Polar Technology, Eynsham Geotechnical Test Pits

Archaeological Watching Brief Report

oxfordarchaeology south

February 2017

Client: Polar Technology Management Group

Issue No: 1
OA Job No: 6601
NGR: SP 42762 08827

Archaeological Watching Brief

Client Name:	Polar Technology Management Group
Document Title:	Polar Technology, Eynsham. Geotechnical Test Pits
Document Type:	Archaeological Watching Brief Report
Issue/Version Number:	1
Grid Reference:	SP 42762 08827
Planning Reference:	16/02369/FUL
Invoice Code:	EYPOTEWB
OA Job Number:	6601
Site Code:	EYPOTE16
Receiving Museum:	Oxfordshire Museum Service
Museum Accession No.:	OXCMS:2016.225

Issue	Prepared by	Checked by	Edited by	Approved for issue by	Signature
1	John Boothroyd, Project Officer	Gerry Thacker, Project Manager	Cynthia Poole Project Manager	David Score, Head of feidlwork	

Document File Location:	\\10.0.10.86\Projects\e\Eynsham_Polar Technology_EV\Geotech watching brief\Report
Graphics File Location:	\\10.0.10.86\invoice codes a thru h\E_invoice codes\EYPOTEWB\PDFs
Illustrated by:	Conan Parsons and Charles Rousseaux

Janus House
Osney Mead
Oxford OX2 0ES
t: +44 (0) 1865 263800 e: info@oxfordarch.co.uk
f: +44 (0) 1865 793496 w: oxfordarchaeology.com

Archaeological Watching Brief Report

Written by John Boothroyd

and illustrated by Conan Parsons and Charles Rousseux

Table of Contents

List of Figures

List of Plates

Summary

Oxford Archaeology were commissioned by Polar Technology Management Group to monitor the excavation of geotechnical test pits in advance of the construction of proposed manufacturing buildings and an associated access route. The southern portion of the site falls within the boundary of a Scheduled Ancient Monument, and the current work fell beyond the scheduled area. A previous archaeological trial trench evaluation identified remains dating from the Neolithic to Anglo-Saxon periods, both within, and continuing beyond the limits of the scheduled area. Three test pits situated along the route of a former railway line were monitored in January 2016. The test pits identified no archaeological deposits and demonstrated that the underlying geology had been truncated by the construction of both a former railway line and the current 20th century buildings.

1 INTRODUCTION

1.1 Scope of work

1.1.1 Oxford Archaeology (OA) was commissioned by Polar Technology Limited to undertake a watching brief on five trial pits on the site of proposed manufacturing buildings with associated access routes (Fig. 1).

1.1.2 The work was undertaken as part of planning reference 16/02369/FUL. Discussions with Hugh Coddington, the OCC Archaeologist established the scope of work required. OA prepared a Written Scheme of Investigation (WSI) outlining how these requirements were to be met (OA 2016b). This document details the results of these works.

1.1.3 The trial pits were excavated beyond the boundary of the adjacent Scheduled Ancient Monument (Fig. 2)

1.1.4 All work was undertaken in accordance with local and national planning policies.

1.2 Location, geology and topography

1.2.1 The site is centred on NGR SP 42762 08827. The site lies to the south of the core of Eynsham, on relatively flat agricultural land. The site is bounded by the Chil Brook to the north, the B4449 to the south-east, and by agricultural land to the west (Fig. 1). A Scheduled Ancient Monument lies to the south and west of the area of the trial pits (Fig. 2).

1.2.2 The area of proposed development currently consists of agricultural land which was crossed by a former railway line, currently under hard standing (Fig. 1).

1.2.3 The Site is located on deposits forming part of the Oxford Clay Formation and West Walton Formation which are sedimentary mudstone formed approximately 156 to 165 million years ago in the Jurassic Period. These deposits are overlain by the Summertown-Radley sand and gravel member which formed up to 3 million years ago during the Quaternary Period (BGS website).

1.3 Archaeological and historical background

1.3.1 The archaeological and historical background to the site has been described in detail in a desk based assessment (DBA, OA 2015), and will not be reproduced here. This document should however be read in conjunction with the DBA.

