Re∽member
创忆遗产 数字经济
Heritage-driven Economy
2018 / 9 / 12 - 9 /16 北京 · 清华大学 Tsinghua University, Beijing
CHCD2018 SYMPOSIUM
The 5th International Symposium on Cultural Heritage Conservation and Digitization
第五届文化遗产保护与数字化国际论坛

Research Infrastructures for Digital Heritage: Challenges of Preservation and Access

Professor Julian Richards／University of York, UK

Lecture outline

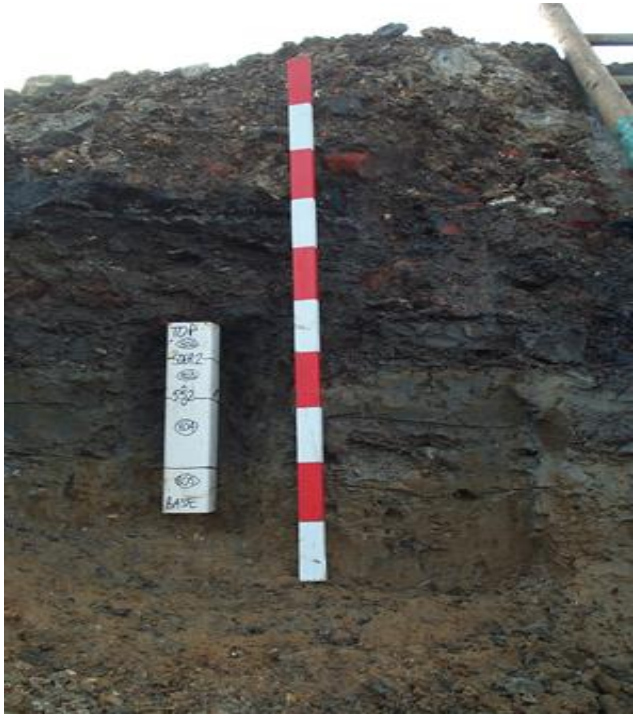
- Challenges of Preservation and Access:
  - Digital Preservation
  - Resource Discovery and Interoperability – finding & joining up fragmented and diverse data sets
  - Political (& Economic) Context of Open Data
- Research Infrastructures:
  - UK: Archaeology Data Service
  - Europe: ARIADNE, E-RIHS

Digital Preservation Challenges:

- Digital data are fragile
- They are often still archived as objects rather than computerised information
- Defining digital data standards
- What are the significant properties of our data?

Digital Data and Archaeology

- Archaeology is **destructive**
- Comprehensive records of field work are imperative



Media Types

- Experience rapid change

3.5" Floppy

xD Picture Card

QIC DC600

DC4_120

9-Track Reel

Punch Tape

Rectangular Hole Punch Card

IBM 3480

DVD-ROM

8" Floppy

Floptical Disk

G2000 Tape

CD-ROM

5.25" Floppy

Sparq Disk Cartridge

4mm Tape

Smart Media

Travan

5.25" Optical Disk

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Memory Stick

8mmD-eight

Cassette tape

Click!

