

# Long-term Data Preservation and Re-use: the work of the Archaeology Data Service

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Archaeology Data Service  
University of York

- Challenges:
  - Digital Preservation
  - Resource Discovery and Interoperability – finding & joining up fragmented and diverse data sets
  - Political (& Economic) Context – Open Data
- Opportunities:
  - Digital dissemination & electronic publication
- The UK – Archaeology Data Service & *Internet Archaeology*
- Europe: ARIADNE e-infrastructure

# Digital Data Challenges

- Digital data are as fragile as the archaeological record we excavate
- They are still archived as objects rather than computerised information



# Digital Data and Archaeology

- [illegible]

# 2013: G8 Open Data Charter



18 June 2013: “a new era in which people can use open data to generate insights, ideas, and services to create a better world for all.”

# The Five Principles

Policy paper

## G8 Open Data Charter and Technical Annex

Published 18 June 2013

1. Open Data by Default
2. Increase Quality and Quantity for re-use
3. Usable by All
4. Releasing Data for improved Governance
5. Releasing Data for Innovation

## The Archaeology Data Service

- Set up in 1996
- Based within the University of York
- 15 staff
- Business model based upon charging policy
- Trusted Digital Repository: Data Seal of Approval
- Received Digital Preservation Coalition's Decennial Award in 2012
- Feb 2016: 10Tb; 2,054,846 **files**; 18,505 recorded **processes**

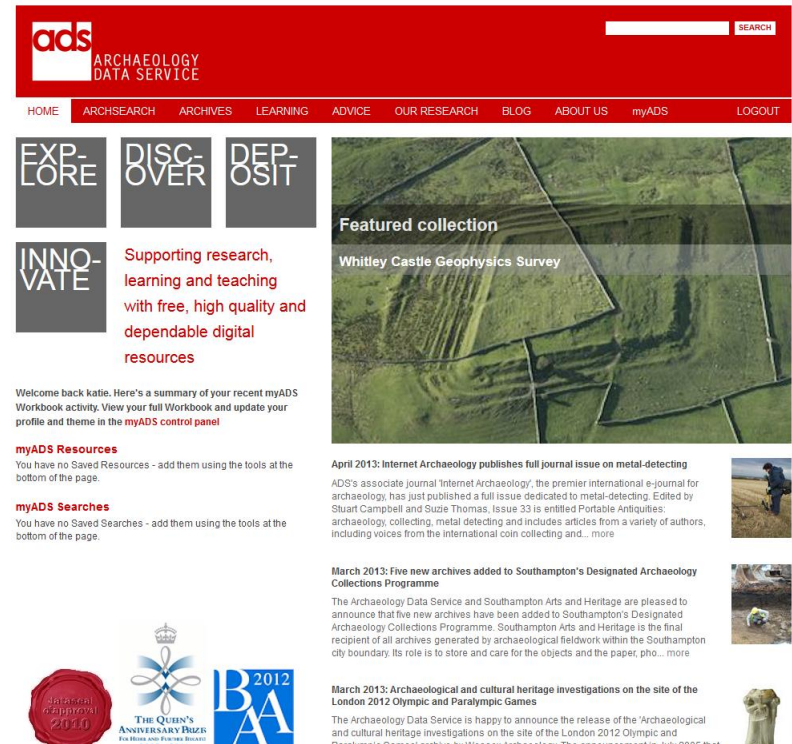




## The Archaeology Data Service

“Supporting research, learning and teaching with free, high quality and dependable digital resources”

- Collects and preserves datasets
- Provides easy and free access to datasets
- Provides guidance and support to data creators

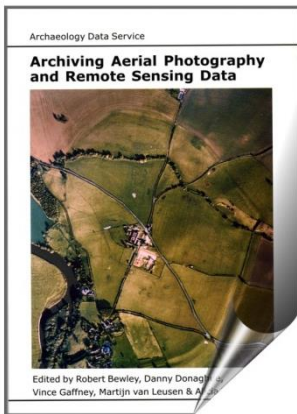


The screenshot shows the homepage of the Archaeology Data Service (ADS). The header is red with the ADS logo and a search bar. Below the header is a navigation menu with links: HOME, ARCHSEARCH, ARCHIVES, LEARNING, ADVICE, OUR RESEARCH, BLOG, ABOUT US, myADS, and LOGOUT. The main content area features three large buttons: EXPLORE, DISCOVER, and DEPOSIT. Below these are two smaller buttons: INNOVATE and a link to 'Supporting research, learning and teaching with free, high quality and dependable digital resources'. The 'Featured collection' section highlights the 'Whitley Castle Geophysics Survey'. Below this, there are several news items: 'April 2013: Internet Archaeology publishes full journal issue on metal-detecting', 'March 2013: Five new archives added to Southampton's Designated Archaeology Collections Programme', and 'March 2013: Archaeological and cultural heritage investigations on the site of the London 2012 Olympic and Paralympic Games'. At the bottom, there are logos for 'INTERNET ARCHAEOLOGY 2010', 'THE QUEEN'S ANNIERSARY PRIZE FOR HISTORY', and 'BA 2012'.



## Guides to Good Practice

- GIS
- CAD
- Geophysics
- AP and Remote Sensing
- Excavation and Fieldwork
- Virtual Reality



### Archaeology Data Service / Digital Antiquity Guides to Good Practice

Log in

- Home
- Full Table of Contents
- Digital Archiving
  - About these Guidelines
  - How to use these Guides
  - What is Digital Archiving?
  - Archival Strategies
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  - Planning for the Creation of Digital Data
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This new and revised series of Guides to Good Practice have been produced as the result of a two-year collaborative project between the UK Archaeology Data Service and Digital Antiquity in the US. The project has encompassed important revisions of the existing six ADS *Guides* as well as the development of entirely new documents covering areas such as marine survey, laser scanning, close-range photogrammetry, digital audio and digital video. The project has involved previous Guides authors revising existing content alongside new authors, from both Europe and the US, also contributing to the development of the guides into new themes and areas.

The project has been undertaken in collaboration with the Digital Antiquity initiative, a US-based project with the aim of enhancing the preservation of and access to digital records of archaeological investigations. A major aim of the Guides is to provide the basis for archaeological project workflows that will create digital datasets that can be archived and shared effectively by Digital Antiquity's tDAR archive and repository in the US and by the Archaeology Data Service in the UK. The development of the *Guides* involves close collaboration with teams in the US at both the University of Arkansas and Arizona State University.

Other ADS projects have also fed into the revision and development of the Guides. ADS involvement in the European VENUS project has formed the basis of a guide focussed on marine survey. In addition, the incorporation of findings from the ADS Big Data project, together with the revision of the existing guide on aerial photography and remote sensing data, has seen a significant contribution to the guides from English Heritage funded projects.

Previous versions of the ADS/AHDS Guides to Good Practice have been archived and are still available on the old Guides to Good Practice page.

View the full new Guides to Good Practice [Table of Contents](#)



ARCHAEOLOGY  
DATA SERVICE



The Digital  
Archaeological  
Record  
A SERVICE OF DIGITAL ANTIQUITY

The Andrew W. Mellon Foundation



ENGLISH HERITAGE







EXPLORE

DISCOVER

DEPOSIT

INNOVATE

Supporting research,  
learning and teaching  
with free, high quality and  
dependable digital  
resources

[About Us](#)

Welcome to the new ADS website. There are a number of new features of the website that will make it easier and more enjoyable to use. Please read the '[About](#)' this site section for more details. This site works best with the Firefox, Chrome and Safari browsers. Why not [register as a myADS user](#) to take full advantage of the additional features. On registration these personal myADS features become available.

### Workbook

Using the tools at the bottom of each page save your favourite resources and regular searches in the myADS Workbook.

### History

Your recent exploration of the site and the archives is automatically saved in your myADS History.

### Additional services

Registered ADS users can take advantage of a number of additional myADS services, such as tailored email alerts and download of configurable results sets.

## Featured collection

### Exeter Archaeology Archive Project



### March 2016: Call for Papers - Preservation and Re-Use of Digital Archaeological Research Data with Open Archival Information Systems

The ADS, IANUS, and DANS are pleased to invite submissions for the CHNT session on the preservation and re-use of data in Archaeology. This session will focus on the services and duties of existing repositories and archives and the implementation of the OAIS model within their day-to-day business of data curation, preservation and dissemination. Talks will address different aspects of how to pres... [more](#)



### February 2016: A Unique Engraved Shale Pendant from the Site of Star Carr

Internet Archaeology is pleased to announce the publication of A Unique Engraved Shale Pendant from the Site of Star Carr: the oldest Mesolithic art in Britain by Nicky Milner et al. The artwork on the pendant is the earliest known Mesolithic art in Britain; the barbed line motif is comparable to styles on the Continent, particularly in Denmark. When it was first uncovered the lines were barely v... [more](#)



## The Rural Settlement of Roman Britain: an online resource

Martyn Allen, Nathan Blick, Tom Brindle, **Tim Evans**, Michael Fulford, Neil Holbrook, **Julian D Richards**, Alex Smith, 2015

### Introduction

#### Query

#### Map

#### Metadata

#### Usage Statistics

#### Feedback questionnaire

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Historic England

### Primary contact

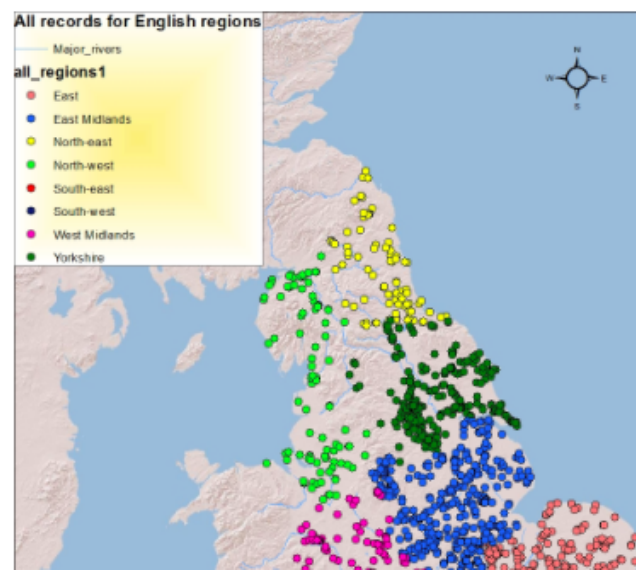
Prof Michael Fulford  
Professor of Archaeology  
School of Archaeology, Geography and  
Environmental Science  
University of Reading  
Whiteknights  
PO Box 218  
Reading  
RG6 6AA

### Introduction

This resource brings together the excavated evidence for the rural settlement of Roman Britain with the overarching aim to inform a comprehensive reassessment of the countryside of Roman Britain. It includes both traditionally published reports and 'grey literature' reports from developer-funded excavations since 1990.

