut	Linear	Cut of possible ditch
255	3		3 Deposit	Fill	Backfill of construction cut [250]
256	3		3 Masonry	Wall	Wall foundations
257	3	1	Deposit	Fill	Fill of [258]
258	3	1	5 Cut	Linear	Linear feature
			3 Cut	Discrete	Construction cut for foundations [256]
259	3				
259 260	3		1 Deposit	Fill	Backfill of construction cut [239]
				Fill Layer	Backfill of construction cut [239] Levelling deposit



Plate 1. Overview, showing location of Trench 1



Plate 2. Overview, showing location of Trench 3



Plate 3. Trench 3, detail of posthole [245], looking east (scale 0.5m)



Plate 4. Trench 3, ditch [254] and re-cut [241], also showing culvert [228], looking south (scale 1m)



Plate 5. Trench 1, brick-lined well [207] and backfill [208], looking south (scale 1m)



Plate 6. Trench 1 overview , culvert [203], also showing brick-lined well [207] in the foreground, looking south (scale 2m)



Plate 7. Trench 2, north facing section, showing brick and concrete foundation [217], looking south (scale 1m)



Plate 8. Trench 3 overview, showing stone block foundation [256], wall [247] and later brick wall elements [238], looking west (scale 2m)



Plate 9. Trench 3 overview, showing early 20th-century foundations [231], looking south east, (scale 2m)



Plate 10. Trench 3 showing brick element of culvert [228] and stable building wall [247], looking south (scale 1m)



Plate 11. Trench 3 showing stone element of culvert [228] and stone block wall [225], looking north (scale 1m)



Plate 12. Trench 3 showing stable building wall [247] and 20th-century brick wall elements [238], looking west (scale 1m)



Plate 13. Trench 3 overview, looking south-west (scale 2m)



Plate 14. Trial Pit 27 showing brick surface [130] in north-west.



Plate 15. Trial Pit 27, showing detail of brick wall [129], looking south-west.



Plate 16. Trial Pit 20 showing basemented building in the centre of the site, looking west (scale 1m)



Plate 17. East–west aligned stone wall with brick façade [1004], possibly a surviving element of the workshop's external wall, looking east (scale 0.10m)



Plate 18. Rectangular brick structures at eastern edge of assessment area [1005], looking north (scale 1m)



Plate 19. 20th-century brick and concrete surface [1023], looking south (scale 2m)



Plate 20. Possible internal surface in northwest corner of site [1025], also showing east-west aligned structure [1029], looking west (scale 1m)



Plate 21. Brick culvert [1031] beneath internal surface [1026] and structure [1029], looking west (scale 1m)

Tyne and Wear Specialist Conservation Team

Specification for Preliminary Archaeological Evaluation at Liquid/Envy Nightclub, 49 New Bridge Street West and John Dobson House, Newcastle upon Tyne NE1 8AN

Planning Application: 2014/00001/01/DET

Author:

Jennifer Morrison Tyne and Wear Archaeology Officer Newcastle City Council Development Management 9th Floor Civic Centre Barras Bridge Newcastle upon Tyne NE1 8PH Tel (0191) 2116218 jennifer.morrison@newcastle.gov.uk

Date: 3 March 2015

County Archaeologist's Reference Number: MON11356

The Tyne and Wear Specialist Conservation Team is the curatorial service for archaeology, industrial archaeology and historic buildings throughout the Tyne and Wear districts. It helps and advises Newcastle, Gateshead, North Tyneside, South Tyneside and Sunderland Councils to carry out their statutory duties to care for the precious historic environment of Tyneside and Wearside. The Team can be found at the Housing, Planning and Transport Division of the Environment & Regeneration Directorate of



Introduction

Site grid reference: NZ 2516 6455

A planning application has been submitted for

Partial demolition and erection of 50 shared cluster apartments (305 bed spaces) 7, 9 and 11 storeys high for student accommodation (Class C4/Sui Generies) with associated landscaping and provision of retail units (Class A1) at ground floor. Conversion of John Dobson House and part of existing building to cafe, bar and restaurant/function room (Class A3/A4) including refurbishment of entrance portico, erection of extension to west side and erection of lightweight pavilion behind the Oxford Gallery portico

An archaeological desk based assessment has been completed (Bernicia, 2013). The appointed archaeologist must familiarise themselves with the results of the assessment before starting work.

The former house of John Dobson is listed grade 2* and will be retained as part of this development.

The building to the rear (former Oxford Galleries dance hall built in the 1920s) will be demolished.

Both the listed and unlisted building will be archaeologically recorded before demolition begins (separate specification).

The archaeological desk based assessment states that the site lies outside the medieval town walls and is probably beyond the line of the associated ditch. The site was probably used for cultivation or pasture.

This stretch of the town wall saw action during the Civil War and siege of Newcastle. Cannon balls and human remains were found at nearby Carliol Tower. Plummer Tower served as an artillery position. A stone built bastion or bulwark was added in the C17.

Evidence for glass manufacture was recorded on the City Library site.

Once the town began to expand beyond the town walls, the steep sided Pandon dene east of the site formed a natural boundary to this expansion. After the construction of the Pandon bridge in 1812 and New Bridge Street, the area became a desirable place to live. John Dobson was the principal architect for this development of affluent villas and terraces. John Dobson's own house had a large garden to the rear and stables and a workshop. He displayed his collection of architectural fragments in his garden. Today own John Dobson's house and three terraced houses on Higham Place survive. All the only villas and terraces have been demolished.

The desk based assessment concludes that the plot is a rare un-cellared pocket of land and is likely to have a very good chance of archaeological deposits and structures surviving in-situ.

In accordance with paragraph 141 of the National Planning Policy Framework and UDP Policy C4.2 a programme of archaeological evaluation is required. This will take place after the demolition of the 1920s dance hall. The building will be demolished to ground level only. Foundations will not be grubbed up as part of the demolition contract as this may damage archaeological remains.

Research Aims and Objectives

The evaluation report should make reference to Regional and Thematic Research Frameworks.

'Shared Visions: The North-East Regional Research Framework for the Historic Environment' by David Petts with Christopher Gerrard, 2006 notes the importance of research as a vital element of development-led archaeological work. It sets out key research priorities for all periods of the past allowing commercial contractors to demonstrate how their fieldwork relates to wider regional and national priorities for the study of archaeology and the historic environment. The aim of NERRF is to ensure that all fieldwork is carried out in a secure research context and that commercial contractors ensure that their investigations ask the right questions.

See http://www.algao.org.uk/Association/England/Regions/ResFwks.htm

'Frontiers of Knowledge' edited by Matthew FA Symonds and David JP Mason 2010 is the Research Framework for Hadrian's Wall, part of the Frontiers of the Roman Empire World Heritage Site. The aim of the publication is to assess the existing knowledge base for our understanding of the monument, to identify and prioritise key themes for future research and to set out a strategy and action plan by which the initial set of objectives might be achieved.

For the English Heritage Research Agenda see <u>http://www.english-</u> heritage.org.uk/professional/protection/national-heritage-protection-plan/

Where appropriate note any similar nationwide projects using ADS, internet search engines, ALSF website, HEEP website, OASIS, NMR excavation index.

All staff on site must understand the project aims and methodologies.