1.3.2 An evaluation comprising a geophysical survey and trial trenching was carried out in early 2016 (OA 2016a) and covered areas both inside the Scheduled Ancient Monument (SAM) and to the north of the SAM.

Prehistoric period

1.3.3 There was the potential for archaeological remains that date to the prehistoric period to be present within the site. The south-western corner of the site falls within the area of a Scheduled Monument (Fig. 2) that includes nationally important archaeological remains dating to between the Neolithic and Iron Age, which include two prehistoric settlements, a Beaker cemetery and a Bronze Age barrow cemetery.

1.3.4 A limited number of finds have been recovered within the DBA study area (a 1km radius around the site) which date from the Palaeolithic and Mesolithic periods and suggest that there was a low possibility of material from these periods being identified. An early Neolithic pit was identified within the scheduled area during the earlier evaluation (OA 2016a).

Roman period

1.3.5 There was the potential for significant archaeological remains that date to the Roman period within the site. The south western corner of the site falls within the area of a Scheduled Monument that includes remains dating to the Roman period and includes the remains of a farmstead and associated field system.

Early medieval period

1.3.6 There was the potential for Anglo-Saxon archaeological remains to be identified within the site, and a possible sunken featured building of 5th-7th century date was uncovered during the evaluation (OA 2016a). Although there are large numbers of recorded assets from this period within the DBA Study Area the focus of this activity lies within the historic core of Eynsham *c* 450m north-east of the site.

Later medieval period

1.3.7 There was low potential for medieval archaeological remains other than those of an agricultural nature, to be identified within the site. It is likely that the core of activity in this period lay *c* 450m to the north-east in the historic core of Eynsham and the evidence from the (later) historic maps suggests that the site lay within the open agricultural fields of the village of Ducklington, which lies 8km to the south west. Traces of ridge and furrow agriculture were identified within the southern part of the site during the geophysical survey.

Post medieval and early modern periods

1.3.8 There was low potential for significant post medieval archaeological remains to be present within the site, with the exception of the former railway line.

2 Project Aims and Methodology

2.1 Aims

General

2.1.1 The general aims of the watching brief were:

(i) To determine the presence or absence of any archaeological remains which may survive. Should remains be found to ensure their preservation by record to the highest possible standard.

(ii) To determine or confirm the approximate extent of any surviving remains

(iii) To determine the date range of any surviving remains by artefactual or other means.

(iv) To determine the condition and state of preservation of any remains.

(v) To determine the degree of complexity of any surviving horizontal or vertical stratigraphy.

(vi) To assess the associations and implications of any remains encountered with reference to the historic landscape.

(vii) To determine the potential of the site to provide palaeoenvironmental and/or economic evidence, and the forms in which such evidence may survive.

(viii) To determine the implications of any remains with reference to economy, status, utility and social activity.

(ix) To determine or confirm the likely range, quality and quantity of the artifactual evidence present.

Specific aims and objectives

2.1.2 The specific aims and objectives of the watching brief were:

(x) To identify and record any archaeological remains or artefacts within the trial pits.

2.2 Methodology

2.2.1 Of the five test pits proposed only three were undertaken (Fig. 2). The test pits were hand excavated to a depth of between 0.35 and 0.9m below current ground level. All excavation work was monitored by an experienced archaeologist in dry conditions with good visibility of revealed deposits.

2.2.2 All fieldwork was undertaken in accordance with standard OA practices as outlined in the WSI (OA 2016b).

3 Results

3.1.1 The results of the evaluation are presented below, the full details of all test pits with dimensions and depths of all deposits form the content of Appendix A.

Test Pit 1

3.1.2 Test Pit 1 was excavated through a paved footpath to assess the foundations of a pre-existing building and as such was located on the south-west corner of the structure (Fig. 2). The test pit measured 1.7m by 1.1m and was excavated to a depth of 0.34m where the concrete footing was exposed directly underlying deposits associated with the foot path. At this point a 0.35 by 0.35m sondage was excavated along the western edge of the footing to expose its full depth.

3.1.3 Natural sands and gravels, 108, were exposed c. 0.5m below ground level. A band of compacted sand silt, 107, overlay the natural geology and was cut by the footing of the current building, 106 (Fig. 3; Plate 1). The nature of deposit 107 was uncertain, and it is

likely a bedding deposit associated with the construction of the building, however, the sterile nature of the layer may suggest an alluvial deposit, and similar deposits were noted adjacent to the Chil Brook during the evaluaton.