The project arose from pilot projects undertaken by Cotswold Archaeology<sup>1</sup> and funded by Historic England and it began in 2012. It is funded by grants from the Leverhulme Trust to the Universities of Reading and York (ADS)<sup>2</sup> and from Historic England to Cotswold Archaeology.<sup>3</sup>

Phase 1 (April 2015) publishes the settlement evidence from Roman England. Subsequent phases will add Roman Wales (by December 2015) and the related finds, environmental and burial data (by 1st April 2017). These will be used alongside the specific site data in a series of integrative studies on rural settlement, economy, people and ritual to be published by the Society for the Promotion of Roman Studies as Britannia Monographs between 2016 and 2018.





## Council for British Research in the Levant Archaeological Monographs

Council for British Research in the Levant, 2015 (updated 2016)

### Monographs

### Usage Statistics

### Metadata

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### Primary contact

Council for British Research in the Levant  
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SW1Y 5AH

### Introduction

The Council for British Research in the Levant (CBRL) is an independent, not-for-profit organisation that conducts, supports and promotes research in the history, culture, society and archaeology of Jordan, Israel, the Occupied Palestinian Territories, Syria, Lebanon and Cyprus. Registered as a charity in 1998 following the merger of the British Institute at Amman for Archaeology and History and the British School of Archaeology at Jerusalem, the CBRL broadened its remit to support all the disciplines supported by the British Academy. This led to a period of organic growth and the CBRL now has an administrative office in London and two research institutes in the region: the CBRL Kenyon Institute (KI) in East Jerusalem and the CBRL British Institute in Amman (BIA).



### CBRL Publications

The CBRL publishes a peer-reviewed international journal, *Levant*, which deals with the history and archaeology of the region (<http://www.maneyonline.com/loi/lev>). The launch of a new journal, *Contemporary Levant*, is imminent and this will cover the recent past and present-day issues. In addition, the CBRL publishes monographs in the Levant Supplementary Series.

The Levant Supplementary Series is designed to present significant new contributions to the study of the humanities and social sciences, as relevant to the countries of the Levant; these have traditionally been published as hard-copy volumes. However, in line with our policy of seeking to promote the widest possible access to our research, we are making all existing volumes available in pdf format on a free-to-download, open access basis, three-years after the date of their initial publication. It is our intention that from 2016, all CBRL monographs will be published in digital format, and made freely downloadable from the ADS website.

### List of Monographs

Order by: [Title](#) | [Date](#)

Clarke, J. (2005)

# Ipswich 1974-1990 Excavation Archive

Suffolk County Council Archaeological Service, 2015

[Introduction](#)

[Overview](#)

[Site List](#)

[Interactive Map](#)

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## Primary contact

Suffolk County Council Archaeological Service

9-10 Churchyard

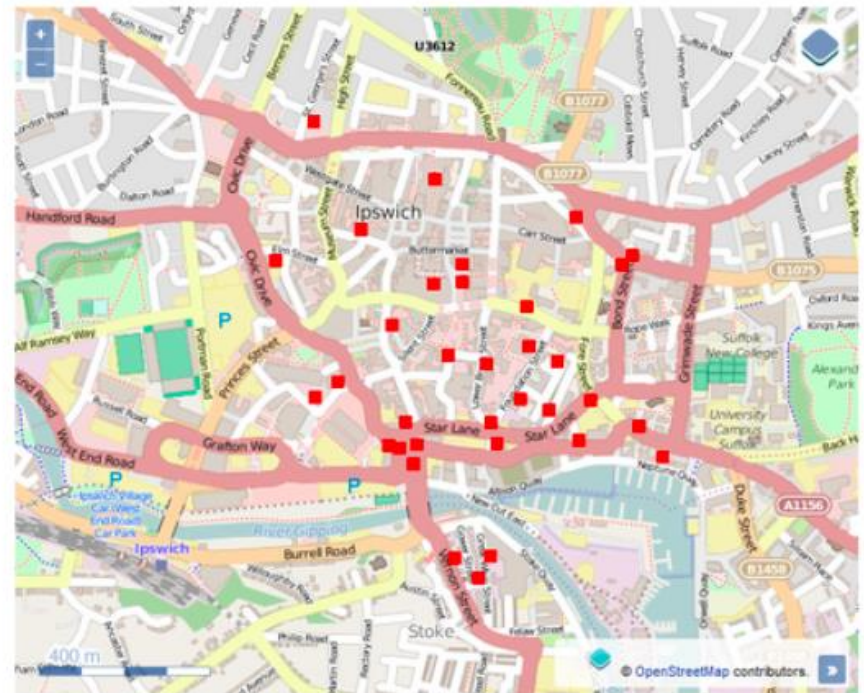
Bury St Edmunds

## Introduction

The modern town centre of Ipswich, centred at Ordnance Survey grid point TM 1590 4060, lies on the site of its Middle Saxon predecessor (Gippeswic).

Despite the recognition of the town's early foundation in the 1950s, little opportunity was taken to undertake archaeological excavation within the historic core until the 1970s. The recognition at this time that Middle Saxon Ipswich was one of only a handful of trading settlements displaying urban characteristics (emporia / wics) elevated the town's archaeological status to one of international importance.

Between 1974 and 1990 the 36 excavations on 34 sites archived here were carried out by the Suffolk Archaeological Unit (subsequently Suffolk County Council Archaeological Service) under the direction of Keith Wade. Much analysis had been done but further work towards publication was delayed and deferred





otherwise stated



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Ipswich  
IP33 1RX

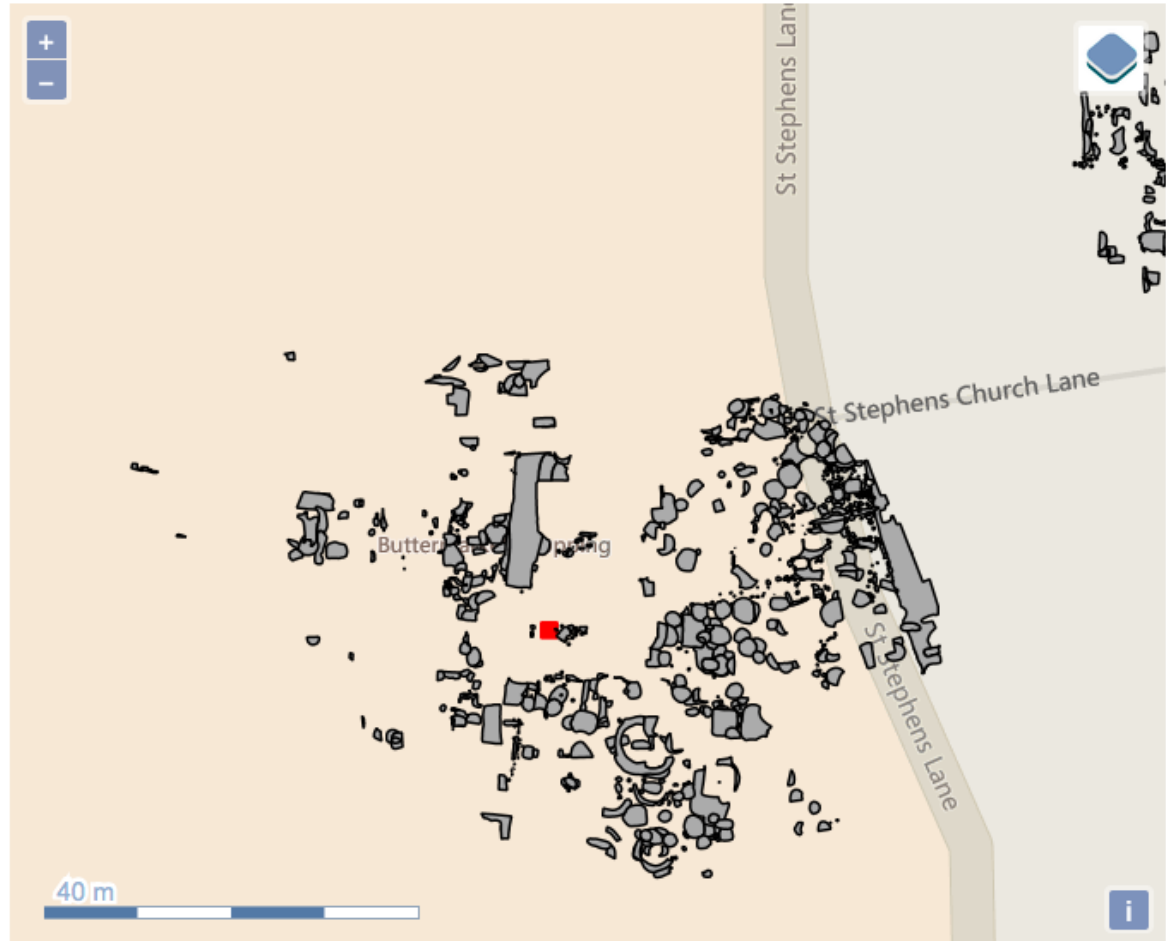
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### Resource identifiers

ADS Collection: 1644  
Collection doi:10.5284/1034376  
[How to cite using this DOI](#)



**Suffolk**  
County Council



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- ☒ All Features
- ☐ Select Features:
  - ☐ Beam slot
  - ☐ Building
  - ☐ Burial

- ☐ Prehistoric
- ☐ Romano-British
- ☒ Saxon (c.600-1000)
  - ☐ Early Middle Saxon (c.600-700)
  - ☐ Middle Saxon (c.700-850)
  - ☐ Early Late Saxon (c.850-900)



## Library of Unpublished Fieldwork Reports

### Introduction

[Browse by contractor](#)

[Contractors A-Z](#)

[Search reports](#)



GREY LITERATURE  
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The King's Manor  
University of York  
YO1 7EP  
UK  
Tel: 01904 433954  
Fax: 01904 433939

[Send e-mail enquiry](#)