Methods statement

3 evaluation trenches are needed to inform the Planning Authority of the character, nature, date, depth, degree of survival of archaeological deposits on this site. The excavation must be carried out by a suitably qualified and experienced archaeological organisation. The work will record and environmentally sample any archaeological deposits of importance found on the plot. The purpose of this brief is to obtain tenders for this work. The report must be the definitive record for deposition in the Tyne and Wear HER, and it must contain recommendations for any further archaeological work needed on this site.

The commissioning client needs to be aware that the purpose of the preliminary evaluation is merely to ascertain if archaeological remains survive on this site and if they do, to determine their broad date, nature and function. Where archaeological remains are found in the preliminary trenches, and if these remains are at threat by the proposed development, further archaeological excavation and or a watching brief will be required before and during development work.

All staff employed by the Archaeological Contractor shall be professional field archaeologists with appropriate skills and experience to undertake work to the highest professional standards.

The work will be undertaken according to English Heritage Guidelines - Managing Archaeological Projects 2nd Edition ('MAP2') 1991 (<u>www.english-h.gov.uk/guidance/map2/index.htm</u>) and Management of Research Projects in the Historic Environment (MoRPHE) – The MoRPHE Project Managers' Guide, Project Planning Notes and Technical Guides 2006 (<u>www.english-heritage.org.uk/publications</u>).

The work will be undertaken according to MoRPHE Project Planning Notes 2006 - PPN3 – Archaeological Excavation and PPN6 – Development of Procedural standards and guidelines for the historic environment.

All work must be carried out in compliance with the codes of practice of the Institute of Field Archaeologists and must follow the IFA Standard and Guidance for Archaeological Field Evaluations, Excavation or Watching Briefs as appropriate. <u>www.archaeologists.net</u>

Notification

The County Archaeologist needs to know when archaeological fieldwork is taking place in Tyne and Wear so that he can inform the local planning authority and can visit the site to monitor the work in progress. The Archaeological Contractor <u>must</u> therefore inform the County Archaeologist of the start and end dates of the Evaluation. He <u>must</u> also keep the County Archaeologist informed as to progress on the site. The CA must be informed of the degree of archaeological survival and of any significant finds. The Client will give the County Archaeologist reasonable access to the development to undertake monitoring.

PROJECT INITIATION

PROJECT DESIGN

Because this is a detailed specification, the County Archaeologist does **not** require a Project Design from the appointed archaeologist. The appointed archaeologist is expected comply with the requirements of this specification.

HEALTH AND SAFETY AND RISK ASSESSMENT

A health and safety statement and risk assessment, identifying potential risks in a risk log (see template in appendix 2 of The MoRPHE Project Manager's Guide) and specifying suitable countermeasures and contingencies, is required to be submitted to the commissioning client.

The Client may wish to see copies of the Archaeological Contractor's Health and Safety Policies.

The Archaeological Contractor must maintain a Site Diary for the benefit of the Client, detailing the nature of work undertaken on a day by day basis, with full details of Site Staff present, duration of time on site, etc. and contact with third parties.

The Management of Research Projects in the Historic Environment (MoRPHE) – The MoRPHE Project Managers' Guide 2006 contains general guidance on Risk management (section 2.3.2, Appendix 2).

Risk assessments must be produced in line with legislative requirements (for example the Health and Safety at Work Act 1974, the Management of Health and Safety at Work Regulations 1999, the Control of Substances Hazardous to Health (COSHH) Regulations 2002 and the Personal Protective Equipment at Work Regulations 2002) and best practice e.g. as set out in the FAME (Federation of Archaeological Managers & Employers) formerly SCAUM (Standing Conference on Archaeological Unit Managers) Health and Safety Manual www.famearchaeology.co.uk www.scaum.org/uk

The Risk Assessment will identify what PPE (hard hats, glasses/goggles, steel toe cap and instep boots, gloves, high-viz clothing etc) is required.

Other potentially applicable legislation:

Working at Heights Regulations 2005, Manual Handling 1992

'Safe use of ladders and stepladders: An employers' guide' HSE Books 2005

Some archaeological work (such as those that last more than 30 days or involve more than 500 person days) may be deemed notifiable projects under C.D.M Regulations 1994 (amended 2007). Where C.D.M Regs apply, the HSE must be notified. A CDM Co-ordinator and principal contractor must be appointed. The CDM-C will produce a Health and Safety file. The PC will prepare the Construction Phase Plan. The HSE website includes a Power Point presentation on CDM training.

Detailed information on hazards and how to carry out a risk assessment can be obtained from the Health and Safety Executive (<u>www.hse.gov.uk</u>) and the local authority health and safety department.

Specific guidance for land contamination and archaeology can be obtained from the Institute for Archaeologists (<u>www.archaeologists.net</u>), the Construction Industry Research and Information Association (<u>www.contaminated-land.org</u>) and the Association of Geotechnical and Geoenvironmental Specialists (<u>www.ags.org.uk</u>).

See also Environment Agency, 2005 "Guidance on Assessing the Risk Posed by Land Contamination and its Remediation on Archaeological Resource Management".

The Archaeological Contractor must be able to provide written proof that the necessary levels of Insurance Cover are in place.

The Archaeological Contractor must detail measures taken to ensure the safe conduct of excavations, and must consult with the client's structural engineers concerning working in close proximity to the foundations of the surrounding buildings.

Excavation trenches should:

- Be protected from vehicles and guarded off for pedestrians
- not have steep sides or must be shored
- have good access and egress

The archaeologists must not work near overhead power lines.

Underground services can be easily damaged during excavation work. If proper precautions are not taken, it is all too easy for workers to hit these services resulting in a risk of

- heat, flame and molten metal from electric cables
- escaping gas from gas pipes
- flooding of the excavation when a water pipe is damaged
- interruption of services

Excavation work in the public highway, kerbside or pavement can only be undertaken by those with a Street Works certificate of competence. Before the excavation takes place the person supervising the digging must have been given service plans and be trained in how to read them. All persons involved in the excavation must know about safe digging practice and emergency procedures. A locator must be used to trace the line of any pipe or cable or to confirm that there are no pipes or cables in the way. The ground will be marked accordingly. There must be an emergency plan to deal with damage to cables and pipes.

PROJECT EXECUTION

1) Archaeological evaluation

The suggested location of trenches are shown on the accompanying plan. The dimensions of the trenches are

TR1	2m x 20m
TR2	2m x 20m
TR3	2m x 15m

in plan **at base**.

Trench locations can be adjusted to avoid services or for practical or safety purposes.

The appointed archaeologist **must** be able to get into the trench to plan, photograph and sample excavate any archaeological features which are found. In order to do this safely, where archaeological features lie over 1.2m below present ground level, trenches **must** be widened (if feasible) to allow safe access, otherwise shoring will be required.

Trench positions should be accurately surveyed prior to excavation and tied in to the national grid.

The trenches should be excavated to the depth of natural subsoil if this can be reached safely.

Trenches must avoid known services.

Trenches must stay a safe distance away from pylons and overhead power lines.

The commissioning client will advise of any ecological or biodiversity issues which need to be taken into consideration.

The commissioning client will advise of any protected trees which must be avoided by the evaluation. Damage to trees covered by a Tree Protection Order carries a substantial fine.

Trenches must avoid any **Japanese Knotweed** (it is the commissioning client's responsibility to advise their archaeologist if Japanese Knotweed is present on the site). Japanese knotweed was introduced into Britain in the 19th century as an ornamental plant. Over time it has become widespread in a range of habitats, including roadsides, riverbanks and derelict buildings. It out-competes native plants and animals and is now classed as an invasive species. It spreads through its crown, rhizome (underground stem) and stem segments, rather than its seeds. The weed can grow a metre in a month and can grow through concrete and tarmac, damaging buildings and roads. Studies have shown that a 1cm section of rhizome can produce a new plant in 10 days. Rhizome segments can remain dormant in soil for twenty years before producing new plants.