MultiMedia Card

12" Optical Disk

Jaz Disk

SD Memory Card

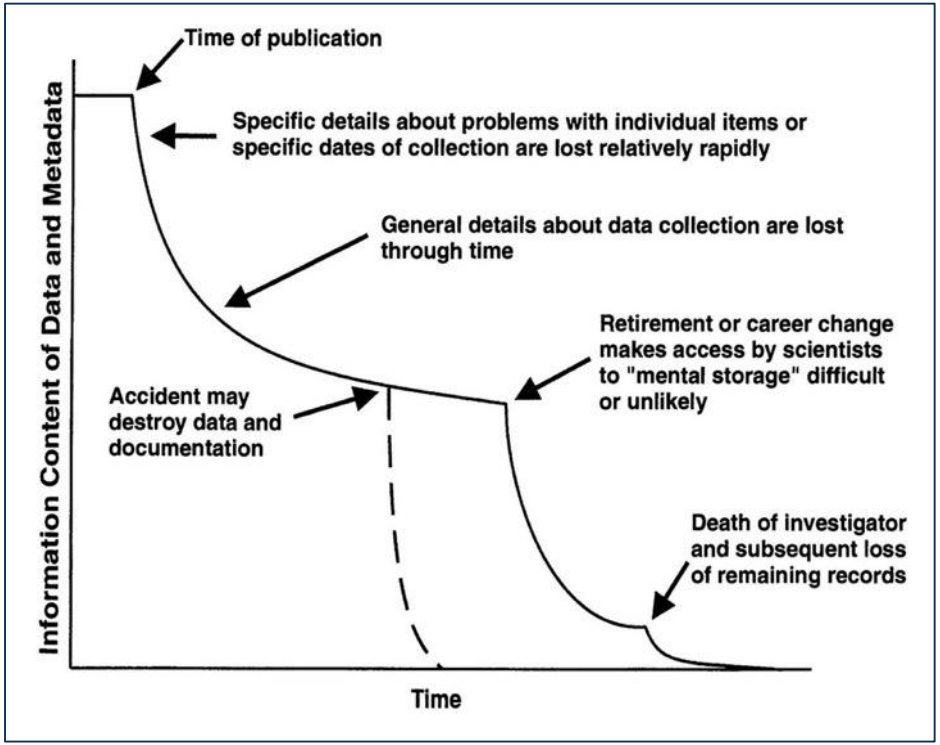
Zip Disk

DLT Tape

CompactFlash

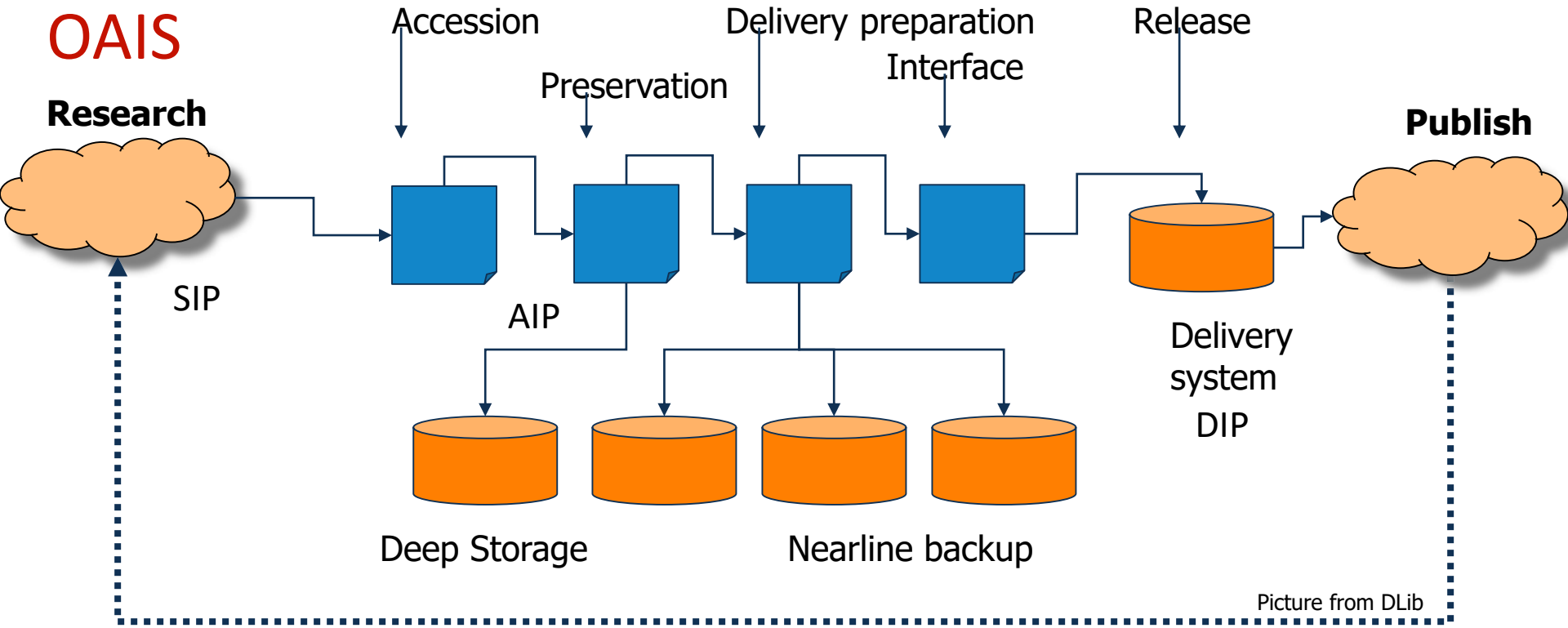
Ditto Max

Information Entropy



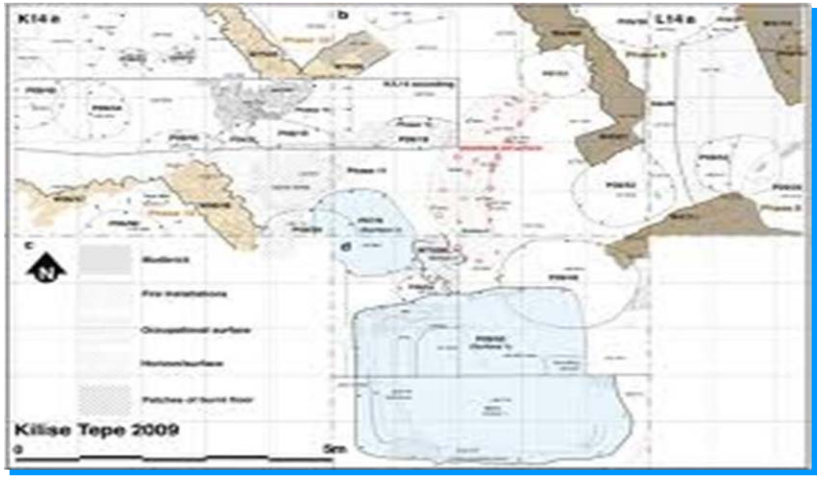
Michener, W.K., Brunt, J.W., Hell, J.J., Kirchner, T.B. and Stafford, S.G. 1997. Nongeospatial Metadata for the Ecological Sciences. Ecological Applications. 7: 330-342.

Trusted Digital Repositories: NASA - Open Archival Information System

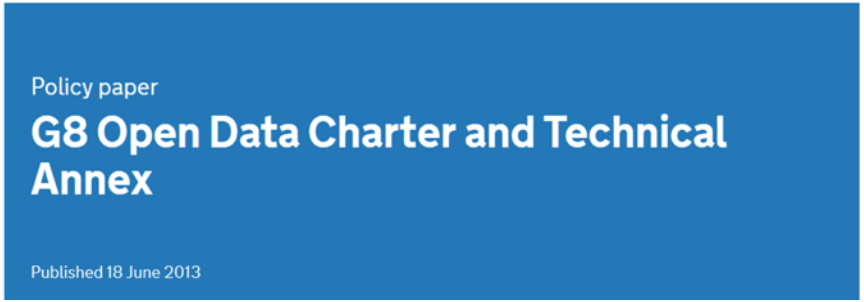


Digital Data and Archaeology

- Published data are limited
- Majority of data recorded in grey literature
- Data are not easily searchable
- Access to data is difficult