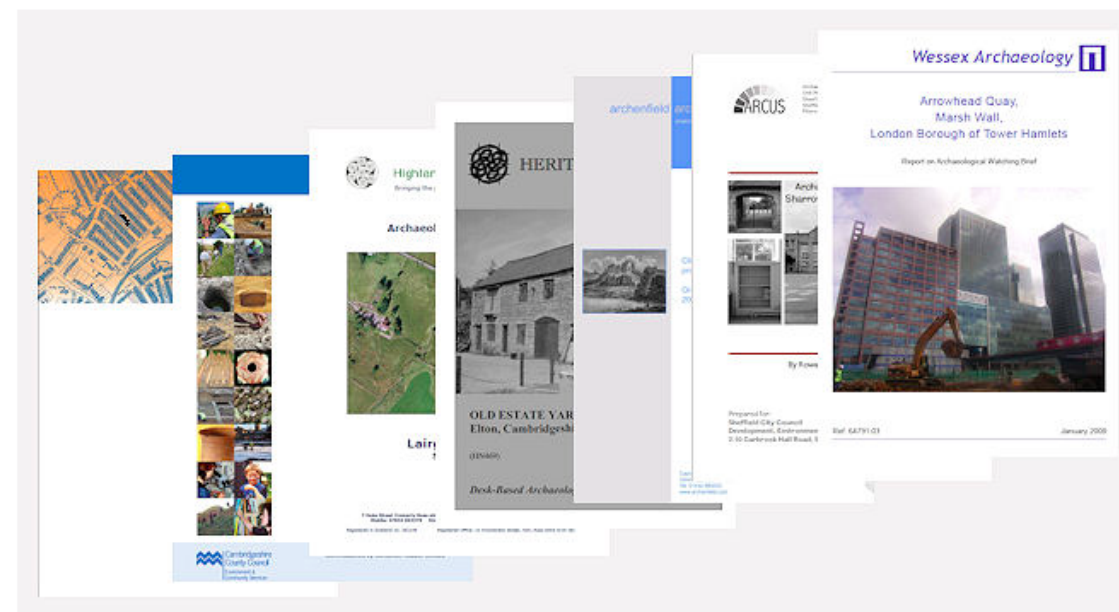
### Resource identifiers

ADS Collection: 1093

### Introduction

The aim of this resource is to make available unpublished fieldwork reports in an easily retrievable fashion. There are **currently 36804 reports available** and this number is increasing steadily through the OASIS project in England and Scotland.

Through this resource it is possible to list the reports by contractor, using the [browse by contractor](#) option and also to do a more advanced search filtering these reports by period, monument/artefact type and location using the [search](#) option. These unpublished reports cover archaeological interventions such as: watching briefs, excavation reports and building surveys. Desk-based assessments and specialist analysis are also included.

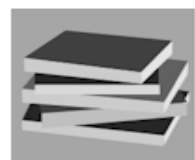


## Unpublished Fieldwork Reports (Grey Literature Library)

### Introduction

[Browse by contractor](#)

[Search reports](#)



GREY LITERATURE  
LIBRARY

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Fax: 01904 323939

[Send e-mail enquiry](#)

### Resource identifiers

**doi:**10.5284/1000746

[How to cite using this DOI](#)

### Details of Document

#### Bibliographic Reference and files

Blythe, K. (2005) *'The Limes, Ribchester'* , 2004-5/334. Oxford Archaeology North: Lancaster

Click on a button to open a file, or right click and use file --> save as from your browser menu to save the file to your computer. Alternatively, if the report is available online, click on the link to open the resource in a new window:

oxfordar2-35728\_1.pdf

PDF

1013  
Kb

[<< display document details >>](#)

#### Site details

##### Location

**Site name** The Limes, Ribchester  
**Parish** RIBCHESTER  
**District** RIBBLE VALLEY  
**County** LANCASHIRE  
**Country** ENGLAND  
**Grid reference** SD 65861 35410 (point)

##### Monuments and Finds

#### Other details

**Description** A4 Document  
**Associated identifier** oxfordar2-35728



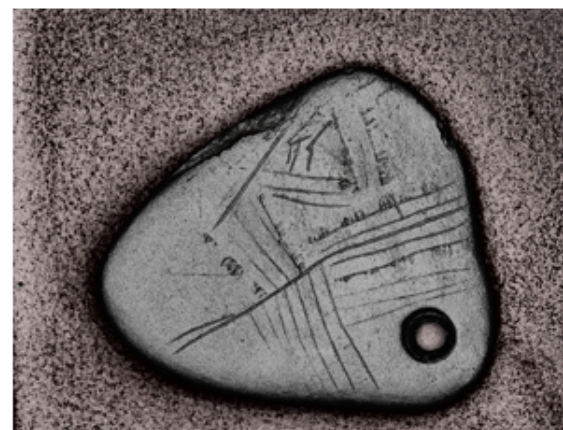
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33 34 35 36 37 38 39 40

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# A Unique Engraved Shale Pendant from the Site of Star Carr: the oldest Mesolithic art in Britain

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Altmetric 127

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*Cite this as:* Milner, N. *et al.* (2016). A Unique Engraved Shale Pendant from the Site of Star Carr: the oldest Mesolithic art in Britain, *Internet Archaeology* 40. <http://dx.doi.org/10.11141/ia.40.8>

## Summary

In 2015 an engraved shale pendant was found during excavations at the Early Mesolithic site of Star Carr, UK. Engraved motifs on Mesolithic pendants are extremely rare, with the exception of amber pendants from southern Scandinavia. The artwork on the pendant is the earliest known Mesolithic art in Britain; the 'barbed line' motif is comparable to styles on the Continent, particularly in Denmark. When it was first uncovered the lines were barely visible but using a range of digital imaging techniques it has been possible to examine them in detail and determine the



0 10 20 mm



# Star Carr Archives Project

Nicky Milner, Hayley Saul, Ben Elliott, 2013

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THE UNIVERSITY of York

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King's Manor

## Introduction

Star Carr is an internationally renowned, Early Mesolithic site in the Vale of Pickering, North Yorkshire. It was first discovered by a local amateur archaeologist, John Moore, but became known worldwide after the excavations of Professor Grahame Clark, 1949-1951, due to the well preserved, rare artefacts which were uncovered. More recent excavations by the Vale of Pickering Research Trust (in the 1980s and since 2004), have led to further important discoveries such as a timber platform (the earliest evidence of carpentry in Europe) and a structure (the earliest known "house" in Britain).



One of the biggest stumbling blocks to conducting further research is access to the archive from the earlier excavations. Moore's paper archive is missing. There is no known paper archive from Clark's excavations and it is thought that all records must have been destroyed once the monograph (Clark 1954) had been published. The only surviving records are some of the photographic slides which are held in the Museum of Archaeology and Anthropology, Cambridge (MAA) and a small number held by Scarborough Archaeology and Historical Society. In addition, Clark's excavated assemblage has been dispersed across many museums and there is no over-arching catalogue. The paper archive for the Vale of Pickering Research

## making the LEAP: linking electronic archives and publications



Arts & Humanities  
Research Council



The aim of the project is to investigate novel ways in which electronic publication over the Internet can provide broad access to research findings in the arts and humanities, and can also make underlying data available in such a way so that readers are enabled to 'drill down' seamlessly into online archives to test interpretations and develop their own conclusions.



Winner of the **British Archaeological Awards** - Best Archaeological Innovation 2008.

Highly Commended in **The Association of Learned and Professional Society Publishers Awards** - Publishing Innovation 2009.

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Strategy Programme.

"Making the LEAP" is funded by the Arts and Humanities Research Council (AHRC) under the ICT



internet  
archaeology



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Last updated Tuesday, 22 September 2009 by Jo Gilham

Cite only: <http://ads.ahds.ac.uk/project/leap/index.html> for this page





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## The Urban Landscapes of Ancient Merv, Turkmenistan

Tim Williams, Sjoerd van der Linde, 2008

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Overview  
Interactive Map  
Downloads

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### Resource identifiers

**ADS Collection:** 489  
**doi:** 10.5284/1000164  
[How to cite using this DOI](#)



### Introduction

Ancient Merv, in Turkmenistan, is one of the most complex and well-preserved urban centres on the Silk Roads of Central Asia. A succession of major cities at Merv started in the 6th century BC and continued until the Mongol sack of 1221AD, although Mongol occupation, a resurgent Timurid city of the 15th century, and expansion in the 19th century continues the urban sequence. Together the walled urban areas covered more than 1000 ha.

The Institute of Archaeology, University College London, has had a long collaboration with the Turkmenistan Ministry of Culture, focused on archaeological research and approaches to the conservation and management of the Ancient Merv Archaeological Park, which since 1999 has been a World Heritage Site.

The collection of monument photographs (dating from 1890 onwards) was first compiled by Georgina Hermann, former director of the International Merv Project, who published some of them in 'Monuments

of Merv. *Traditional Buildings of the Karakum*<sup>1</sup>. In 2002 an expanded version of the photographic collection was published in 'The Monuments of Merv - A scanned archive of photographs and plans'<sup>2</sup>, which included a CD-ROM with low resolution digital versions of the photographs. Since 2001 the Ancient Merv Project has added new images of the monuments, showing their current condition and conservation work, and more detailed metadata for the photographs has been assembled. More information on the Ancient Merv Project can be found at the [UCL website](#).

This digital archive was undertaken in conjunction with an electronic publication through the Linking Electronic Archives and Publications (LEAP) project. The corresponding article is 'The urban landscapes of Ancient Merv, Turkmenistan: Where to draw the line?' by Tim Williams & Sjoerd van der Linde, which can be found in [Internet Archaeology 25](#).



<sup>1</sup>Hermann, G. 1999. *Monuments of Merv: Traditional Buildings of the Karakum*. London: Society of Antiquaries London

<sup>2</sup>Hermann, G. Coffey H., Laidlaw S. and K. Kurbanakhtov 2002. *The Monuments of Merv - A scanned archive of photographs and plans*. London: University College London and British Institute of Persian Studies

## The landscapes of Islamic Merv, Turkmenistan: Where to draw the line?

Tim Williams

Institute of Archaeology, University College London, 31-34 Gordon Square, London WC1H 0PY. Email: [tim.d.williams@ucl.ac.uk](mailto:tim.d.williams@ucl.ac.uk)

### Summary

[Table of Contents](#) | [Subscribe](#) to this article.

This article outlines approaches for interpreting the Islamic city of Sultan Kala (Merv), c. 8th-13th centuries AD, based upon aerial photographic and satellite imagery. Hierarchies of assumptions (identification of individual wall lines; which frame spaces, rooms and courtyards; which are grouped as parts of specific buildings; which are part of urban blocks) and ontologies (information about these assumptions and the variable confidence of interpretation, from the position of lines to spatial function) provide a dynamic structure for the presentation of data, interpretation and theory.

The article establishes procedures and protocols within two sample areas (selected to represent the diverse features of the urban and suburban landscapes) to:

Explore the theory and methodology of documenting interpretation (and uncertainty) in the transcription of aerial photographic and satellite imagery  
Develop ontological approaches to structuring interpretations and assumptions, within a hermeneutic model.  
Provide a textual and graphic narrative of the development of the areas.  
Establish an online forum (weblog) to contribute to the long-term project.  
Explore the use of other forms of electronic archive material, in particular, how imagery and audio files can be used to develop the discussion of landscapes and buildings.