In the UK there are two main pieces of legislation that cover Japanese Knotweed. These are:

Wildlife and Countryside Act 1981

Listed under Schedule 9, Section 14 of the Act, it is an offence to plant or otherwise cause the species to grow in the wild. This lists over 30 plants including Japanese knotweed, giant hogweed and parrot's feather. An offence under the Wildlife and Countryside Act can result in a criminal prosecution.

Environmental Protection Act 1990

Japanese Knotweed is classed as 'controlled waste' and as such must be disposed of safely at a licensed landfill site according to the Environmental Protection Act (Duty of Care) Regulations 1991. Soil containing rhizome material can be regarded as contaminated and, if taken off a site, must be disposed of at a suitably licensed landfill site and buried to a depth of at least 5 m. An infringement under the Environmental Protection Act can result in enforcement action being taken by the Environment Agency which can result in an unlimited fine. You can also be held liable for costs incurred from the spread of Knotweed into adjacent properties and for the disposal of infested soil off site during development which later leads to the spread of Knotweed onto another site.

See also the Environment Agency 'Japanese Knotweed Code of Practice'.

It's down to landowners to control these plants, but they don't have to remove them. However, causing the plants to spread by removing or disposing of them incorrectly [i.e. disturbing them through archaeological excavation] would be illegal {info taken from www.environment-agency.gov.uk and www.devon.gov.uk}.

Tasks

Hand excavation, recording and environmental sampling (as stipulated below) of deposits down to the depth specified above.

Any modern overburden or levelling material can be machined-off using a wide toothless ditching bucket under strict archaeological supervision and the remaining deposits are to be excavated by hand.

All faces of the trench that require examination or recording will be cleaned.

Excavation is to be carried out with a view to avoid damage to any archaeological features which appear to worthy of preservation in-situ.

Excavation is to be carried out by single context planning and recorded on *pro forma* context sheets. Features over 0.5 m in diameter can be half sectioned.

Environmental sampling (and where relevant scientific dating) are compulsory parts of the evaluation exercise. All tenders will give a price for the assessment, full analysis, report production and publication per environmental and scientific dating sample as a contingency.

Samples will be taken of bricks from any brick-built structures. The dimensions of the bricks and the type of bonding must be recorded.

Scientific investigations should be undertaken in a manner consistent with "The Management of Archaeological Projects", English Heritage 1991 and with "Archaeological Science at PPG16 Interventions: Best Practice for Curators and Commissioning Archaeologists", English Heritage, 2003. Advice on the sampling strategy for environmental samples and samples for scientific dating etc. must be sought from Jacqui Huntley, English Heritage Regional Advisor for Archaeological Science (jacqui.huntley@english-heritage.org.uk or 07713 400387) before the evaluation begins. See Appendix 1 for more information.

See Appendix 2 for guidance on procedures relating to human remains.

See Appendix 4 for guidance on Treasure Act procedures.

The spoil can be kept close-by and rapidly backfilled into the trenches at the conclusion of this work.

Recording

A full written, drawn (accurate scale plans, elevations and section drawings) and photographic record (of all contexts in **either** black and white print and colour transparency or with a digital camera) will be made. All images must include a clearly visible graduated metric scale.

All photographs forming part of the record should be in sharp focus, with an appropriate depth of field. They should be adequately exposed in good natural light or, where necessary, sufficiently well-lit by artificial means.

Use of digital cameras

Use a camera of 5 megapixels or more.

For maximum flexibility digital Single Lens Reflex cameras offer the best solution for power users. 6 megapixels should be considered a minimum requirement.

When photographing with digital SLR cameras, there is often a magnifying effect due to smaller sensor sizes.

If the JPEG (Joint Photographic Experts Group) setting is used, set the camera for the largest image size with least compression. The JPEG format discards information in order to reduce file size. If the image is later manipulated, the quality will degrade each time you save the file.

For maximum quality, the preferred option is that the RAW (camera-specific) setting is used. This allows all the information that the camera is capable of producing to be saved. Because all of the camera data is preserved, post processing can include colour temperature, contrast and exposure compensation adjustments at the time of conversion to TIFF (Tagged Interchangeable File Format), thereby retaining maximum photographic guality.

The RAW images must be converted to TIFF before they are deposited with the HER and TWAS because special software from the camera manufacturer is needed to open RAW files.

Uncompressed formats such as TIFF are preferred by most archives that accept digital data.

Post photography processing:

The submitted digital images must be 'finished', ready to be archived.

Post photography processing workflow for RAW images:

- Download images 1
- Edit out unwanted shots & rotate
- Batch re-number
- Batch caption
- Batch convert to TIFF
- 234567 Edit in Photoshop or similar
- Save ready to burn to CD
- 8 Burn to CD
- 9 Dispatch

Batch caption – the image files should be named to reflect their content, preferably incorporating the site or building name. Consistent file naming strategies should be used. It is good practice not to use spaces, commas or full stops. For advice, go to <u>http://ads.ahds.ac.uk/project/userinfo/deposit.html#filenaming</u>. In order to find images at a future date and for copyright the site or building name, photographer's name and/or archaeological unit etc must be embedded in the picture file. The date can be appended from the EXIF data. Metadata recording this information must be supplied with the image files. A list of images, their content and their file names should be supplied with the image files on the CDs.

Batch conversion to TIFF – any white balance adjustments such as 'daylight' or 'shade' be required then this can be done as part of the conversion process. Ensure that any sharpening settings are set to zero.

Edit in 'Imaging' software such as Photoshop – tonal adjustments (colour, contrast) can be made. Rotate images where necessary, crop them to take out borders, clean the images to remove post-capture irregularities and dust. Check for sensor dust at 100% across the whole image.

Save ready for deposit – convert to TIFF and save. Retain the best colour information possible – at least 24 bit.

If the JPEG setting has been used and the image has been manipulated in any way it should be saved as a TIFF to prevent further image degradation through JPEGing.

Burn to CD – the NMR recommends using Gold CDs. Use an archive quality disk such as MaM-E gold. Gold disks have a lower burn speed than consumer disks.

Disks should be written to the 'Single Session ISO9660 – Joliet Extensions' standard and not UDF/Direct CD. This ensures maximum compatibility with current and future systems.

Images should be placed in the root directory not in a folder.

The CD will be placed in a plastic case which is labelled with the site name, year and name of archaeological contractor.

For more guidance on digital photography:

Digital Imaging Guidelines by Ian Leonard, Digital Archive Officer, English Heritage 22 September 2005)

Understanding Historic Buildings – A guide to good recording practice, English Heritage, 2006

Duncan H. Brown, 2007, "Archaeological Archives – A guide to best practice in creation, compilation, transfer and curation"

IFA, Guidance on the use and preservation of digital photographs

FISH (Forum on Information Standards in Heritage), September 2006 v.1, A Six Step Guide to Digital Preservation, FISH Fact Sheet No. 1

Visual Arts Data Service and Technical Advisory Service for Images, Creating Digital Resources for the Visual Arts: Standards and Good Practice <u>http://vads.ahds.ac.uk/guides/creating_guide/contents.html</u>

AHDS Guides to Good Practice – Julian Richards and Damian Robinson (eds), Digital Archives from Excavation and Fieldwork: Guide to Good Practice, Second Edition

Printing the images:

In view of the currently unproven archival performance of digital data it is always desirable to create hard copies of images on paper of archival quality.