G8 Open Data Charter 2013

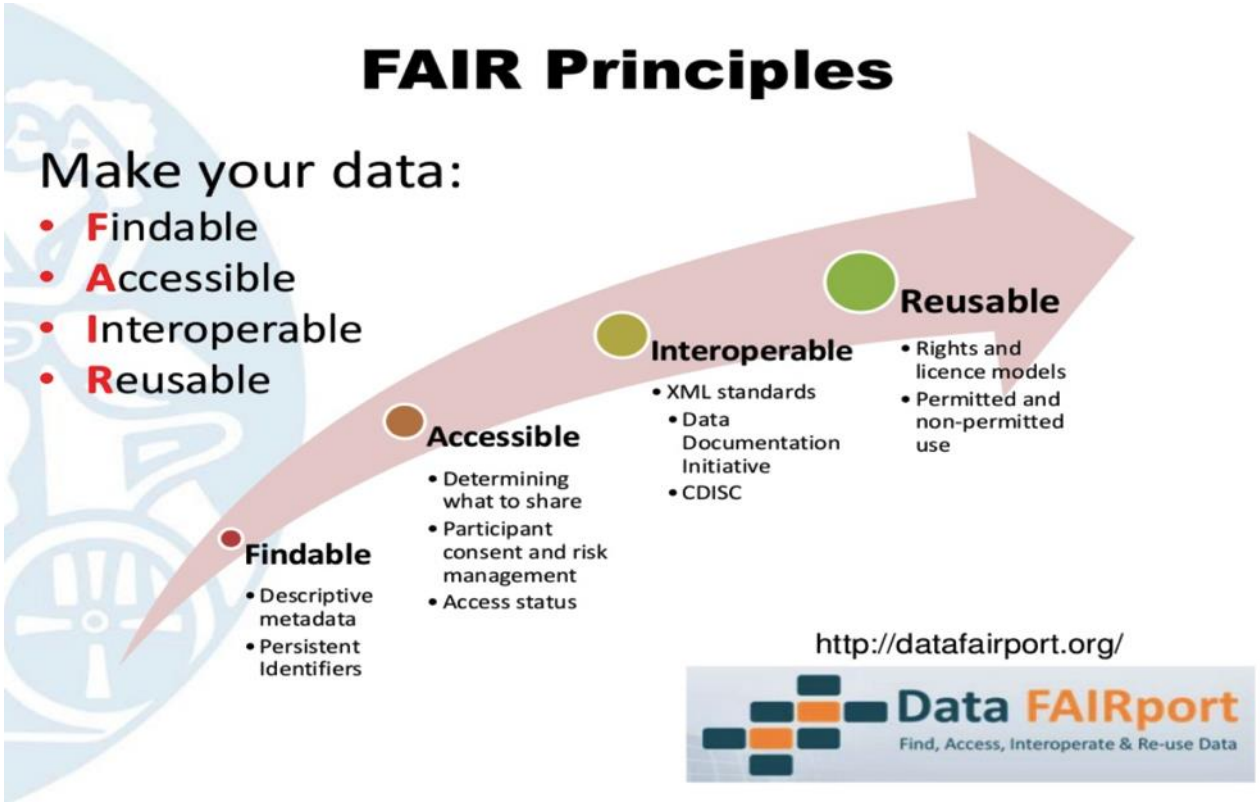


“a new era in which people can use open data to generate insights, ideas, and services to create a better world for all.”

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

FAIR principles

- 2014: Leiden workshop
- Sept 2017: endorsed by G7 Science Ministers, Turin



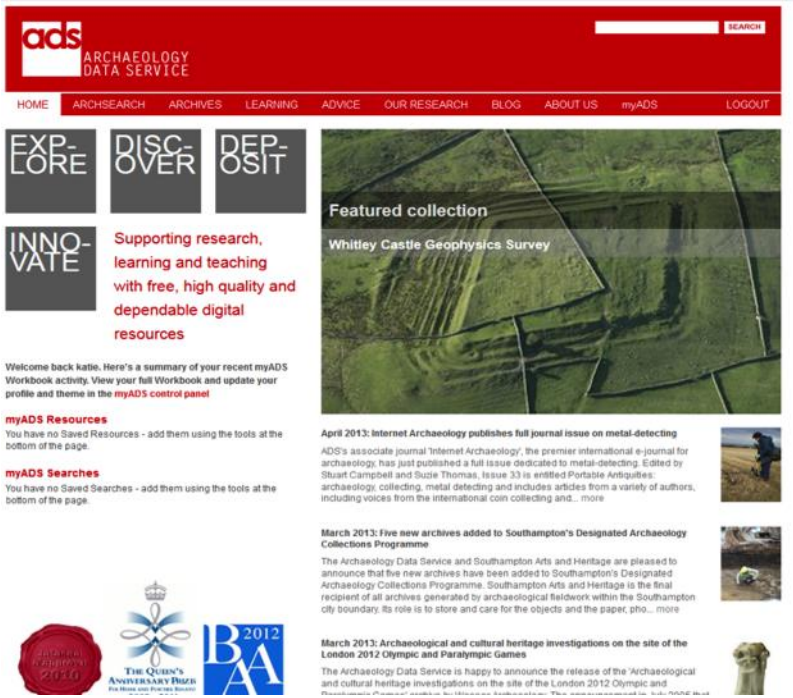
The Archaeology Data Service

- Set up in 1996
- Based within the University of York
- 12 staff
- Business model based upon charging policy
- Trusted Digital Repository: Data Seal of Approval
- Received Digital Preservation Coalition's Decennial Award in 2012
- Oct 2016: 12Tb; 2,143,497 **files;** 21,327 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



Guides to Good Practice

- GIS
- CAD
- Geophysics
- Aerial photography and Remote Sensing
- Marine survey
- Laser scanning
- Photogrammetry
- UAV survey

Archaeology Data Service / Digital Antiquity
Guides to Good Practice

Log in

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- Full Table of Contents
- **Digital Archiving**
- About these Guidelines
- How to use these Guides
- What is Digital Archiving?
- Archival Strategies
- **The Project Lifecycle**
- Planning for the Creation of Digital Data
- Project Documentation
- Project Metadata
- Data Selection: Preservation Intervention Points
- The Project Archive: Storage and Dissemination
- Copyright and Intellectual Property Rights
- **Basic Components**
- Documents and Texts