3.1.4 Layer 107 was overlain by the car park kerb stone 104, retained by concrete layer 105. The car park surface was constructed on a compact sand bedding deposit 103, sealed by a sand mortar layer 101 which supported the concrete slab surface 100 (Fig. 3; Plate 1).

3.1.5 Test pit 1 contained no archaeological deposits or remains.

Test Pit 2

3.1.6 Test Pit 2 was located in area of compacted gravel currently used as a car park (Fig. 2). The test pit was excavated to identify any potential contamination associated with the former railway line.

3.1.7 Natural sands and gravels, 202, were overlain by a layer of crushed concrete and brick in a silty sand matrix, 201. This deposits acted as a bedding layer for the compacted gravel car park surface, 200 (Fig. 3; Plate 2).

3.1.8 Test Pit 2 contained no archaeological deposits or remains.

Test pit 3

3.1.9 Located at the western limit of the proposed development in a grassed area, Test Pit 3 was excavated to a depth of 0.38m below ground level (Fig. 2). As with Test Pit 2, excavation was undertaken to identify the potential for contamination.

3.1.10 Natural geology was not observed within this test pit. A layer of crushed clinker in a silt sand matrix, 302, was the earliest deposit observed. This deposit was sealed by a layer of pale grey sand and gravel, 301, forming a levelling deposit. The present ground surface consisted of a thin band of turf, 300, sealing the deposits of made ground (Fig. 3; Plate 3).

3.1.11 Test Pit 3 contained no archaeological deposits or remains.

3.2 Finds

3.2.1 No finds were recovered during the watching brief.

3.3 Environmental remains

3.3.1 No deposits of environmental interest were encountered.

4 Discussion and Conclusions

4.1.1 It is evident from all test pits that the natural geology had been truncated through the construction of the railway and the present buildings, however, the extent of this truncation can not be fully understood within the limited scope of these works.

4.1.2 The archaeological evaluation undertaken in 2016 identified archaeological remains to both to the north and the south of the route of the former railway, suggesting this activity may once have continued beneath the footprint of the railway line. Archaeological deposits survived to significant depth within the trenches and therefore, despite no archaeological remains being identified during these works, the potential for archaeological deposits to survive below the level of truncation can not be ruled out.

APPENDIX A. ARCHAEOLOGICAL CONTEXT INVENTORY

Test Pit 1						
General description					**Orientation**	E-W
Trench devoid of archaeology. Consists of modern pavement and make up deposits overlying natural geology.					**Avg. depth (m)**	0.8
					Width (m)	1.1 max
					Length (m)	1.7 max
Contexts						
Context no	**Type**	**Width (m)**	**Depth (m)**	**Comment**	**Finds**	**Date**
100	Layer	-	0.05	Concrete paving slabs	-	-
102	Layer	-	0.0.4	Sand mortar bedding layer	-	-
103	Layer	-	0.25	Sand bedding layer	-	-
104	Layer	-	0.35	Kerb stone	-	-
105	Layer	-	0.25	Concrete bedding for kerb	-	-
106	Layer	-	0.53	Concrete foundation pad	-	-
107	Layer	-	0.22	Compacted silty sand	-	-
108	Layer	-	0.30	Natural sand and gravels	-	-

Test Pit 2						
General description					**Orientation**	-
Trench devoid of archaeology. Consists of compacted gravel surface overlying a leveling deposit and natural sand and gravels					**Avg. depth (m)**	0.51
					Width (m)	0.4
					Length (m)	0.4
Contexts						
Context no	**Type**	**Width (m)**	**Depth (m)**	**Comment**	**Finds**	**Date**
200	Layer	-	0.20	Compacted sand and gravel road surface	-	-
201	Layer	-	0.15	Crushed rubble and concrete, levelling deposits	-	-
202	Layer	-	>0.16	Natural sands and gravels	-	-

Test Pit 3		
General description	**Orientation**	-
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural deposit of silty sand.	**Avg. depth (m)**	0.38
	Width (m)	0.3

					Length (m)	0.3
Contexts						
Context no	**Type**	**Width (m)**	**Depth (m)**	**Comment**	**Finds**	**Date**
300	Layer	-	0.06	Topsoil	-	-
301	Layer	-	0.20	Sand and gravel levelling deposit	-	-
302	Layer	-	0.12	Clinker rich silty sand levelling or bedding deposit	-	-

Appendix B. Bibliography and References

BGS British Geological Survey website
http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html

OA 2015. Proposed Manufacturing Buildings, Polar Technology. Desk Based Assessment. Oxford Archaeology. Unpublished client document.