Preparation of this electronic publication and associated [archive](#) was assisted by a [grant](#) from the AHRC under the ICT Strategy programme.

Go to article [Table of Contents](#)

### Features

This article will appeal to: those interested in the presentation of data, interpretation and theory  
Keywords: Merv; Silk Route; Turkmenistan; interpretation; uncertainty; aerial photographs; satellite  
Find more publications on [the Silk Route](#) in the British and Irish Archaeological Bibliography (BIAB)



## The Urban Landscapes of Ancient Merv, Turkmenistan

Tim Williams, Sjoerd van der Linde, 2008

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### Resource identifiers

**ADS Collection:** 489  
**doi:** 10.5284/1000164  
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[Image files](#) | [GIS files](#) | [Documents](#) | [Movies](#) | [Oral Interviews](#)

### Downloads

This section contains the shapefiles and aerial photos of the GIS as well as documentation. The aerial photos are very large so previews have been provided of a common area of the images to offer a comparison of quality and processing employed.

### GIS files

Documentation:

GIS Layers	<a href="#">PDF</a>	71 Kb
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### Raster and World Files:

The raster images here are very large and may take a considerable time to download for some users with slower internet connections. Use the preview of the image on the left to see the quality and processing effects to determine if the image is desired before downloading. The complete TIFF and World File are zipped up and can be downloaded by clicking on the ZIP box on the right. Information on the images and the processing used can also be found in the 'GIS Layers' documentation above.

	AP Dom-Joined and enhanced	<a href="#">ZIP</a>	80 Mb
<a href="#">PREVIEW</a>			
	Ikonos	<a href="#">ZIP</a>	45 Mb
<a href="#">PREVIEW</a>			
	AP Ceri-Joined	<a href="#">ZIP</a>	64 Mb
<a href="#">PREVIEW</a>			
	Russian map	<a href="#">ZIP</a>	4 Mb
<a href="#">PREVIEW</a>			
	AP Dom-Joined	<a href="#">ZIP</a>	86 Mb
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	AP Ceri-z ut contrasted	<a href="#">ZIP</a>	25 Mb

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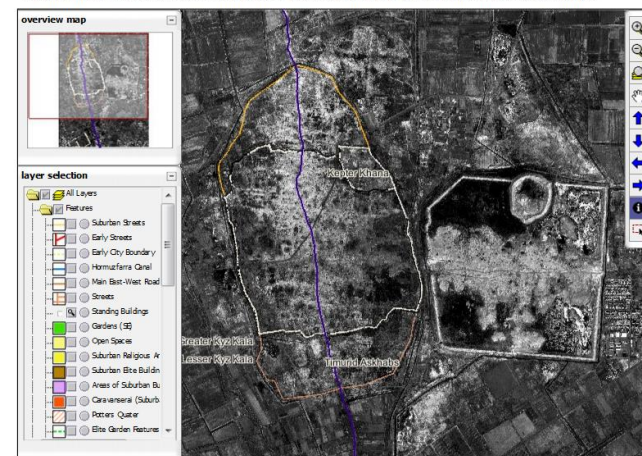
## 3. A short introduction to the city of Sultan Kala

With the coming of Islam, in the 7th century AD, Merv became the capital of Khurasan (the 'eastern land') (for an overview of the history see Kennedy [1999](#); Williams [forthcoming](#)). In the 740s the 'Abbasid revolution began here, and while Baghdad was established as the capital of the new empire, Merv's status grew, as the capital of Khurasan, from east of the Great Desert to the frontiers of India. In the same decade, the governor, Abu Muslim, commissioned a mosque to be built alongside the Madjan Canal, which flowed about a kilometre to the west of the old city of Gaur Kala. Thus began the new city of Marv al-Shahijan (Merv the great: today Sultan Kala) ([Fig. 7](#) - opens GIS). It is tempting to see the mosque as part of the planning for the heart of the new city, and by the 9th century it lay at the centre of a thriving metropolis. The city was planned, with a street system and a carefully managed water supply with numerous canals and reservoirs in each district (Williams [forthcoming](#)). It seems likely that the new status of Merv, coupled with new ideas and beliefs that identified the need for public

Figure 6: A short introductory film about Merv



Switch to the [Turkmen](#) version





## Heathrow Terminal 5 Excavation Archive (Data Paper)

### Framework Archaeology (comp)

Re-use potential

Wessex Archaeology, Portway House, Old Sarum Park

Cite this as: Framework Archaeology (2014). Heathrow Terminal 5 Excavation Archive (Data Paper). Internet Archaeology, (36). <http://dx.doi.org/10.11141/ia.36.8>

### Dataset Location

The dataset has been deposited with the A

### Referee

[Referee statement](#) by Nicholas J. Cooper

### Dataset Content

The digital archive for excavations at Heathrow Terminal 5 is a necessary to reconstruct a working geographical phase of excavation on the project from into the GIS shapfiles as described in the Strati to ma

The dataset was constructed with two main approaches to re-use in mind:

- Supportive: in that it provides the detailed raw data to support both the interpretations arrived at by Framework Archaeology and those of others wishing to re-interpret the history of the landscape at Heathrow.
- Comparative: as far as possible Framework Archaeology attempts to structure all its digital archives identically so that data from Heathrow (Framework Archaeology) recovered from Stansted (Framework Archaeology) possible allows the data to be re-worked to comparisons with data derived from organis

### Referee Statement

Nicholas J. Cooper, University of Leicester Archaeological Services LE1 7RH

Cite this as: Cooper, N.J. 'Referee Statement' in Framework Archaeology (2014). Heathrow Terminal 5 Excavation Archive (Data Paper). Internet Archaeology, (36). <http://dx.doi.org/10.11141/ia.36.8>

This data paper flags up the publication of the third level of information relating to the Terminal 5 excavations undertaken by Framework Archaeology at Heathrow and joins their other major archived projects at Stansted. The publication of the full digital archive provides an opportunity to explore the entire and updated record of the excavations that was previously only partially available on the Free Viewer CDs accompanying the two published site narrative volumes in 2006 and 2010.

Framework Archaeology was founded on the principle of undertaking 'academically-driven projects within the commercial environment' which place the previous inhabitants at the heart of the story; ditches did not continue in an easterly direction on their own but, instead, were dug by people who, as a community, made choices about living in a landscape, which consequently evolved around them over time. The mechanism driving this principle was to develop a hand-held on-site recording system that would allow interpretation to evolve in an informed way during the excavation itself and right through the post-excavation phase. At the heart of the digital archive is therefore a GIS package accompanied by stratigraphic, finds and environmental datasets, allowing the user to reconstruct the excavation of the site and potentially re-interpret it. Considerable time has therefore been devoted to making the system work effectively and this greatly enhances its usability.

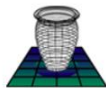


## Framework Archaeology Heathrow Terminal 5 Excavation Archive

Framework Archaeology, 2011

- Introduction
- Overview
- Query
- Downloads
- Metadata
- Usage Statistics

Data copyright © Framework Archaeology unless otherwise stated



### Primary contact

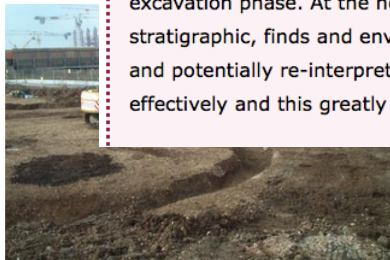
Wessex Archaeology  
Portway House  
Old Sarum Park

Open "archaeologydataservice.ac.uk" in a new tab

### Introduction

Framework Archaeology is a Joint Venture agreement between Archaeology (WA) to provide archaeological services to BAA. G projects, the joint venture enables Framework Archaeology to d WA, including site staff, specialist managers, administrative sup combination of resources (totalling over 300 staff) considerably provides Framework Archaeology with a wider skills base.

Framework Archaeology is committed to a particular archaeological philosophy developed by BAA's archaeological consultants, Gill Andrews and John Barrett. This is concerned with understanding how people inhabited past landscapes: archaeology as a study of people rather than deposits or objects. This approach is at the heart of the Archaeological Policy adopted by the BAA Main Board. Framework projects are thus academically driven but undertaken within a commercial environment. In order to fulfil the approach a Framework Archaeology recording system has been developed and is now in operation on all Framework Projects. It places great emphasis on interpretation in addition to recording, and developing a historical narrative as the site is excavated (Andrews, Barrett & Lewis 2000).





ENGLISH HERITAGE

THE UNIVERSITY of York

### Primary contact

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York  
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Tel: 01904 323940  
Fax: 01904 323902

[Send e-mail enquiry](#)

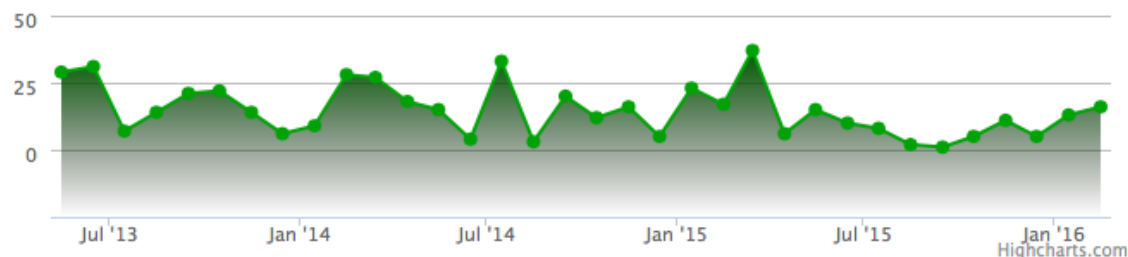
### Resource identifiers

ADS Collection: 1335  
Collection doi:10.5284/1019856  
[How to cite using this DOI](#)

If a visitor comes to the website for the first time, or if they visit a page (or download a file) more than 30 minutes after their last page view, this will be recorded as a new visit. A unique visitor making multiple visits per day will register as several visits.

### File downloads

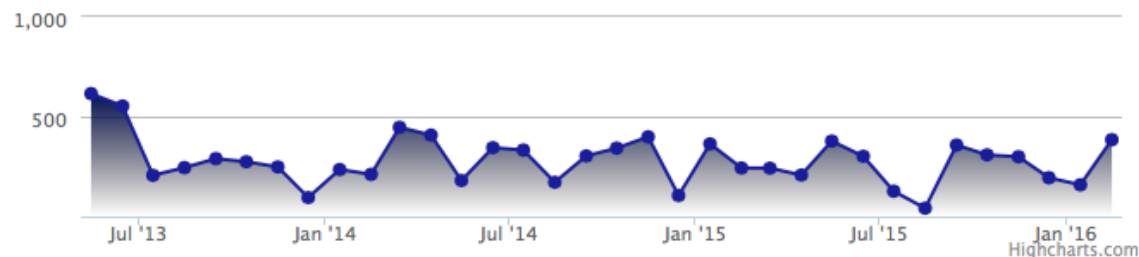
Click and drag in the plot area to zoom in



A download is a click on a link to something other than a web page, file extensions include: csv, doc, docx, gif, jar, jpg, jpeg, mp3, mp4, mov, odb, odt, pdf, png, ppt, pptx, txt, wav, wma, wmv, wpd, xls, xlsx, xml, zip but this is not an exhaustive list.