A selection of the images will be printed in the finished report for the HER, two images per A4 page.

When preparing files for printing, a resolution of 300dpi at the required output size is appropriate.

A **full set** of images will also be professionally printed in black and white and colour for submission as part of the site archive.

Use processing companies that print photos to high specifications. Commercial, automatic processing techniques do not meet archival standards and must not be used.

All prints for the archive must be marked on the back with the project identifier (e.g. site code) and image number.

Store prints in acid-free paper enclosures or polyester sleeves (labelled with image number)

Include an index of all photographs, in the form of running lists of image numbers

The index should record the image number, title and subject, date the picture was taken and who took it

The print sleeves and index will either be bound into the paper report or put in an A4 ringbinder which is labelled with the site name, year and archaeological unit on its spine.

Plans and drawings

The finished report must include a plan and section of each trench (even where no archaeological remains are recorded) plus plans and sections through excavated archaeological features.

The plans will include at least two site grid points and will show section line end points.

The plans will depict building material (i.e. brick and stone) where a complex of structures has been found.

Where there is a complex of interlocking multi-phased structures, a phasing plan will also be included.

There will be elevation drawings of any standing structures such as walls.

Pro-forma context sheets will be used.

All deposits and the base of the trench will be levelled. Levels will be expressed as metres above Ordnance Datum.

Stratigraphy shall be recorded even when no archaeological features have been recognised.

A 'Harris' matrix will be compiled where stratified deposits are recorded.

2) Post-excavation and report production

Finds Processing and Storage

The Archaeological Contractor will process and catalogue the finds in accordance with Museum and Galleries Commissions Guidelines (1992) and the UKIC Conservation Guidelines, and arrange for the long term disposal of the objects on behalf of the Client. A catalogue of finds and a record of discard policies, will be lodged with the finds for ease of curation.

Finds shall be recorded and processed in accordance with the IFA Guidelines for Finds Work

Finds will be assessed by an experienced finds specialist.

See 'Investigative Conservation. Guidelines on how the detailed examination of artefacts from archaeological sites can shed light on their manufacture and use', English Heritage, 2008.

Human and animal bone assemblages should be assessed by a recognised specialist (see Appendices 2 and 3 for more information).

Industrial slag and metal working debris will be assessed by a specialist.

Assessment should include x-radiography of all iron objects (after initial screening to exclude recent debris) and a selection of non-ferrous artefacts (including all coins). Refer to "Guidelines on the x-radiography of archaeological metalwork, English Heritage, 2006.

Brick dimensions will be measured and a note made of the bonding material.

If necessary, pottery sherds and bricks should be recommended for Thermoluminescence dating. See 'Luminensence Dating: guidelines on using luminescence dating in archaeology', English Heritage, 2008.

Inductively-coupled plasma spectroscopy (ICPS) and thin sectioning can be used to establish the chemical composition of clay fabric (pottery), which helps to locate production sites and identify the products of known sites.

Finds processing, storage and conservation methods must be broadly in line with current practice, as exemplified by the IFA "Standard and guidance for the collection, documentation, conservation and research of archaeological materials",

2001. Finds should be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication "First Aid for Finds" (Watkinson and Neal 1998). Proposals for ultimate storage of finds should follow the UKIC publication "Guidelines for the Preparation of Excavation Archives for Long-term Storage" (Walker 1990). Details of methodologies may be requested from the Archaeological Contractor.

Other useful guidance – "A Strategy for the Care and Investigation of Finds", English Heritage, 2003, "Finds and Conservation Training Package", English Heritage, 2003.

All objects must be stored in appropriate materials and conditions to ensure minimal deterioration. Advice can be sought from Jacqui Huntley of English Heritage (07713 400387) where necessary.

PRODUCTS

The report

1. The Archaeological Contractor must produce an interim report of 200 words minimum, **two weeks after the completion of the field-work**, for the Client and the Planning Authority, with a copy for information to the County Archaeologist. This will contain the recommendations for any further work needed on site.

2. The production of Site Archives and Finds Analysis will be undertaken according to English Heritage Guidelines - Managing Archaeological Projects 2nd Edition ('MAP2') 1991 and Management of Research Projects in the Historic Environment (MoRPHE) 2006.

3. A full archive report or post-excavation assessment, with the following features should be produced **within six months of the completion of the field-work**. All drawn work should be to publication standard. The report must include:

- * Location plans of trenches and grid reference of site
- * Site narrative interpretative, structural and stratigraphic history of the site
- * Plans showing major features and deposit spreads, by phase, and section locations
- * Sections of the two main trench axes and through excavated features with levels
- * Elevation drawings of any walls etc. revealed during the excavation
- * Artefact reports full text, descriptions and illustrations of finds
- * Tables and matrices summarising feature and artefact sequences.
- * Archive descriptions of contexts, grouped by phase (not for publication)
- * Deposit sequence summary (for publication/deposition)
- * Colour photographs of trenches and of archaeological features and finds
- * Laboratory reports and summaries of dating and environmental data, with collection methodology.
- * A consideration of the results of the field-work within the wider research context (ref. NERRF).
- * Recommendations for further work on site, or further analysis of finds or environmental samples
- * Copy of this specification

- 4. One bound and collated copy of the report needs to be submitted:
 - for deposition in the County HER at the address on the first page.

Four digital copies (pdf of the report on CD) must be submitted:

- one for the commissioning client
- one for the planning authority (Newcastle City Council) this must be formally submitted by the developer to the planning department with the appropriate fee.
- one for deposition in the County HER at the address below. This CD will also include all of the digital images as TIFFs and the accompanying metadata.

PLEASE DO NOT ATTACH THE HER'S CD TO THE PAPER REPORT AS THEY ARE STORED SEPARATELY

The report and CD for the HER must be sent by the archaeological consultant or their client directly to the address below. If the report is sent via the planning department, every page of the report will be stamped with the planning application number which ruins the illustrations. The HER is also often sent a photocopy instead of a bound colour original which is unacceptable.

Publication

If significant archaeological features are found during the evaluation, the results may also warrant publication in a suitable archaeological journal. The tender should therefore include an estimated figure for the production of a short report of, for example 20 pages, in a journal such as Archaeologia Aeliana, the Arbeia Journal, Industrial Archaeology Review or Durham Archaeological Journal. This is merely to give the commissioning client an indication of potential costs.

Before preparing a paper for publication, the archaeological contractor must discuss the scope, length and suitable journal with the County Archaeologist.

Archive Preparation and Dissemination

The archive should be a record of every aspect of an archaeological project – the aims and methods, information and objects collected, results of analysis, research, interpretation and publication. It must be as complete as possible, including all relevant documents, records, data and objects {Brown, 2007, 1}.

The site archive (records and materials recovered) should be prepared in accordance with Managing Archaeological Projects, Second Edition, 5.4 and appendix 3 (HBMC 1991), MoRPHE Project Planning Notes 2006 PPN3 – Archaeological Excavation, "Archaeological documentary archives" IFA Paper No. 1, "Archaeological Archives – creation, preparation, transfer and curation"

Archaeological Archives Forum etc., Guidelines for the Preparation of Excavation Archives for Long Term Storage (UKIC 1990) and "Archaeological Archives – A guide to best practice in creation, compilation, transfer and curation" by Duncan H. Brown, Archaeological Archives Forum, July 2007.