OA 2016a. Polar Technology, Eynsham, Oxfordshire. Archaeological Evaluation Report. Unpublished client document.

OA 2016b. Polar Technology, Eynsham, Geotechnical Test Pits, Written Scheme of Investigation of an Archaeological Watching Brief.

Appendix C. Summary of Site Details

Site name:	Polar Technology, Eynsham. Geotechnical Test Pits
Site code:	EYPOTE16
Grid reference:	Centred at NGR SP 42761 08768
Type of watching brief:	Geotechnical test pits
Date and duration of project:	1 day
Area of site:	c. 4.6ha
Summary of results:	Oxford Archaeology were commissioned by Polar Technology Management Group to monitor the excavation of geotechnical test pits in advance of the construction of proposed manufacturing buildings and an associated access route. The southern portion of the site falls within the boundary of a Scheduled Ancient Monument, and the current work fell beyond the scheduled area. A previous archaeological trial trench evaluation identified remains dating from the Neolithic to Anglo-Saxon periods, both within, and continuing beyond the limits of the scheduled area. Three test pits situated along the route of a former railway line were monitored in January 2016. The test pits identified no archaeological deposits and demonstrated that the underlying geology had been truncated by the construction of both a former railway line and the current 20th century buildings.
Location of archive:	Oxford Archaeology, Janus House, Osney Mead, Oxford, Ox20ES.