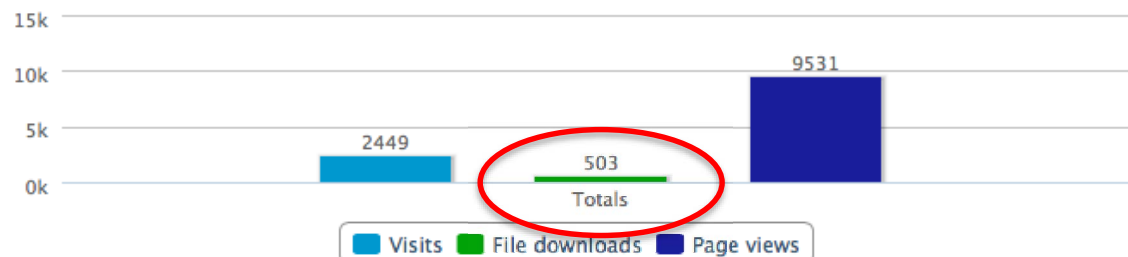
### Page views within the archive

Click and drag in the plot area to zoom in



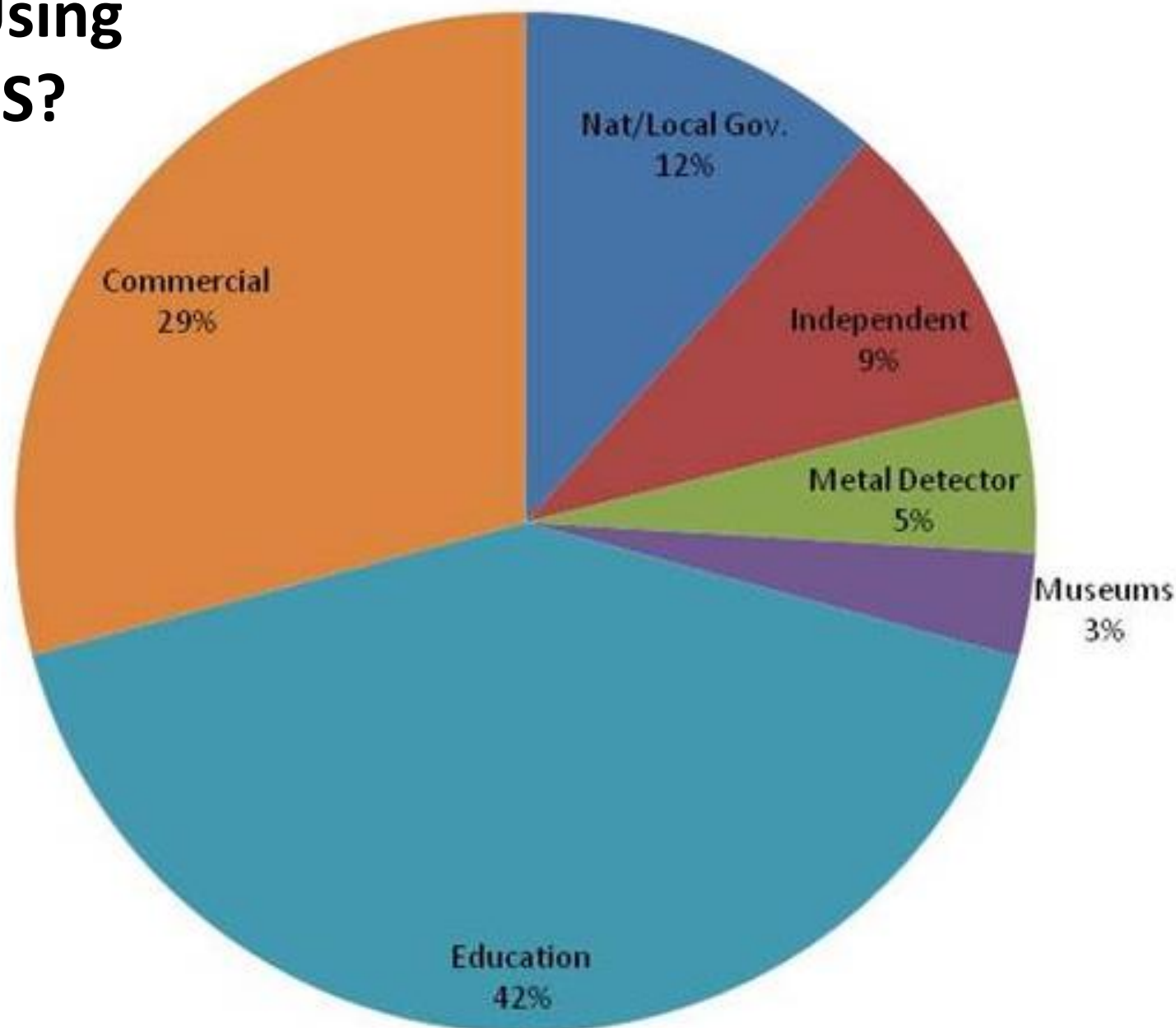
Pages viewed is the number of HTML pages or scripts that visitors have looked at. A "page" is a hit that is not an image, JavaScript or CSS file and which was not loaded by a search engine robot.

### Totals since May 2013

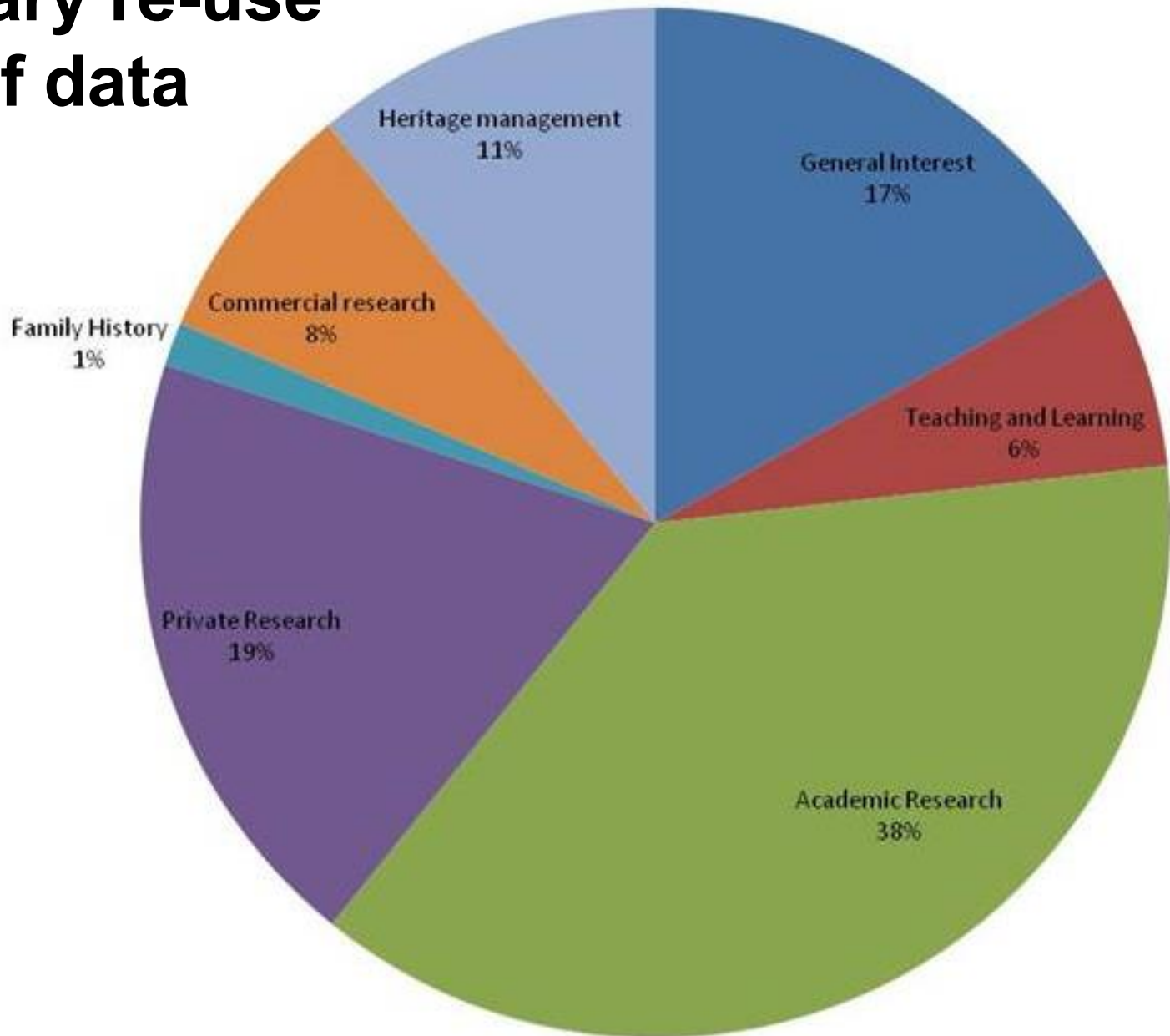


Statistics start from May 2013 but if the values are zero to start with they are not shown. Zero values after the start of use for the archive are shown.