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

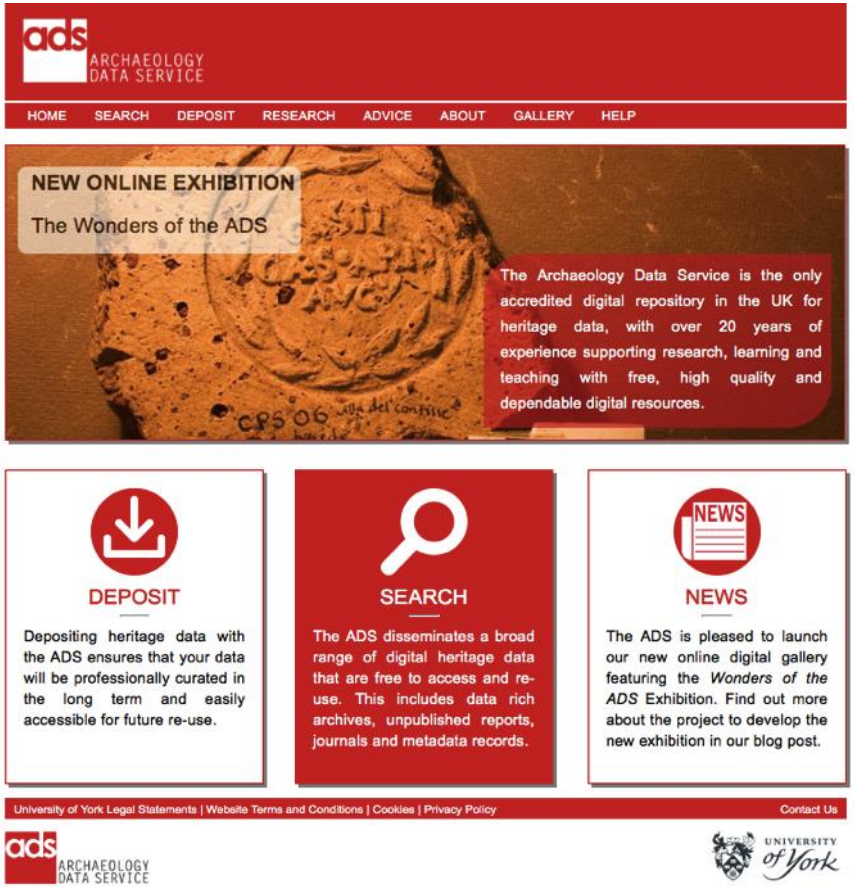
ARCHAEOLOGY DATA SERVICE

tDAR The Digital Archaeological Record
A SERVICE OF DIGITAL ANTIQUITY

The Andrew W. Mellon Foundation ENGLISH HERITAGE VENUS ace

Digital Access Challenges:

- Finding and joining up fragmented datasets
- Interoperability
- Lack of data standards
- Need for controlled vocabularies
- Permanence – Digital Object Identifiers (DOIs)
- Identifying quality data
- Making heritage data visible for the creative sector


ads
ARCHAEOLOGY
DATA SERVICE
HOME SEARCH DEPOSIT RESEARCH ADVICE ABOUT GALLERY HELP
NEW ONLINE EXHIBITION
The Wonders of the ADS
The Archaeology Data Service is the only accredited digital repository in the UK for heritage data, with over 20 years of experience supporting research, learning and teaching with free, high quality and dependable digital resources.
DEPOSIT
Depositing heritage data with the ADS ensures that your data will be professionally curated in the long term and easily accessible for future re-use.
SEARCH
The ADS disseminates a broad range of digital heritage data that are free to access and re-use. This includes data rich archives, unpublished reports, journals and metadata records.
NEWS
NEWS
The ADS is pleased to launch our new online digital gallery featuring the *Wonders of the ADS* Exhibition. Find out more about the project to develop the new exhibition in our blog post.
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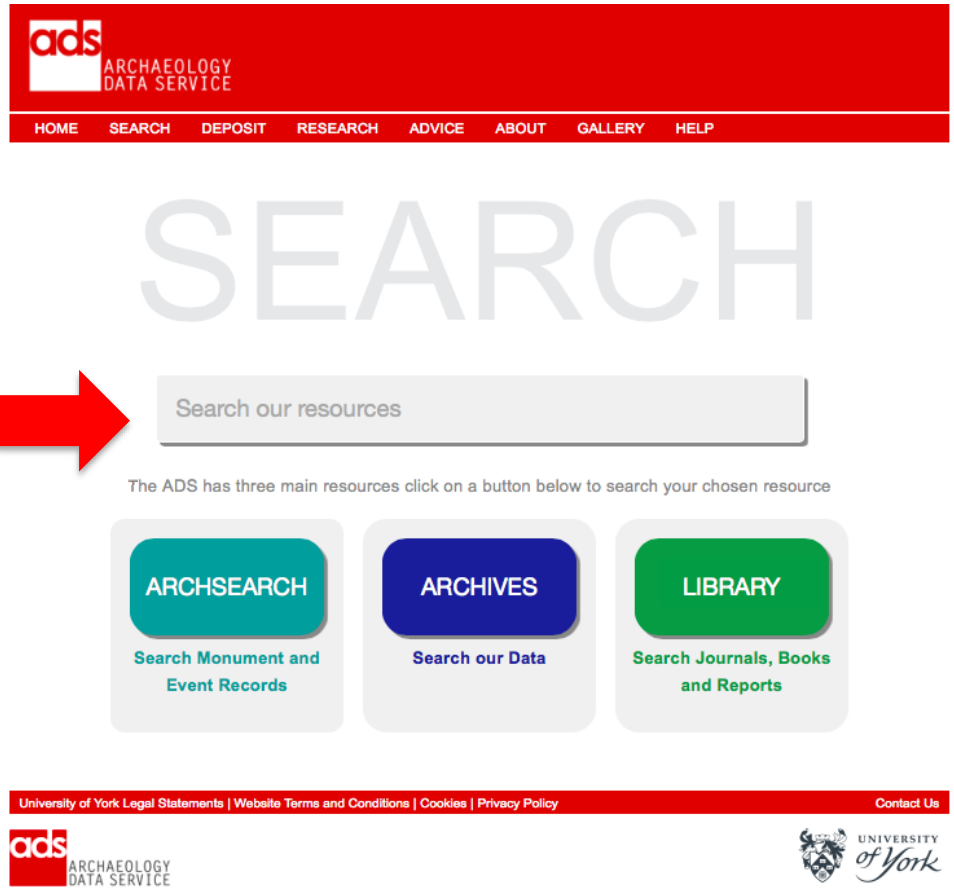
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The ADS has three main resources click on a button below to search your chosen resource
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Search Monument and Event Records
ARCHIVES
Search our Data
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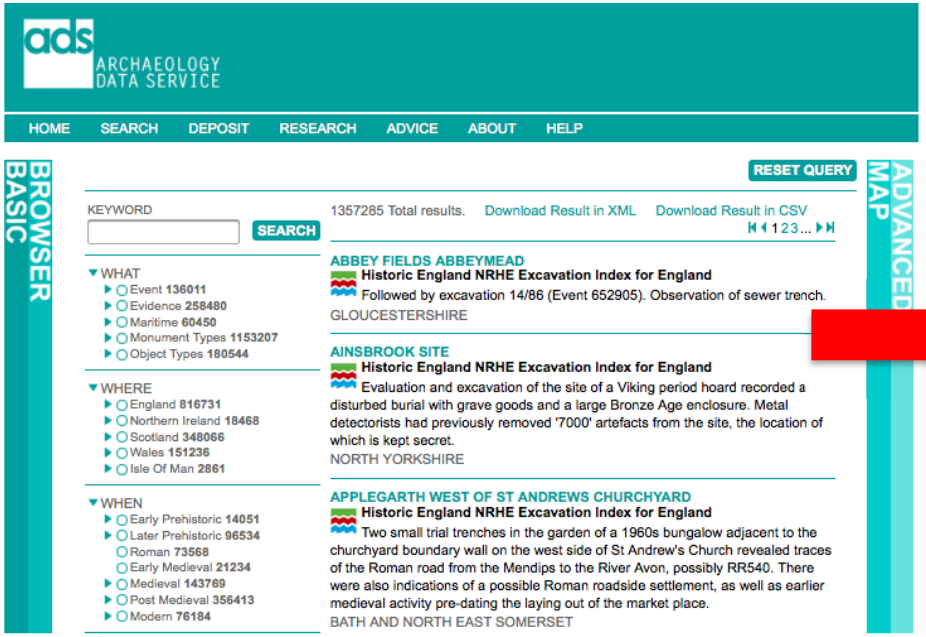
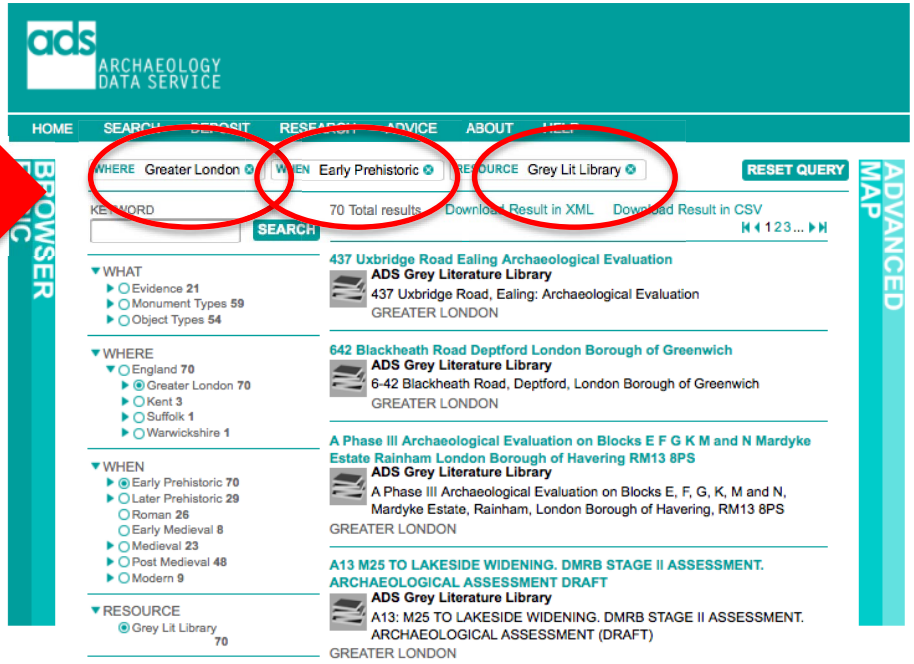
1.35m records to 70 reports in 3 clicks