Documentary Archive

The documentary archive comprises all records made during the archaeological project, including those in hard copy and digital form.

This should include written records, indexing, ordering, quantification and checking for consistency of all original context sheets, object records, bulk find records, sample records, skeleton records, photographic records (including negatives, prints, transparencies and x-radiographs), drawing records, drawings, level books, site note-books, spot-dating records and conservation records, publication drafts, published work, publication drawings and photographs etc.

A summary account of the context record, prepared by the supervising archaeologist, should be included.

All paper-based material must at all times be stored in conditions that minimise the risk of damage, deterioration, loss or theft.

Do not fold documents

Do not use self-adhesive labels or adhesive or tape of any kind

High quality paper (low-acid) and permanent writing materials must be used.

Original drawings on film must be made with a hard pencil, at least 4H.

Do not ink over original pencil drawings.

Use polyester based film for drawings (lasts longer than plastic).

Store documents in acid-free, dust-proof cardboard boxes

Store documents flat

All documents must be marked with the project identifier (e.g. site code) and/or the museum accession number.

All types of record must use a consistent terminology and format.

Use non-metal fastenings, and packaging and binding materials that ensure the longevity of documents.

Copies of reports and appropriate drafts, with associated illustrative material, must be submitted for inclusion with the archive.

Material Archive

The material archive comprises all objects (artefacts, building materials or environmental remains) and associated samples of contextual materials or objects.

All artefacts and ecofacts retained from the site must be packed in appropriate materials.

All finds must be cleaned as appropriate to ensure their long-term survival

All metal objects retained with the archive must be recorded by x-radiograph (except gold or lead alloys or lead alloys with a high lead content and objects too thick to be x-rayed effectively e.t.c.)

The archive should include all environmental remains recovered from samples or by hand, all vertebrae remains not used for destructive analysis, environmental remains extracted from specialist samples (such as pollen preparations in silicone oil).

All finds must be marked or labelled with the project and context identifiers and where relevant the small-finds number

Use tie-on rot-proof labels where necessary

Bulk finds of the same material type, from the same context, may be packed together in stable paper or polythene bags

Mark all bags on the outside with site and context identifiers and the material type and include a polyethylene label marked with the same information

Use permanent ink on bags and labels

Sensitive finds must be supported, where appropriate, on inert plastic foam or acid-free tissue paper. It is not advisable to wrap objects in tissue as the unwrapping could cause damage.

The archive will be placed in a suitable form in the appropriate museum (Great North Museum: Hancock).

Contact Keeper of Archaeology, Andrew Parkin at the Great North Museum (0191 222 6765).

A letter will be sent to the County Archaeology Officer within six months of the report having been submitted, confirming where the archive has been deposited.

Digital Archive

Copy of the report on CD as a pdf plus all of the digital images as TIFFs.

See MoRPHE Technical Guide 1 – Digital Archiving & Digital Dissemination 2006.

Archaeology Data Service

The digital archive including the image files can, if the appointed archaeologist and commissioning client choose to, be deposited with the ADS (The Archaeology

Data Service) which archives, disseminates and catalogues high quality digital resources of long-term interest to archaeologists. The ADS will evaluate datasets before accepting them to maintain rigorous standards (see the ADS Collections Policy). The ADS charge a fee for digital archiving of development-led projects. For this reason deposition of the images with the ADS is optional.

Archaeology Data Service Department of Archaeology University of York King's Manor York YO1 7EP 01904 433 954 W

Web: http://ads.ahds.ac.uk

SIGNPOSTING

OASIS

The Tyne and Wear County Archaeologist supports the Online Access to the Index of Archaeological Investigations (OASIS) project. This project aims to provide an online index/access to the large and growing body of archaeological grey literature, created as a result of developer-funded fieldwork.

The archaeological contractor is therefore required to register with OASIS and to complete the online OASIS form for their evaluation at <u>http://www.oasis.ac.uk/</u>. Please ensure that tenders for this work takes into account the time needed to complete the form.

Once the OASIS record has been completed and signed off by the HER and NMR the information will be incorporated into the English Heritage Excavation Index, hosted online by the Archaeology Data Service.

The ultimate aim of OASIS is for an online virtual library of grey literature to be built up, linked to the index. The unit therefore has the option of uploading their grey literature report as part of their OASIS record, as a Microsoft Word document, rich text format, pdf or html format. The grey literature report will only be mounted by the ADS if both the unit and the HER give their agreement. The grey literature report will be made available through a library catalogue facility.

Please ensure that you and your client understand this procedure. If you choose to upload your grey literature report please ensure that your client agrees to this in writing to the HER at the address below.

For general enquiries about the OASIS project aims and the use of the form please contact: Mark Barratt at the National Monuments Record (tel. 01793 414600 or <u>oasis@english-heritage.org.uk</u>). For enquiries of a technical nature please contact: Catherine Hardman at the Archaeology Data Service (tel. 01904 433954 or <u>oasis@ads.ahds.ac.uk</u>). Or contact the Tyne and Wear Archaeology Officer at the address below.

The tender

Tenders for the work should contain the following:-

- 1. Brief details of the staff employed and their relevant experience
- 2. Details of any sub-contractors employed
- 3. A quotation of cost, broken down into the following categories:-
 - Costs for the excavation, incl. sub-headings of staff costs on a person-day basis, transport, materials, and plant etc.
 - * Post-excavation costs, incl. storage materials
 - * Cost of Environmental analysis and scientific dating per sample
 - * Estimated cost for full publication of results in an archaeological journal
 - * Overheads
- 4. An indication of the required notification period (from agreement to start date) for the field-work; the duration of fieldwork and the expected date for completion of the post-excavation work (a maximum of 6 months after completion of the fieldwork)

Monitoring

The Archaeological Contractor will inform the County Archaeologist of the start and end dates of the excavation to enable the CA to monitor the work in progress.

Should important archaeological deposits be encountered, the County Archaeologist must be informed. If further archaeological evaluation is required on this site, then the archaeological contractor must submit a written scheme of investigation for approval by the CA before extending the size of the trenches.

APPENDICES

1 Environmental Sampling, Scientific Analysis and Scientific Dating

This is a compulsory part of the evaluation exercise.

Advice on the sampling strategy for environmental samples and samples for scientific dating etc. must be sought from Jacqui Huntley, English Heritage Advisor for Archaeological Science (07713 400387) **before** the evaluation begins. The sampling strategy should include a reasoned justification for selection of deposits for sampling.

Scientific investigations should be undertaken in a manner consistent with "The Management of Archaeological Projects", English Heritage 1991 and with "Archaeological Science at PPG16 Interventions: Best Practice for Curators and Commissioning Archaeologists", English Heritage, 2004.

See also 'Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post excavation', English Heritage, second edition 2011.

http://www.english-heritage.org.uk/publications/environmental-archaeology-2nd/

English Heritage guidance documents on archaeological science can be downloaded as pdf files from <u>www.helm.org.uk</u> or <u>www.English-Heritage.org.uk</u> > Learning and Resources > Publications > Free Publications.

See also the Environmental Archaeology Bibliography (EAB): <u>http://ads.ahds.ac.uk/catalogue/specColl/eab_eh_2004/</u>

and the NMR sciences thesaurus:

http://thesaurus.english-heritage.org.uk/thesaurus.asp?thes_no=560

There must be full specialist liaison throughout the project – this need not necessarily be face-to-face.