# Who is Using the ADS?

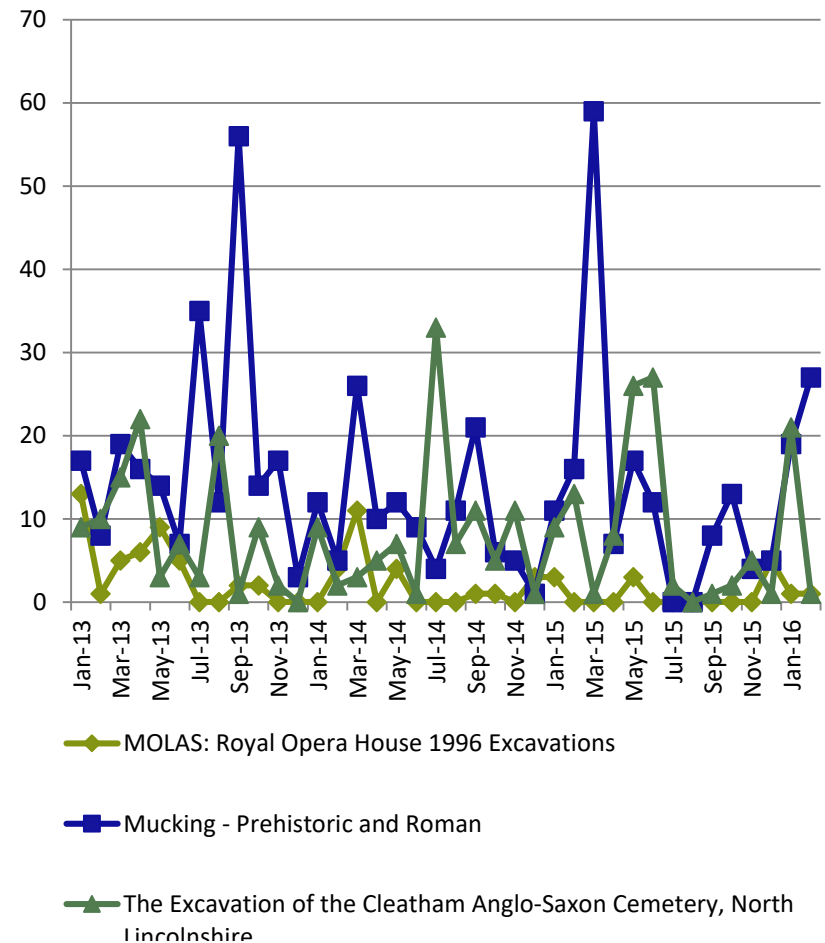
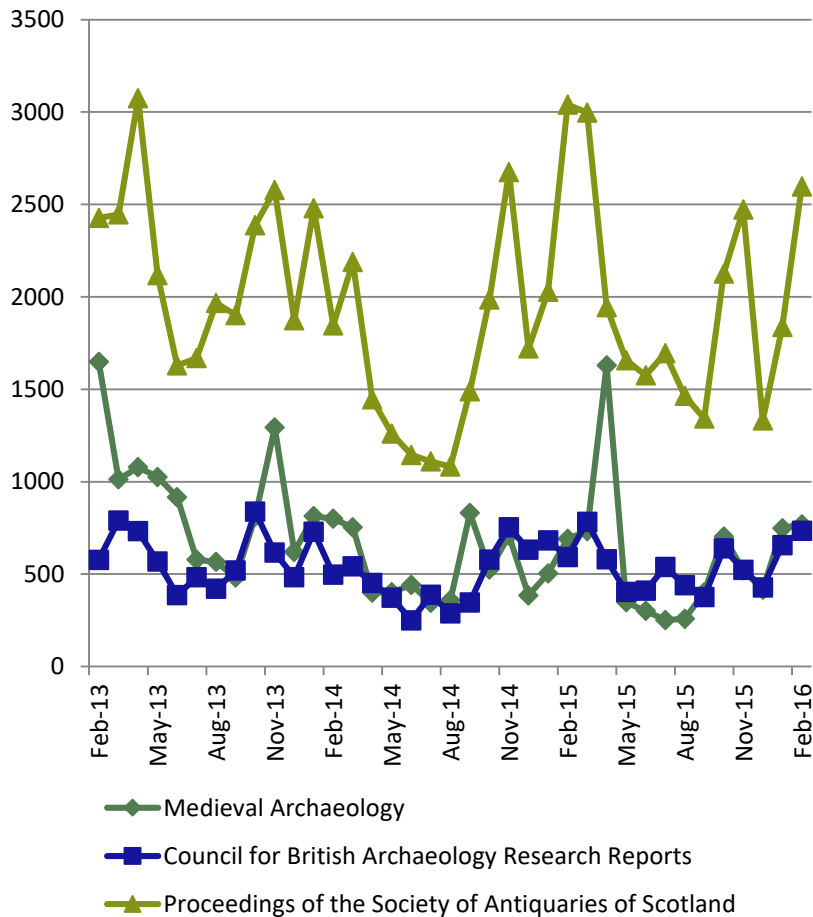


# Primary re-use of data





# ADS Downloads: papers vs data sets



# Data Re-Use

- Data collection is expensive!
  - Fowler: estimated only able to take account of 5% of information gained in last 20 years
  - Bradley: British & Irish Prehistory – 3 person years
  - Richards: Viking and Anglo-Saxon Landscape and Economy Project – using Portable Antiquities Scheme data – 2 person years of data cleaning
  - Fulford: Roman Rural Settlement project – 6 person years of data collection

# Data Preservation has a cost too

ads

easy

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**The costing calculator allows potential depositors to assess the cost, and more effectively plan, for the archiving of data with the Archaeology Data Service using the ADS-easy system**

The costings created using the calculator should be regarded as a guide to the potential cost of deposition via ADS-easy and should not be treated as a statement of actual costs. This estimate will be current for the duration of the financial year in which it is calculated (April - March), i.e. an estimate made in January will only be valid until the end of March. **If your project requires a definitive costing (especially for AHRC and NERC funding applications) you are encouraged to [contact us](#) directly.**

[Find out more about charging and the costing calculator.](#)

Project Funding Type: ☐ AHRC applicants ☒ All other users

Data Type:  File Extension:  Quantity:  [Add](#)

Data Type	File Extension	Quantity (File)	Unit Price	Unit Price (Total)	Remove
Database	mdb	3	£3.00	£9.00	<a href="#">Remove</a>
Text	pdf	20	£3.00	£60.00	<a href="#">Remove</a>

Subtotal	£69.00
<b>TOTAL</b> (incl. £150.00 project start up fee & VAT 20%):	<b>£262.80</b>
If you choose to deposit by traditional methods, the estimated price is considerably higher at: <a href="#">read more</a>	£405.60*

# Research Value

## ADS: % respondents

- 84% - ADS has had an impact on data sharing
- 79% - reduced time required for data access and processing
- 51% - New intellectual opportunities
- 56% - Permitted new types of research
- 94% - Data very or quite important for their research



JISC

Data centres: their use, value and impact



Figure 16: Impact on culture of data sharing, by data centre

	ADS	BADC	CDS	ESDS	NGDC
To a large extent	84%	69%	72%	54%	68%
To a small extent	16%	29%	27%	40%	30%
Not at all	0%	2%	1%	7%	3%
N=	61	601	164	244	37

Source: Technopolis ranking based on survey of data centre users, January 2010

# Economic Impact

Beagrie/ Houghton 2014:

- Investment value £1.2m pa
  - £698,000 pa funding from sponsors
  - £465,000 pa indirectly contributed by depositors
- Direct use value £1.4m pa
- But efficiency impacts £13m-£58m per annum
- Research efficiency gains = 7 hours per person per week
- **£1 investment provides up to £8.30 return**



**CENTRE FOR STRATEGIC  
ECONOMIC STUDIES**



# The European Dimension



E-Infrastructures, Interoperability  
and “Multiple Shop Windows”



Ariadne



## About Ariadne

[Read More](#)

ARIADNE brings together and integrates existing archaeological research data infrastructures so that researchers can use the various distributed datasets and new and powerful technologies as an integral component of the archaeological research methodology. There is now a large availability of archaeological digital datasets that, together, span different periods, domains and regions; more are continuously created as a result of the increasing use of IT. These are the accumulated outcome of the research of individuals, teams and institutions, but form a vast and fragmented corpus and their potential has been constrained by difficult access and non-homogenous perspectives.

## Latest News

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- Dec 14 2015 [CHNT 21 - Calls](#)
- Nov 24 2015 [Landscape Reconstruction](#)
- Nov 10 2015 [ARIADNE at Digital Heritage 2015](#)

## Events

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- Nov 28 2016 [IKUWA6](#)
- Aug 30 2016 [EAA 2016](#)
- Apr 6 2016 [SAA 81st Annual Meeting](#)
- Mar 29 2016 [CAA Conference 2016](#)

## Tweets

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**Ariadne\_Network** @Ariadne\_Network 17 Dec  
 Pisa declaration on policy for Grey Literature - sign here! [greyguide.isti.cnr.it](#) covers a wealth of knowledge not commercially published  
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**DH Group at FBK** @DH\_FBK 17 Dec  
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**Ariadne\_Network** @Ariadne\_Network 17 Dec  
 Interested in the digital curation of archaeology knowledge? this @Ariadne\_Network summer school could be for you: [tinyurl.com/zxfespy](#)  
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## Project consortium

 <b>PIN Scti - Polo Universitario "Città di Prato" - Coordinator</b> Italy	 <b>Archaeology Data Service - Deputy Coordinator</b> UK	 <b>Data Archiving and Networked Services</b> Netherlands
 <b>Deutsches Archäologisches Institut – German Archaeological Institute</b> Germany	 <b>MDR Partners</b> UK	 <b>Athena Research Centre</b> Greece
 <b>Consiglio Nazionale delle Ricerche</b> Italy	 <b>Salzburg Research Forschungsgesellschaft m.b.H.</b> Austria	 <b>The Discovery Programme LBG</b> Ireland
 <b>Swedish National Data Service</b> Sweden	 <b>Consejo Superior de Investigaciones Científicas, Instituto de Ciencias del Patrimonio</b> Spain	 <b>Znanstvenoraziskovalni Center Slovenske Akademije Znanosti In Umetnosti</b> Slovenia
 <b>University of Glamorgan</b> UK	 <b>Hungarian National Museum/National Heritage Protection Centre</b> Hungary	<b>The Cyprus Institute Limited</b> Cyprus

## Introduction

### Consortium

**PIN - Coordinator**  
**ADS - Deputy Coordinator**  
**KNAW-DANS**  
**DAI**  
**MDR**  
**Athena-RC**  
**CNR**  
**SRFG**  
**Discovery**  
**SND**







All fields ▾

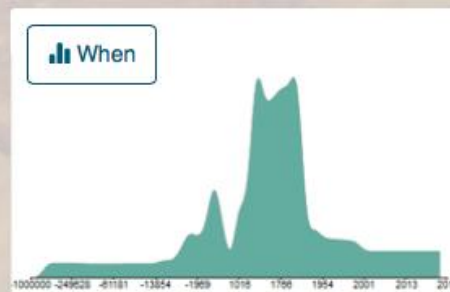
Search for resources in the Ariadne catalog ...