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BROWSER BASIC

ADS Grey Literature Library

302

Go to Grey Lit Report

View historic maps

Assessment of an Archaeological Excavation at 551 Old Kent Road, London Borough of Southwark

Description: Assessment of an Archaeological Excavation at 551 Old Kent Road, London Borough of Southwark

Country: ENGLAND

County: GREATER LONDON

District: SOUTHWARK

Parish: SOUTHWARK

Named Location: 551 Old Kent Road

Grid reference: TQ35017740

Map reference: [EPSG:27700] 535010, 177400

Period/Subject: ROMAN - AMPHORA , ROMAN - BURNT BONE , MESOLITHIC - BURNT FLINT , MESOLITHIC - FLAKES , POST MEDIEVAL - POTTERY , POST MEDIEVAL - SLAG , POST MEDIEVAL - TOBACCO PIPE , UNCERTAIN - DITCHES , MEDIEVAL - MARSH , POST MEDIEVAL - POST HOLE , ROMAN - POST HOLE

Identifiers:

ADVANCED MAP

ads ARCHAEOLOGY DATA SERVICE

HOME SEARCH DEPOSIT RESEARCH ADVICE ABOUT HELP LOGIN

Library Home > Browse Series > Series > Report (in Series)

Grosso, I., (2008). *Assessment of an Archaeological Excavation at 551 Old Kent Road, London Borough of Southwark*. Brockley: Pre-Construct Archaeology Limited.

Title:	Assessment of an Archaeological Excavation at 551 Old Kent Road, London Borough of Southwark
Series:	Pre-Construct Archaeology Ltd (London) unpublished report series
Downloads:	*precons1-38606_1.pdf (0 MB)* : Download
DOI	https://doi.org/10.5284/1016952
Publication Type:	Report (in Series)
Abstract:	An archaeological field excavation followed an earlier evaluation of the site. The earlier evaluation of the site demonstrated archaeological preservation in trench 1 and further archaeological work was undertaken with the excavation of trenches 3 and 4. Natural sandy brick earth was found across the excavation area at a level of 0.65m OD to the south in trench 3 and gradually sloping downwards, at a level of 0.20m OD, to the north in trench 4. An E-W prehistoric ditch, already observed during the initial evaluation, truncated the natural sandy brick earth and presented a terminus to the west in trench 3. Another possible curvilinear prehistoric cut feature was observed just next to the ditch but unfortunately no cultural material was found in its fill. A peat layer, sealing the prehistoric cut features, contained a single cattle bone and few burnt flints. Although the near absence of cultural material, this layer, occasionally disturbed by rooting, indicates that the study site was marshy, marginal land possibly during the Saxon and Medieval periods. The post medieval activity on the study site was represented by two postholes sealed by a sequence of homogenous clay layers, largely devoid of cultural material, indicating the site had been largely flooded and abandoned in the post-medieval period until the beginning of the ground works associated with the construction of the Georgian terrace house and of the N-S sewer to the west of the study site.
Author:	I Grosso
Publisher:	Pre-Construct Archaeology Limited

Location

ads ARCHAEOLOGY DATA SERVICE

HOME SEARCH DEPOSIT RESEARCH ADVICE ABOUT HELP

Star Carr and Lake Flixton archives

University of York, 2018

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UNIVERSITY of York

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Fax: 01904 323902

Send e-mail enquiry

Resource identifiers

ADS Collection: 1253
DOI: https://doi.org/10.5284/1041580
How to cite using this DOI

MANCHESTER 1824

Downloads

Please select the section of the archive you wish to view from the options below.