Sampling should be demonstrated to be both fit for purpose and in-line with the aims and objectives of the project.

The choice of material for assessment should be demonstrated as adequate to address the objectives.

Evaluations and assessment of scientific material should provide clear statements of their potential and significance in addition to descriptive records. These statements should relate to the original objectives but may also lead to new or modified objectives.

Post excavation analysis and interpretation requires sufficient information exchange and discussion to enable scientific specialists to interpret their material within the established intellectual framework.

Archaeological and scientific analyses should be integrated as fully as possible. It is not acceptable to leave the scientific analyses simply as appendices. Archive reports should include full data from all specialist materials. All reports, including any publications, must present sufficient primary data to support the conclusions drawn.

{From '10 principles of good practice in archaeological science' by English Heritage 2010}.

Types of sample

Flotation samples are used to recover charred and mineral-replaced plant remains, small bones, industrial residues etc. Such samples should be whole earth, 40-60 litres or 100% of small features. The flot mesh size should be 0.25-0.3mm. The residue sieve size should be 0.5-1mm. The flot and <2mm residue should be sorted under the microscope. >2mm residues can be sorted by eye.

Coarse-sieved samples are used to recover small bones (such as bird and fish), bone fragments, molluscs and small finds (beads, pottery, coins etc). Such samples should be 100 or more litres, wet or dry sieved, minimum mesh 2mm. Specialist advice is recommended.

Other types of sample are monoliths, specialist, cores and small spot. These are taken for specific reasons and need specialists.

Aims and objectives

Aims of environmental sampling – to determine the abundance/concentration of the material within the features and how well the material is preserved, to characterise the resource (the site) and each phase, to determine the significance of the material and its group value, what crop processing activities took place on the site? What does this tell us about the nature of the site? Is there any evidence for changes in the farming practice through time? How did people use this landscape? Can we place certain activities at certain locations within the site? Function and date of individual features such as pits, hearths etc. Are the charred assemblages the result of ritual deposition or rubbish? Is the charcoal the result of domestic or industrial fuel?

Deposits should be sampled for retrieval and assessment of the preservation conditions and potential for analysis of biological remains (English Heritage 2002). Flotation samples and samples taken for coarse-mesh sieving from dry deposits should be processed at the time of fieldwork wherever possible. Sieving recovers fish, amphibian, small bird and mammal bone, small parts of adult mammals and young infused bones which may be under-represented otherwise. However it is noted that sticky clay soils in this region make sieving difficult. Discuss the potential for sieving with Regional Advisor for Archaeological Science.

Environmental samples (bulk soil samples of 30-40 litres volume) will be collected by the excavator from suitable (i.e. uncontaminated) deposits. It is suggested that a large number of samples be collected during evaluation from which a selection of the most suitable (uncontaminated) can be processed. All tenders will give a price for the assessment, full analysis, report production and publication per sample.

The full 30-40 litre sample must be assessed by the laboratory, not just a small sub-sample.

The following information should be provided with the environmental samples to be processed – brief account of nature and history of the site, aims and objectives of the project, summary of archaeological results, context types and stratigraphic relationships, phase and dating information, sampling and processing methods, sample locations, preservation conditions, residuality/contamination etc.

Laboratory processing of samples shall only be undertaken if deposits are found to be reasonably well dated, or linked to recognisable features and from contexts the derivation of which can be understood with a degree of confidence.

A range of features, and all phases of activity, need to be sampled for charred plant remains and charcoal. Aceramic features should not be avoided as the plant remains from these features may help to date them. Deep features should be sampled in spits to pick up changes over time. Part or all of each of the contexts should be processed. In general samples should be processed in their entirety. All flots should be scanned, and some of the residues.

Scientific Dating

Deposits will be assessed for their potential for radiocarbon, archaeomagnetic and Optically Stimulated Luminescence dating.

See 'Archaeomagnetic Dating: Guidelines on producing and interpreting archaeomagnetic dates', English Heritage, 2006 and

'Luminescence Dating: guidelines on using luminescence dating in archaeology', English Heritage, 2008.

Timbers will be assessed for their potential for dendrochronology dating. Sampling should follow procedures in "Dendrochronology: guidelines on producing and interpreting dendrochronological dates", Hillam, 1998.

All tenders will quote the price of these techniques per sample.

For large excavations, particularly of prehistoric sites, a specialist scientific dating consultant must be part of the post-excavation assessment team. They will ensure that money set aside for dating is well spent, that the most appropriate soil samples are submitted for dating, that the right number of samples are submitted for dating. The expert will explain what to date and why. Don't send off samples for dating just for sake of it. The English Heritage Scientific Dating team (contact Pete Marshall) can provide contact details for scientific dating experts.

Once radiocarbon date results come back from the lab, avoid eyeballing your C14 dates. Modelling gives better date estimates.

AMS can now be used to date cremated bone.

Pollen

Pollen samples can be taken from features such as lakes, ponds, palaeochannels, estuaries, saltmarshes, mires, alluvium and colluvium, and from waterlogged layers in wells, ditches and latrines etc. Substances such as honey, beer or food residues can be detected in vessels. Activities such as threshing, crop processing and the retting of flax can be identified. When taken on site, pollen samples should overlap. Your regional science advisor can advise on the type of corer or auger which would be most appropriate for your site. Samples need to be wrapped in clingfilm and kept dark and cool. Make a description of the sediments in which the pollen was found, and send this with the sample to be assessed.

Forams and diatoms

Coastal or estuary sites (even those which are now well drained) are suitable for sampling for foraminifera. Diatoms can also be found on marine sites, but also in urban settings (sewers, wells, drains, ditches etc). They only survive in waterlogged conditions. These aquatic microfossils are used as proxy indicators of the former aquatic ecological conditions on site, changes in sea levels and temperature, salinity, PH and pollution. Forams are taken from cores, monolith tins or bulk samples. Diatoms are cut from monolith tins or cores or taken as spot samples.

Insects

Insects, which are useful as palaeoenvironmental indicators, survive best in waterlogged deposits such as palaeochannels and wells. They can provide information on climate change and landscape reconstruction as some species are adapted to particular temperatures, habitats or even particular trees. Certain insects can indicate the function of a feature or building (eg. Weevils, which were introduced by the Romans, often indicate granary sites, parasites will indicate the presence of particular animals such as sheep or horse, latrine flies survive in the mineral deposits in latrines, or in the daub of medieval buildings etc). Samples need to be sealed (eg. in a plastic box).

Industrial Activity

Where there is evidence for industrial activity, macroscopic technological residues should be collected by hand. Separate samples should be collected for microslags (hammer-scale and spherical droplets). Guidance should be sought from the English Heritage Regional Science Adviser on the sampling strategy for metalworking features and advice on cleaning and packaging. Specialist on-site advice must be sought on identification of metalworking features. Slag and metal working debris must be assessed by a specialist. Scientific analysis (such as x-ray fluorescence, chemical analysis, metallography or scanning electron microscope) of slag can provide information on the melting temperature, chemical composition (is it iron, zinc, copper etc), microstructure (the type and shape of the crystals), physical properties (the hardness or viscosity), isotopic composition (strontium_87 or strontium_88 etc) and mineralogical composition.

See "Archaeomagnetic dating", English Heritage, 2006

"Guidelines on the X-radiography of archaeological metalwork", English Heritage, 2006.