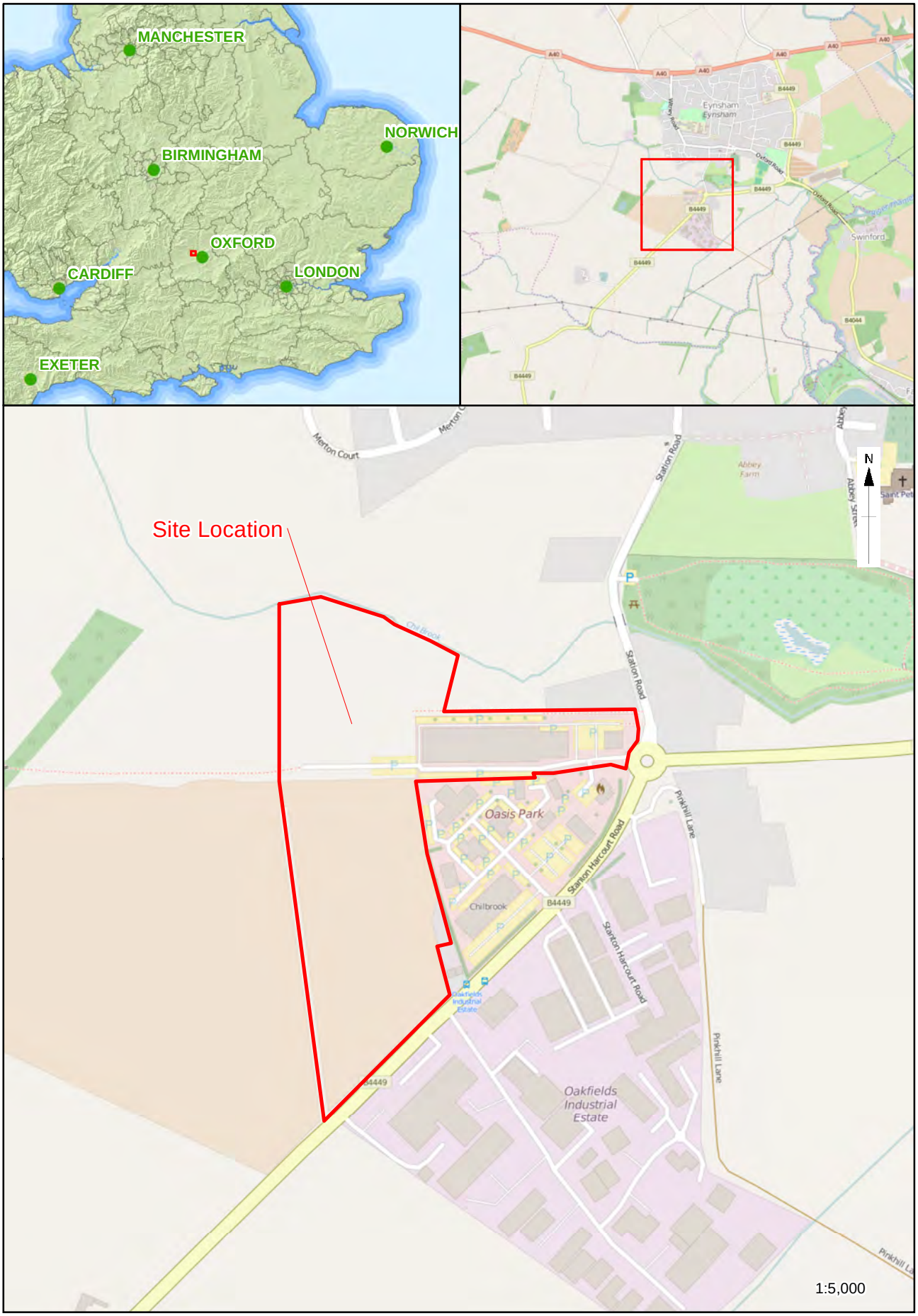

Figure 1: Site Location

Figure 2: Test Pit Locations

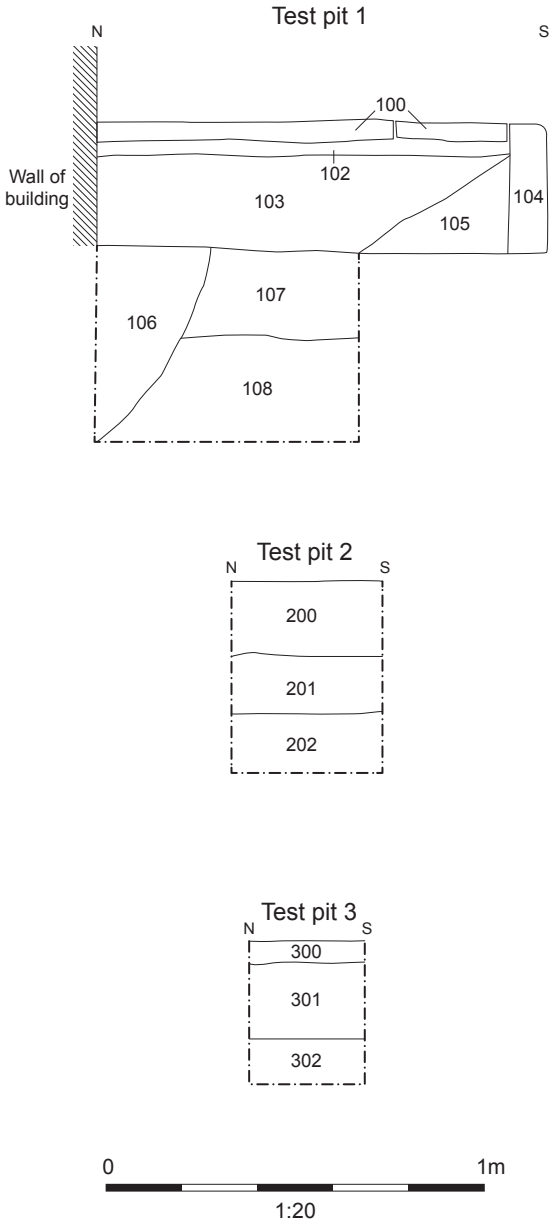

Figure 3: Sections of Test Pit 1, 2 and 3

Plate 1: Test Pit 1

Plate 2: Test Pit 2

Plate 3: Test Pit 3

Head Office/Registered Office/ OA South

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA North

Mill 3
Moor Lane
Lancaster LA1 1QD

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: oanorth@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
e: oaeast@oxfordarchaeology.com
w: http://oxfordarchaeology.com