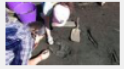
Video | Photos | Site records | Plans | Sections | Photogrammetry | GIS | Specialist data | Reports |

Video

The archive videos have been zipped for dissemination. Advice on how to download and view on your own machine is provided below. In addition, some records also have a link to a streamed version on the Star Carr project Youtube channel.

Star Carr (2015): video metadata	CSV	13 Kb

(Using multi-volume ZIP files)

PREVIEW	Student groups excavating areas of dryland and wetland (sc15_video_01) Youtube version	ZIP	91 Mb
 PREVIEW	RK excavating animal bone in woodpeat (sc15_video_02) Youtube version	ZIP	61 Mb
PREVIEW	Student groups excavating in wetland areas (sc15_video_03) Youtube version	ZIP	88 Mb
PREVIEW	Student groups excavating in dryland (sc15_video_04) Youtube version	ZIP	81 Mb
PREVIEW	CR excavating in dryland area (sc15_video_05) Youtube version	ZIP	69 Mb

ads ARCHAEOLOGY DATA SERVICE

HOME SEARCH DEPOSIT RESEARCH ADVICE ABOUT HELP

Star Carr Archives Project

Nicky Milner, Hayley Saul, Ben Elliott, 2013

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ENGLISH HERITAGE

UNIVERSITY of York

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Fax: 01904 323902

Send e-mail enquiry

Resource identifiers

ADS Collection: 1335
DOI: https://doi.org/10.5284/1019856
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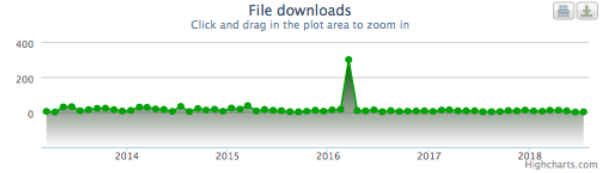
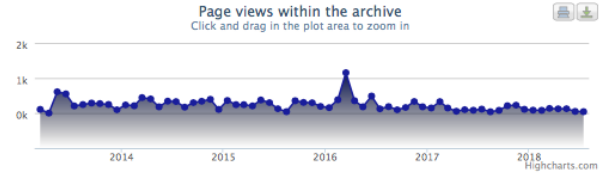


A download is a click on a link to something other than a web page, file extensions include: csv, doc, docx, gif, jar, jpg, jpeg, mp3, mp4, mov, odb, odt, pdf, png, ppt, pptx, txt, wav, wma, wmv, wpd, xls, xlsx, xml, zip but this is not an exhaustive list.

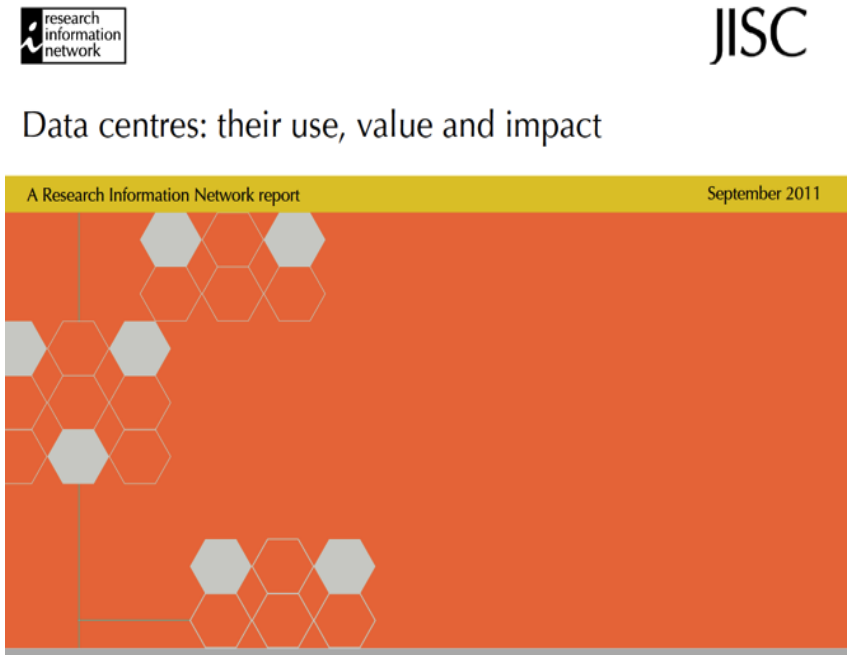


Pages viewed is the number of HTML pages or scripts that visitors have looked at. A "page" is a hit that is not an image, JavaScript or CSS file and which was not loaded by a search engine robot.

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



Economic Impact of ADS

Beagrie/ Houghton 2014:

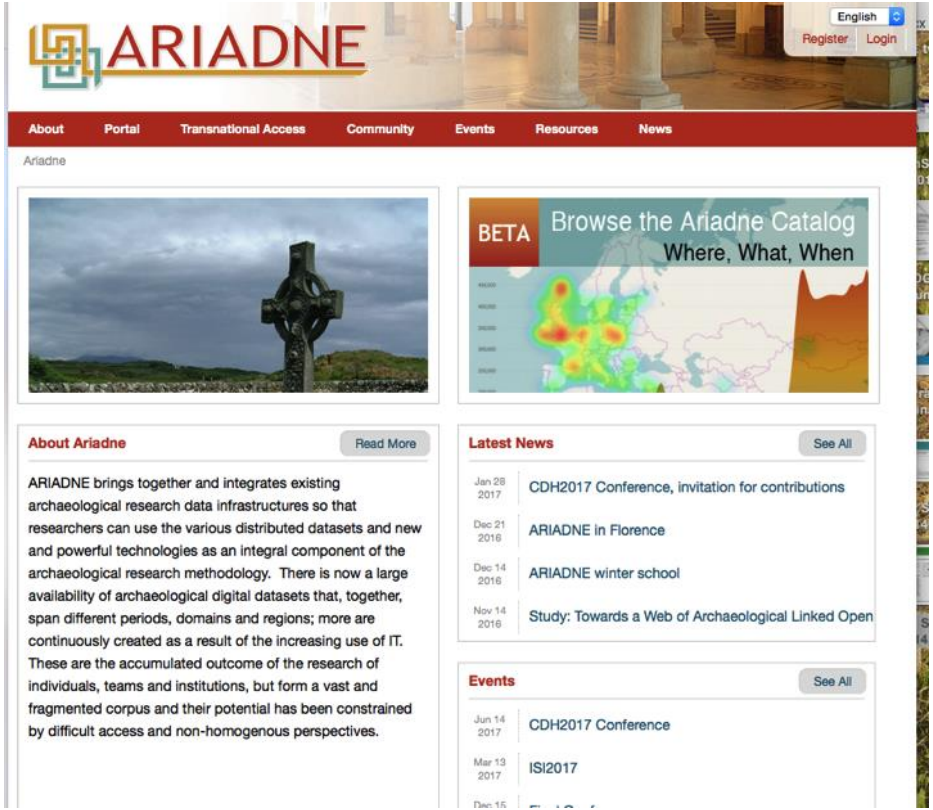
- Investment value £1.2m pa
  - £698,000 pa funding from sponsors
  - £465,000 pa indirectly contributed by depositors
- Direct use value £1.4m pa
- But efficiency impacts £13m-£58m per annum
- Research efficiency gains = 7 hours per person per week
- **£1 investment provides up to £8.30 return**