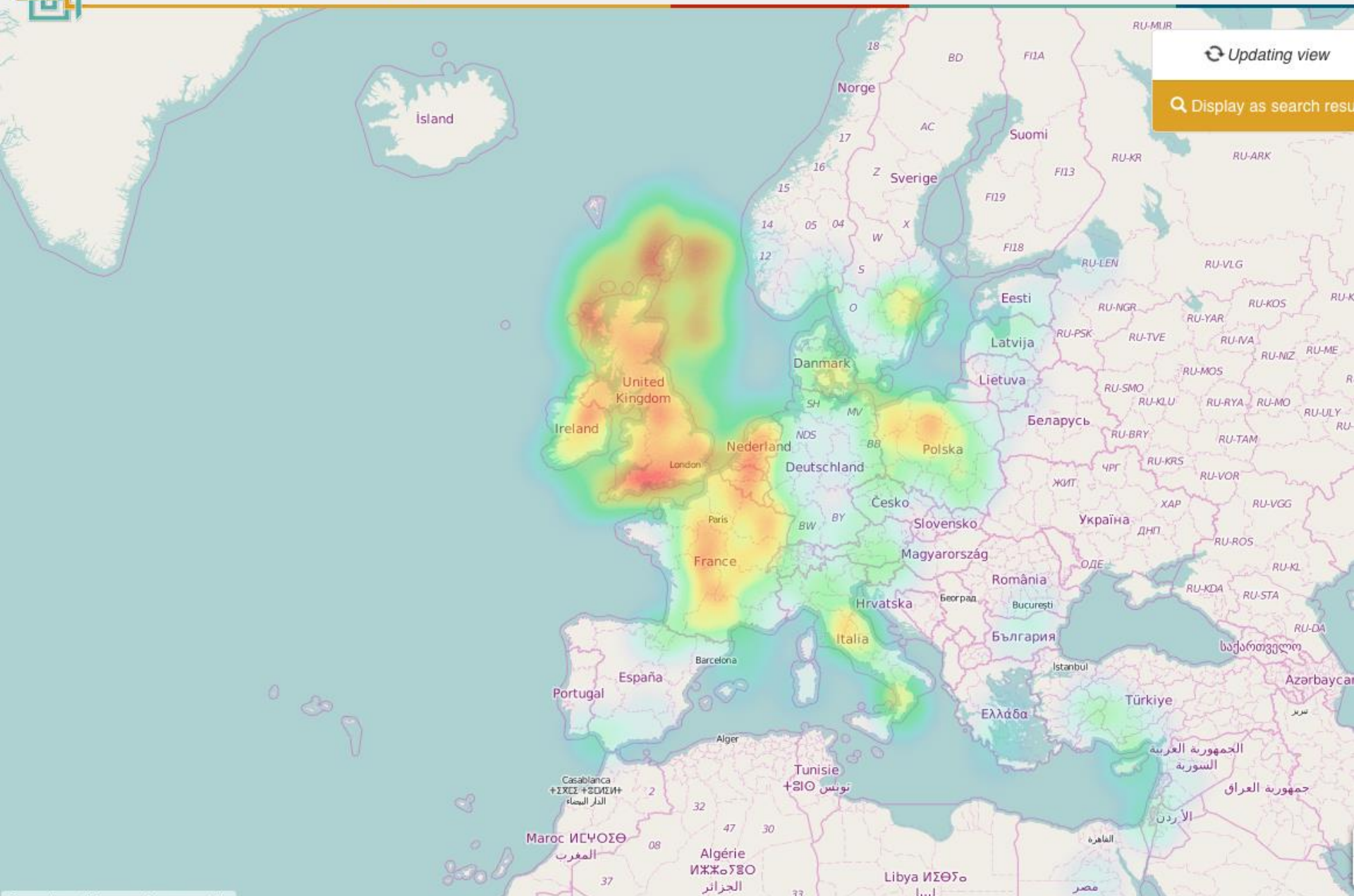


## Welcome

ARIADNE brings together and integrates existing archaeological research data infrastructures so that researchers can use the various distributed datasets and new and powerful technologies as an integral component of the archaeological research methodology.

## Browse the Catalog









Start a new search...

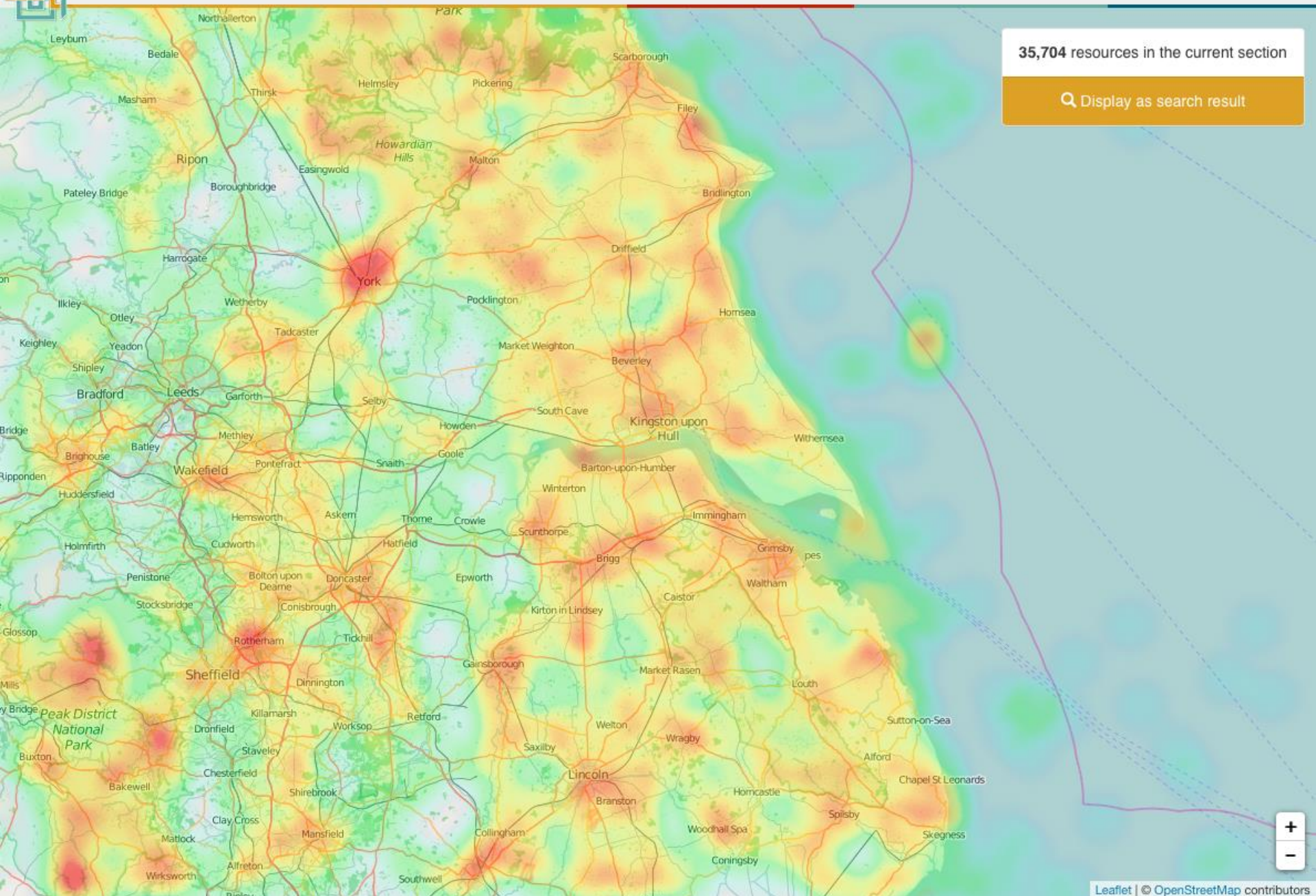


 Catalog

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35,704 resources in the current section

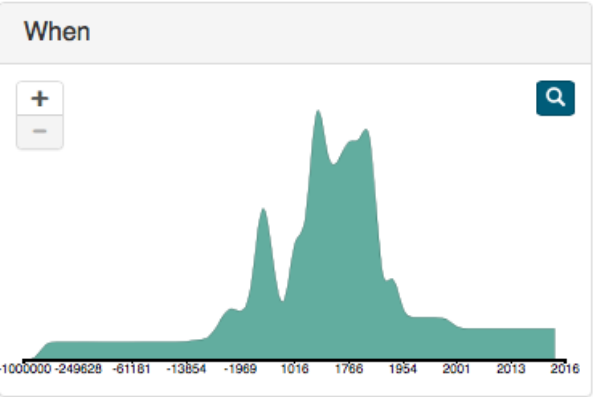
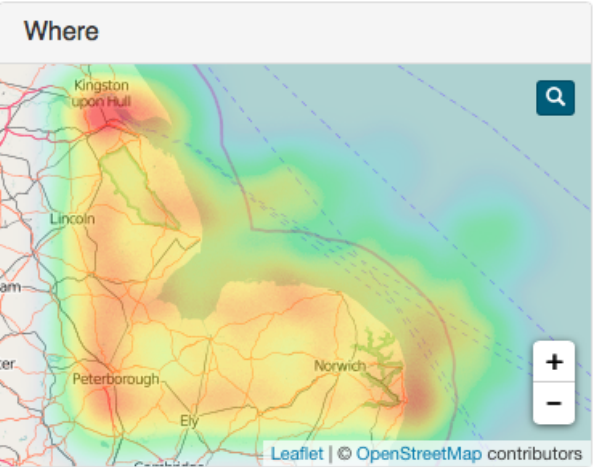
 Display as search result

Current search

\*



Filters



Total results: 25,800

«

1

2

3

4

5

6

7

8

...

2579


2580

»

Order By 

Score





- 

WEST END, GUNBY ROAD (PLOT 1)

Type: Sites and monuments databases or inventories Publisher: Archaeology Data Service



Monitoring of residential development groundworks recorded undated linear features only. Accession no: 2001.106.


- 

ANTI TANK BLOCK

Type: Sites and monuments databases or inventories Publisher: Archaeology Data Service



See Defence of Britain database entry


- 

REDGATE HILL,HUNSTANTON

Type: Sites and monuments databases or inventories Publisher: Archaeology Data Service



Magnetometer scan to examine the extent of magnetically disturbed land near to a known area of neolithic activity.


- 

HMS LORD SELBORNE

Type: Sites and monuments databases or inventories Publisher: Archaeology Data Service


1941 wreck of a British trawler which foundered in the River Humber after detonating a mine. This steel steam vessel, built in 1917, was hired by the Admiralty as a patrol boat.