Historical Metallurgy Society, 2008, "Metals and metalworking: a research framework for archaeometallurgy".

Centre for Archaeology Guidelines on 'Archaeometallurgy' 2001.

'Science for Historic Industries: Guidelines for the investigation of 17th to 19th century industries', English Heritage, 2006.

Buried soils and sediments

Buried soils and sediment sequences should be inspected and recorded on site by a recognised geoarchaeologist. Procedures and techniques in the English Heritage document "Environmental Archaeology", 2002 and "Geoarchaeology", 2004 should be followed.

See also 'Geoarchaeology. Using earth sciences to understand the archaeological record', English Heritage, 2007.

Wood

Sampling strategies for wooden structures should follow the methodologies presented in "Waterlogged wood. Guidelines on the recording, sampling, conservation and curation of waterlogged wood" R. Brunning, 1996. If timbers are likely to be present on your site, contact a wood specialist beforehand. Pre-excavation planning – determine questions to ask, agree on a sampling strategy, allocate reasonable time and budget. Soil samples should be taken of the sediments surrounding the timber. Keep the timbers wet! Record them asap onsite – plan, photograph, record the size and orientation of the wood (radial, tangential,transverse), any toolmarks, joints, presence of bark, insect damage, recent breaks, and if another piece of wood was on top of or below the piece sampled. Both vertical and horizontal positioning of wattling must be recorded. Wood samples can provide information on woodland management such as medieval coppicing, type of taxa (native or foreign), conversion technology (how the wood was turned into planks), building techniques and type of tools used.

Suitable samples should be submitted for dendrochronological dating. See English Heritage guidelines, 2004, "Dendrochronology".

Leather and organic materials

Waterlogged organic materials should be dealt with following recommendations in "Waterlogged Organic Artefacts – Guidelines on their Recovery, Analysis and Conservation", English Heritage, 2012 and "Guidelines for the care of waterlogged archaeological leather", English Heritage and Archaeological Leather Group 1995.

Glass

As glass-making furnaces are above ground structures, they rarely survive. However sample residues can produce glass fragments which define glass working even though no traces of furnaces survive.

Excavations at Whitby Abbey recovered glassworking waste from preliminary sampling. Targeted bulk sampling in subsequent years recovered more evidence for glass working. Raw glass, twisted rods of glass and a possible glass inlay for an illustrated book were found. Similar glass rods were found at St. Gregory's Minster at Kirkdale, North Yorkshire.

Analysis can find out where glass was imported from (a lot of Roman glass came from Alexandria).

Analysis of the composition of glass can show varying additives and salt composition. At Whitby Abbey the varying salt composition in glass throughout the Early Medieval period reflected climate change.

Is the glass made from recycled glass waste or raw materials?

Is there evidence of glass blowing?

English Heritage has guidance forthcoming in 2010.

2 Animal Bone

Animal bone can explore themes such as hunting and fowling, fishing, plant use, trade network, seasonality, diet, butchery, animal husbandry, food procurement, age structures, farrowing areas, species ratios, local environment.

Domestic animal bone was used in prehistoric and Roman cremation rituals.

Post medieval cattle bones – small cow bones invariably represent animals which produced high quality buttermilk for cheese. Big 'improved' cattle with large bones were produced for large quantities of meat and poorer quality milk. Large and small cattle bones are often found together on post medieval sites, usually with less of the small bones.

Animal bone assemblages should be assessed by a recognised specialist.

The specialist will need to know a brief account of the nature and history of the site, an account of the purpose, methods (details of sampling) for recovery of animal bones, and the main aims and results of the excavation, details of any specific questions that the excavator wants the animal bone specialist to consider, information about other relevant finds from the excavation (e.g. bone tools, fishing equipment, weaving equipment), specific information about each context that has produced significant quantities of animal bone (recovery method, phase, context type, position in relation to major structures, contamination by more recent material, some indication of the amount of bone (by weight or by container size). See "Ancient Monuments Laboratory Advisory Note, "Assessment of animal bone collections from excavations", Sebastian Payne, 1991and "The Assessment of a collection of animal bones", S. Davis, n.d., Ancient Monuments Laboratory.

Fish bone

Because fish bones are so small, particularly freshwater and estuarine species, they are often only recovered in large bulk samples. Samples must always be sieved.

Rescue excavations carried out in the 1970s at the Iron Age hillfort of Broxmouth in East Lothian produced an assemblage of fish bone. Recent analysis of this material has proved the presence of large specimens of ling and other species which suggests that the Broxmouth population carried out deep-sea fishing. It has previously been suggested that Iron Age fishing would only have been undertaken by lines from the shore. It has also been suggested that fish was not consumed in Iron Age Britain due to religious or cosmological reasons {Hannah Russ, Ian Armit, Jo McKenzie, Andrew Jones, 2012, Deep-sea fishing in the Iron Age? New evidence from Broxmouth hillfort, South-east Scotland in Environmental Archaeology, Vol 17, Number 2, pp 177-184).

Roman agenda – did the Romans eat fish? Were they sourced locally or imported? Use of fish as a sauce (garum).

Excavations at Bridge Street, Chester showed that in the Roman period fish was eaten and was both locally sourced and imported (mullet and Spanish mackerel). Medieval and post medieval agenda – evidence for the deep sea fishing 'revolution', size-biased collections, replacement or supplement of freshwater and estuarine fish in the diet by deep sea fish. There was some herring exploitation in the early medieval period. Christian fasting from around 970 allowed fish to be eaten on Fridays which led to a huge demand for fish. There was an increase in marine fishing, fish trade and fish consumption (cod, haddock, ling, herring etc) around 1000 AD. Middens provide evidence of commercial fishing. There was a decline in freshwater fish (cyprinid or carp, salmon, smelt, eel, pike) from the eleventh century.

Smoking fish is a recent practice. They were previously air dried and salted.

Newcastle was a major port. Samples should be sieved to retrieve fish and bird bones along with small parts of other animal skeletons and young infused bones.

A crane bone was recovered from excavations at Tuthill Stairs, Newcastle – a rare find.

Herring bones are so small that they can only be retrieved by 2mm sieving.

Clay soils are difficult to sieve, hot water can help.

Acidic soils mean poor preservation of bone.

See English Heritage 2002, "Environmental Archaeology – a guide to the theory and practice of methods from sampling and recovery to post excavation", Centre of Archaeology Guideline 1.

Isotope analysis can determine where the fish were coming from – North Sea, Scandinavia, Newfoundland, Iceland etc.

There is an excellent reference collection of fish bone at York.

Fish bones should be archived to museums for future dating and isotope analysis where this is not undertaken as part of the post-excavation process.

www.fishlab.org

3 Human Remains

Human remains must be treated with care, dignity and respect.

Excavators must comply with the relevant legislation (essentially the Burial Act 1857) and local environmental health concerns. If found, human remains must be left in-situ, covered and protected. The archaeological contractor will be responsible for informing the police, coroner, local Environmental Health department and the County Archaeologist. If it is agreed that removal of the remains is essential, the archaeological contractor will apply for a licence from the Home Office and their regulations must be complied with.

The excavation area must be shielded from public view with screens.

The excavation of human remains is a delicate and time consuming operation. The process can take one or two days per skeleton. If the skeleton cannot be excavated all in one day cover it with plastic sheeting overnight to prevent it from

drying out. The remains should be excavated as completely as possible to give the bioarchaeologist the maximum amount of data.