- 

CALEDONIA

Type: Sites and monuments databases or inventories Publisher: Archaeology Data Service

ENGLISH SCHOONER, 1907





[← Back to search results](#)

## Number 1 Poultry (ONE 94)

[Access resource on the web](#)

The site of 1 Poultry is located near the Bank of England, in the heart of the City of London. During the 1990s, one of the largest excavations in the City recovered a remarkable archaeological sequence from the 1st to the 20th century AD. This was augmented by findings from nearby sites at Bucklersbury, Lothbury, Lombard Street, 72-75 Cheapside, 76-80 Cheapside, 36-37 King Street and Mansion House. 1 Poultry lies immediately west of the point where the main east-west road through Roman London bridged the Walbrook stream and uncovered an unparalleled sequence of buildings, roads, and open spaces. A timber drain of AD 47 beneath the main road is the earliest, securely dated structure yet known from Londinium, and a pottery shop, destroyed in the Boudican revolt, gives a snapshot of life in AD 60/61. A 2nd-century AD writing tablet preserves the only evidence for the sale of a slave found in Britain to date, while the 3rd- and 4th-century AD buildings on the site provide a rare demonstration of the continuities and changes that occurred in Roman urban life.

[Read more](#)[Early Medieval](#) [Medieval](#) [Post Medieval](#) [Roman](#)[World, Europe, United Kingdom, England, Greater London, London, City of London \[7011798\]](#)

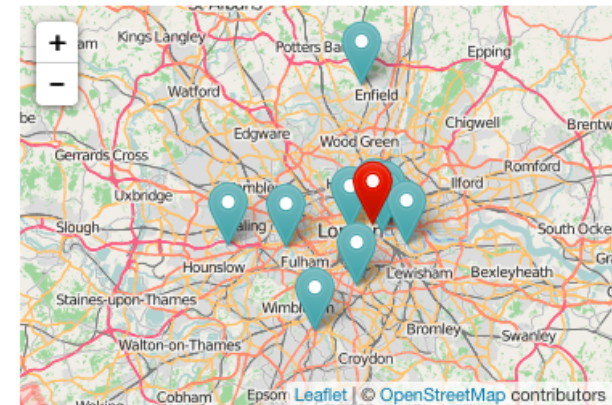
### Metadata

Identifier	19138479
Language	English
Resource type	Fieldwork archives
Type	Collection
Publisher	Archaeology Data Service [Organization]
Issued	2013
Contributor	Museum of London Archaeology [Organization]

### License information

Access Rights	ADS Terms and Conditions
Access Policy	<a href="http://archaeologydataservice.ac.uk/advice/termsOfUseAndAccess">http://archaeologydataservice.ac.uk/advice/termsOfUseAndAccess</a>

### Geographically similar

[Current resource](#)[Similar resource](#)

### Thematically similar

- [Maltings Lane, Witham, Essex Archaeological Excavation](#)
- [The evolution of Rome's maritime facade: archaeology and geomorphology at Castelporziano](#)
- [Framework Archaeology Heathrow Terminal 5 Excavation Archive](#)
- [Mill Close, Grantham, Lincolnshire. Archaeological Watching Brief](#)
- [Mersham ARC MSH 98](#)
- [Archaeological and cultural heritage investigations on the site of the London 2012 Olympic and Paralympic Games](#)
- [Roman Piercebridae](#)

# Number 1 Poultry (ONE 94)

## Museum of London Archaeology, 2013

[Introduction](#)  
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[Metadata](#)  
[Usage Statistics](#)

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Archaeology unless otherwise stated



ENGLISH HERITAGE

### Introduction

The site of 1 Poultry is located near the Bank of England, in the heart of the City of London. During the 1990s, one of the largest excavations in the City recovered a remarkable archaeological sequence from the 1st to the 20th century AD. This was augmented by findings from nearby sites at Bucklersbury, Lothbury, Lombard Street, 72-75 Cheapside, 76-80 Cheapside, 36-37 King Street and Mansion House.

1 Poultry lies immediately west of the point where the main east-west road through Roman London bridged the Walbrook stream and uncovered an unparalleled sequence of buildings, roads, and open spaces. A timber drain of AD 47 beneath the main road is the earliest, securely dated structure yet known from Londinium, and a pottery shop, destroyed in the Boudican revolt, gives a snapshot of life in AD 60/61. A 2nd-century AD writing tablet preserves the only evidence for the sale of a slave found in Britain to date, while the 3rd- and 4th-century AD buildings on the site provide a rare demonstration of the continuities and changes that occurred in Roman urban life.





# PeriodO

A gazetteer of period definitions for linking and visualizing data.

[Download](#)

the period definitions as JSON.

[Use](#)

the PeriodO period browser.

## What is this?

PeriodO is a gazetteer of scholarly definitions of historical, art-historical, and archaeological periods. It eases the task of linking among datasets that define periods differently. It also helps scholars and students see where period definitions overlap or diverge.

## Who are you?

The PeriodO project is led by [Adam Rabinowitz](#) (University of Texas at Austin), [Ryan Shaw](#) (University of North Carolina at Chapel Hill), and [Eric Kansa](#) ([OpenContext](#)). Patrick Golden developed the [PeriodO software](#) and [Sarah Buchanan](#) helped curate the initial dataset. Our work is funded by a Digital Humanities Start-Up Grant from the [Office of Digital Humanities](#) at the National Endowment for the Humanities.

## Tell me more.

Start by looking at the [guide to using PeriodO](#).

You may also be interested in reading about the [motivation](#) for the project or getting a [technical overview](#). Further information can be found in our [publications](#). To keep up with PeriodO developments, follow us on Twitter: [@perio\\_do](#). Or [contact us](#) and ask whatever you want!

# ARIADNE Consortium. ARIADNE Data Collection. 2015.

Permalink: <http://n2t.net/ark:/99152/p0qhb66>

Title	ARIADNE Data Collection
Citation	ARIADNE Consortium. "ARIADNE Data Collection". 2015. <a href="http://www.ariadne-infrastructure.eu/Resources/PeriodO/documentation">http://www.ariadne-infrastructure.eu/Resources/PeriodO/documentation</a> .
URL	<a href="http://www.ariadne-infrastructure.eu/Resources/PeriodO/documentation">http://www.ariadne-infrastructure.eu/Resources/PeriodO/documentation</a>
Year published	2015
Creators	ARIADNE Consortium

## Editorial note

Periodizations gathered from ARIADNE partners on the national level in a series of EU countries, as well as periodizations from some non-EU Fasti Online contributors. Some of the definitions are derived from other PeriodO collections; where this is the case, a note has been included with the PeriodO URI of the definition from which it is derived.

Period list

JSON-LD

Turtle

CSV

Viewing 1 - 25 of 659

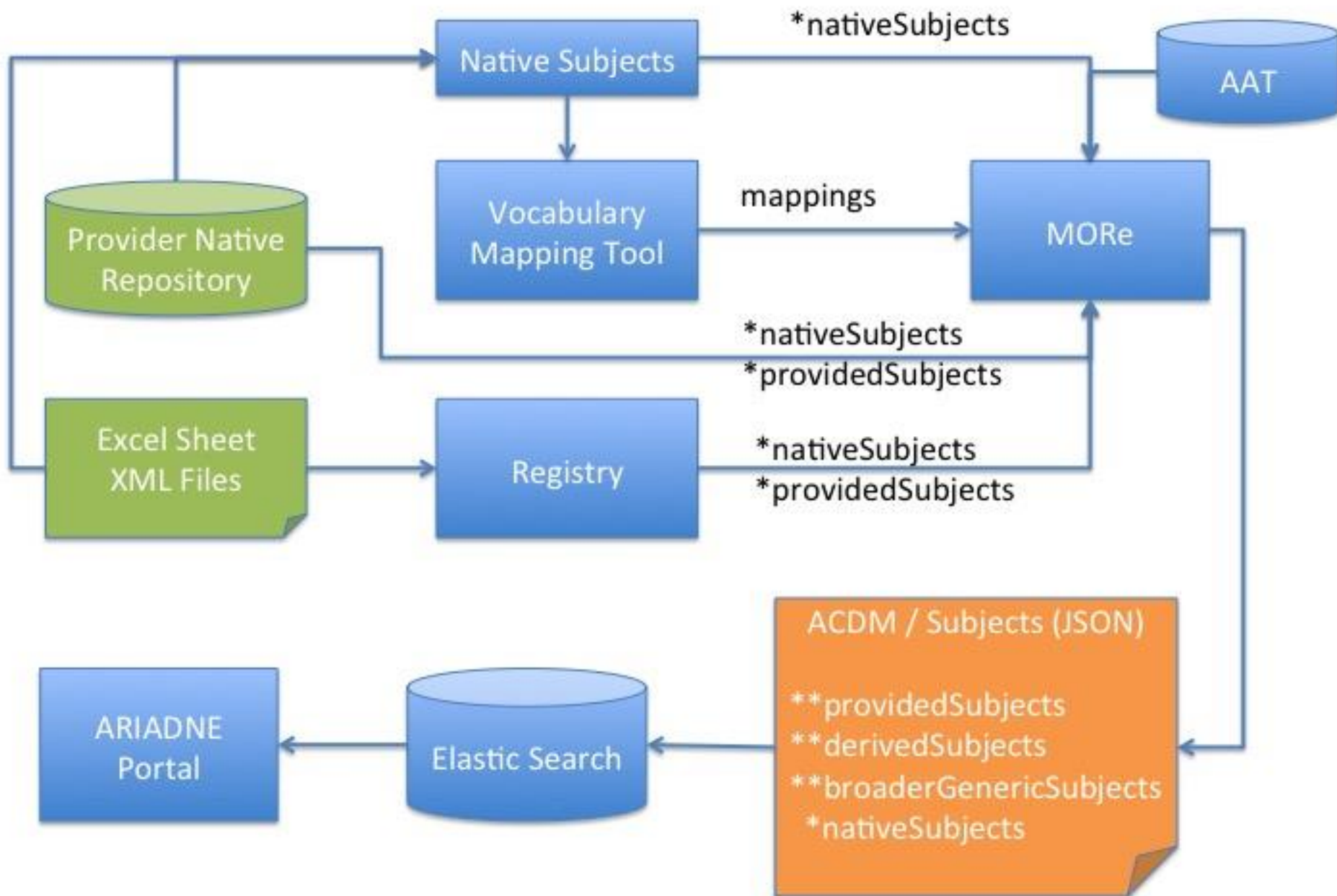
Show 25 periods at a time.

Previous

123...2627

Next

▲ Label	Earliest start	Latest stop
20th Century	1901	2000
A Doua Epocă a Fierului	-450	-107
Akrotiri	-9300	-8801
Alta Edad Media	400	699



# Conclusions

- Digital data preservation has a cost – but data collection / data loss is more expensive
- Digital data is re-used – and studies show research and economic return
- Sustainable business models for data archives are possible
- New models for publication/ dissemination
- Need to work at European level
- Data standards work is fundamental
- But have to accept that data aggregation involves some information loss



## Thank-you for listening



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E-mail: [julian.richards@york.ac.uk](mailto:julian.richards@york.ac.uk)

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