A bioarchaeologist should be employed for any burial excavation from the start of the project.

A basic diagram of a skeleton should be available on site for staff to consult (such as that in Abrahams et al, 2008, McMinn's the human skeleton).

Once the top of a skeleton is reached, excavation will be undertaken using delicate tools such as paintbrushes, teaspoons, dental equipment and plasterers' leaves.

Recover all teeth, hand and foot bones.

Excavate the pubic symphysis of the pelvis with care as it is needed for age estimation of adults.

The ends of the ribs that meet the sternum are useful for age estimation of adults.

There will be a possibility that gall, bladder and kidney stones may survive. Sesamoid bones may be present in the hands and feet, calcified cartilages in the neck, on the ribs and on the hyoid bone in the neck.

Foetal bones may be present in the abdominal area of female skeletons.

The bones should be shaded from strong sunlight so they do not dry out and crack.

Bones should be drawn at 1:10 using a planning frame. Manual and digital photographs should be taken with a scale and a magnetic north arrow clearly visible. 3D recording using an EDM may be undertaken.

Site inspection by a recognised osteologist is desirable for isolated burials and essential for cemeteries. The remains will be recorded in-situ and subsequently lifted, washed in water (without additives). They will be marked and packed to standards compatible with "Excavation and post-excavation treatment of cremated and inhumed human remains", McKinley and Roberts, 1993. After excavation, the remains will be subject to specialist assessment.

Analysis of the osteological material should take place according to published guidelines "Human Remains from Archaeological Sites, Guidelines for producing assessment documents and analytical reports, English Heritage, 2002.

There is a new (2013) English Heritage guideline for the destructive sampling of archaeological human remains for scientific analysis 'Science and the Dead'.

Some of the potential benefits from the study of human skeletons – demography, growth profiles, patterns of disease, genetic relationships, activity patterns, diet, burial practices, human evolution. New scientific techniques available include DNA and stable isotope analyses.

Diseases which yield ancient DNA – leprosy, syphilis, tuberculosis, mycobacterium bovis (animal form of TB passed to humans when they shared a living space from Neolithic period onwards).

Radiocarbon dating can be used to chronologically phase burial grounds and track developments in demographic change and variations in the health of the population.

Cremation destroys the crown of the tooth so it cannot be dated (the closure of the cranium vault can be used in adults for dating instead). Cremation also fragments bone, distorts it due to lack of water, shrinks the bone, causes microstructural alteration and destroys organic components (so DNA analysis not possible).

AMS can now be used to date cremated bone.

Carbon and nitrogen stable isotope analysis can be used to study diet, usually to address broad questions about a wider population, rather than to study an individual. Most studies use 30 or more skeletons. Studies have included how social position influenced diet and how diet varied with geographic location.

Strontium and oxygen stable isotope analysis can be used to determine where individuals originated from.

The final placing of the remains after scientific study and analysis will be agreed beforehand.

Health & Safety associated with human remains:

Micro-organisms that might cause harm to humans are extremely unlikely to survive beyond about 100 Years.

More recent remains could be more hazardous to health as they may be in sealed lead coffins. Lead coffins should not be opened. They should be reburied intact without archaeological examination.

There is a danger of lead poisoning arising from high levels of lead in the atmosphere generated by lead coffins (see H. Needleman, 2004, Lead poisoning in Annual Review of Medicine, 55, pp. 209-22).

The possible risks of contracting disease from excavated human remains are highly negligible but could include the virus smallpox, tetanus and anthrax spores, the bacterial infection leptospirosis and the fungal disease mycoses (a problem in dry dusty soils and in crypts).

Excavators should be up-to-date with tetanus inoculations.

Anthrax can come from materials derived from animals – coffin pads, pillows or coffin packing.

Working with human remains may cause psychological stress (see J. Thompson, 1998, Bodies, minds and human remains, in M. Cox (ed) 1998, Grave concerns: Death and Burial in England 1700-1850, pp 197-201).

Normal hygiene measures should be undertaken – washing hands, wearing masks and gloves. Heavily soiled clothing should be burned at an HSE approved site.

Further guidance is available in:

"Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England", The Church of England and English Heritage, 2005 (www.english-heritage.org.uk/upload/pdf/16602_HumanRemains1.pdf)

"Church Archaeology: its care and management", Council for the Care of Churches, 1999

Charlotte A. Roberts, 2009, 'Human Remains in archaeology: a handbook', CBA Practical Handbooks in Archaeology No. 19 S Mays, 2010, The Archaeology of Human Bones, second edition

The Advisory Panel on the Archaeology of Christian burials in England can provide free well-informed advice with consideration of relevant religious, ethical, legal, archaeological and scientific issues. Panel's website: http://www.britarch.ac.uk/churches/humanremains/index.html or email the secretary simon.mays@english-heritage.org.uk

4 Treasure

All finders of gold and silver objects, and groups of coins from the same finds, over 300 years old, have a legal obligation to report such items under the Treasure Act 1996. Prehistoric base-metal assemblages found after 1st January 2003 also qualify as Treasure.

Summary Definition of Treasure (Portable Antiquities Scheme <u>www.finds.org.uk</u>)

The following finds are Treasure under the Act, if found after 24 September 1997 (or, in the case of category 2, if found after 1 January 2003):

- Any metallic object, other than a coin, provided that at least 10 per cent by weight of metal is precious metal (that is, gold or silver) and that it is at least 300 years old when found. If the object is of prehistoric date it will be Treasure provided any part of it is precious metal.
- Any group of two or more metallic objects of any composition of prehistoric date that come from the same find (see below)
- Two or more coins from the same find provided they are at least 300 years old when found and contain 10 per cent gold or silver (if the coins contain less than 10 per cent of gold or silver there must be at least ten of them). Only the following groups of coins will normally be regarded as coming from the same find: Hoards that have been deliberately hidden; Smaller groups of coins, such as the contents of purses, that may been dropped or lost; Votive or ritual deposits.
- Any object, whatever it is made of, that is found in the same place as, or had previously been together with, another object that is Treasure.

 single precious metal coins that have been modified into objects – that is, altered in some way as to make it likely that they were taken out of circulation - can, if older than 300 years old, qualify as Treasure. This is usually seen in the form of a conversion of the coin into a brooch or pendant, or some other form of jewellery or dress accessory, evidence of which can include the addition of a suspension loop to the top, a pin (or the remains of one) at the back, or gilding. Additionally, piercings can be present.

Any object that would previously have been treasure trove, but does not fall within the specific categories given above. Only objects that are less than 300 years old, that are made substantially of gold or silver, that have been deliberately hidden with the intention of recovery and whose owners or heirs are unknown will come into this category.

Note: An object or coin is part of the 'same find' as another object or coin if it is found in the same place as, or had previously been together with, the other object. Finds may have become scattered since they were originally deposited in the ground.

If anything is found which could be Treasure, under the Treasure Act 1996, it is a legal requirement to report it to the local coroner within 14 days of discovery. The Archaeological Contractor must comply with the procedures set out in The Treasure Act 1996. Any treasure must be reported to the coroner and to The Portable Antiquities Scheme Finds Liaison Officer, Rob Collins and Lauren Proctor (0191 2225076 or <u>Robert.Collins@newcastle.ac.uk</u> or <u>Lauren.Proctor@newcastle.ac.uk</u>) who can provide guidance on the Treasure Act procedures.

If you need this information in another format or language, please contact Jennifer Morrison, Archaeology Officer.

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