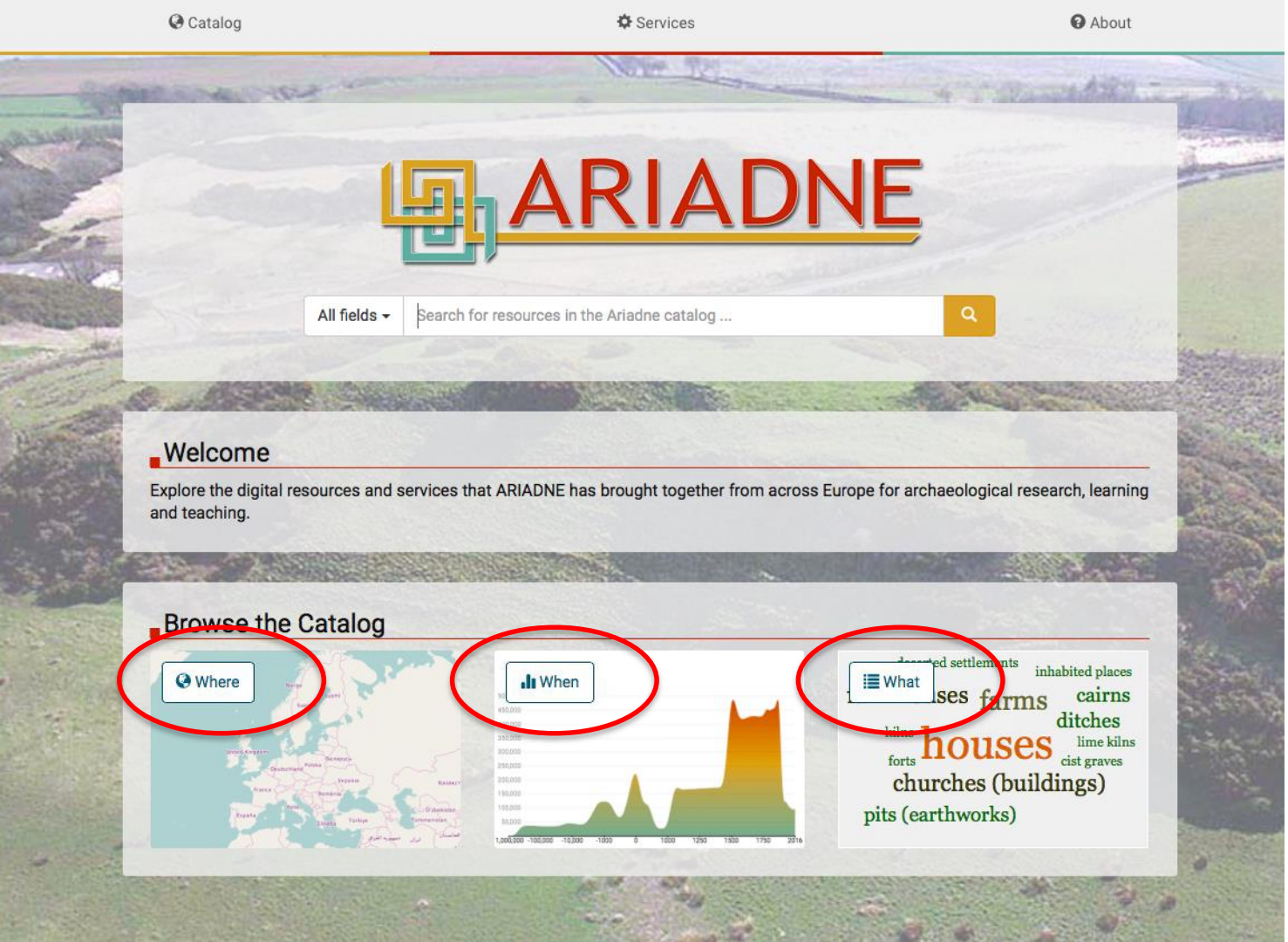
Charles Beagrie

JISC

CENTRE FOR STRATEGIC ECONOMIC STUDIES

European Research Infrastructures



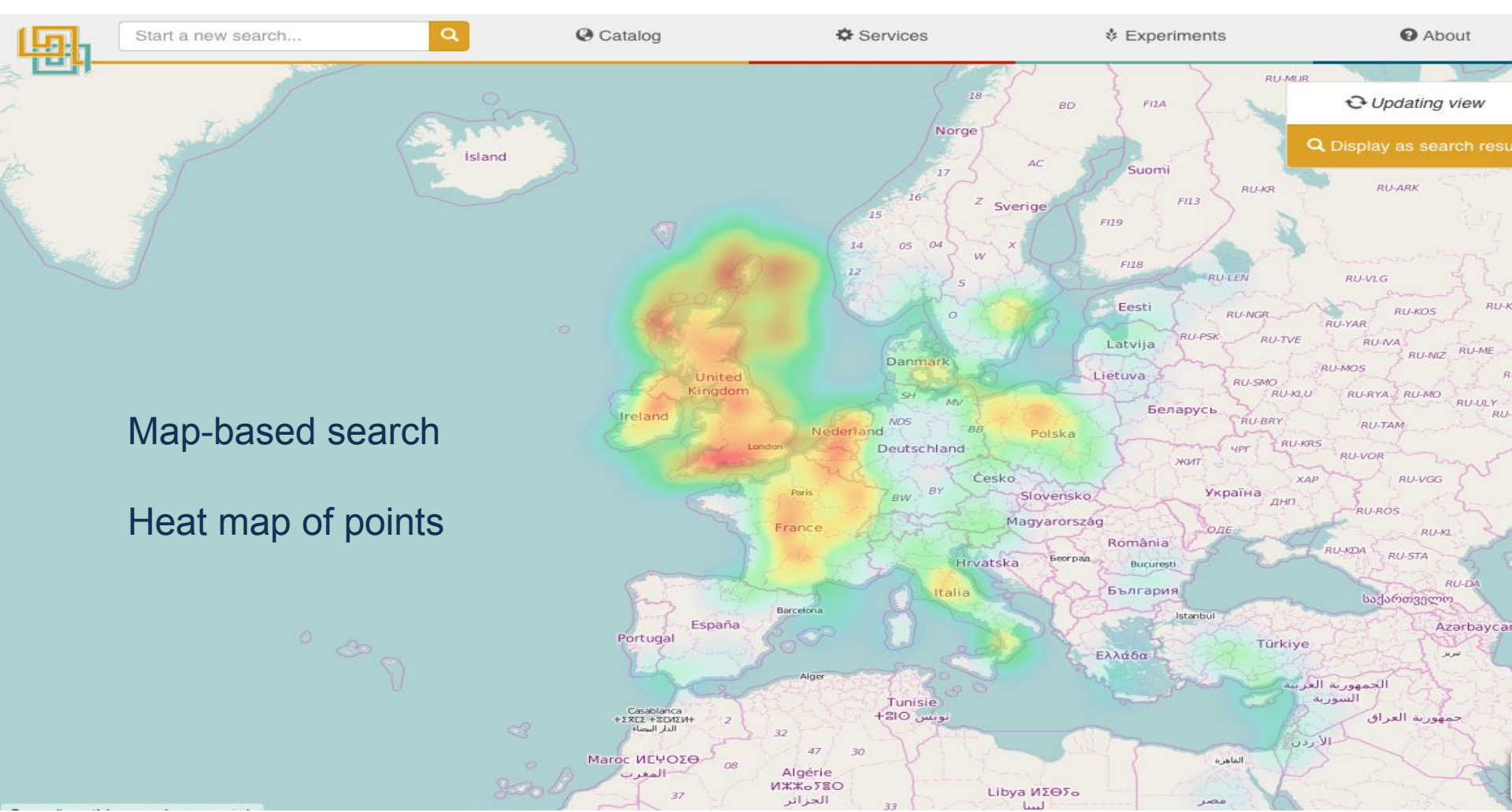


Searching 1.9m digital resources

18 countries

Search by:
What
When
Where

Multilingual translation of subject terms


Start a new search...
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Updating view
Display as search resu
Map-based search
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Sverige
Suomi
Island
Eesti
Latvija
Lietuva
Беларусь
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Slovensko
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România
Hrvatska
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España
Portugal
Україна
България
Ελλάδα
Türkiye
Tunisie
Maroc
Algérie
Libya
Barcelona
Paris
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Беларусь

Start a new search...

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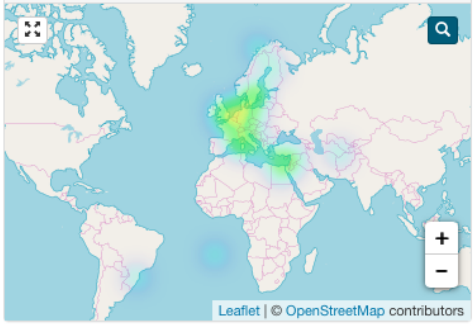
Current search

no 1 poultry

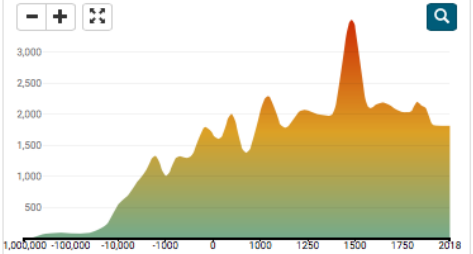
Filters

Resource type: Fieldwork archives

Where



When



Total results: 6,924

« 1 2 3 4 5 »

Order By Score

Number 1 Poultry (ONE 94)

Type: Fieldwork archives Publisher: Archaeology Data Service

The site of 1 Poultry is located near the Bank of England, in the heart of the City of London

House. 1 Poultry lies immediately west of the point where the main east-west road through Roman London

Evaluation at Land off Chapel Lane, Upton Snodsbury, Worcestershire

Type: Fieldwork archives Publisher: Archaeology Data Service

Lane, Upton Snodsbury, Worcestershire. A total of three trenches were excavated. No features or

deposits of archaeological interest were observed during groundworks, and no artefactual material was recovered

210 Bassett Green Road (SOU1647) (foundati1-177914)

Type: Fieldwork archives Publisher: Archaeology Data Service

a condition of planning permission for the redevelopment of the site. No archaeological finds or deposits were present within the evaluated areas.

Whitchurch Reservoir, Whitchurch

Type: Fieldwork archives Publisher: Archaeology Data Service

infrastructure. No archaeological deposits or features were encountered within the site and no archaeologically significant artefacts were noted in the excavated spoil./n

GIS-material for the archaeological project: Stone Age finds within Kulla 1:1

Type: Fieldwork archives Publisher: Swedish National Data Service

character within Object 1, no prehistoric or historical features were found. The location of Object 2

Filter by type of resource

← Back to search results

Number 1 Poultry (ONE 94)

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

skeleton components (animal components) coins (money) combs (grooming tools) doors human remains animal components mosaics (visual works) pots (containers) rings (object genres) whorls pipes (smoking equipment) vessels (containers) writing boards (tablets) buildings (structures) public buildings commercial complexes drains hypocausts insulae

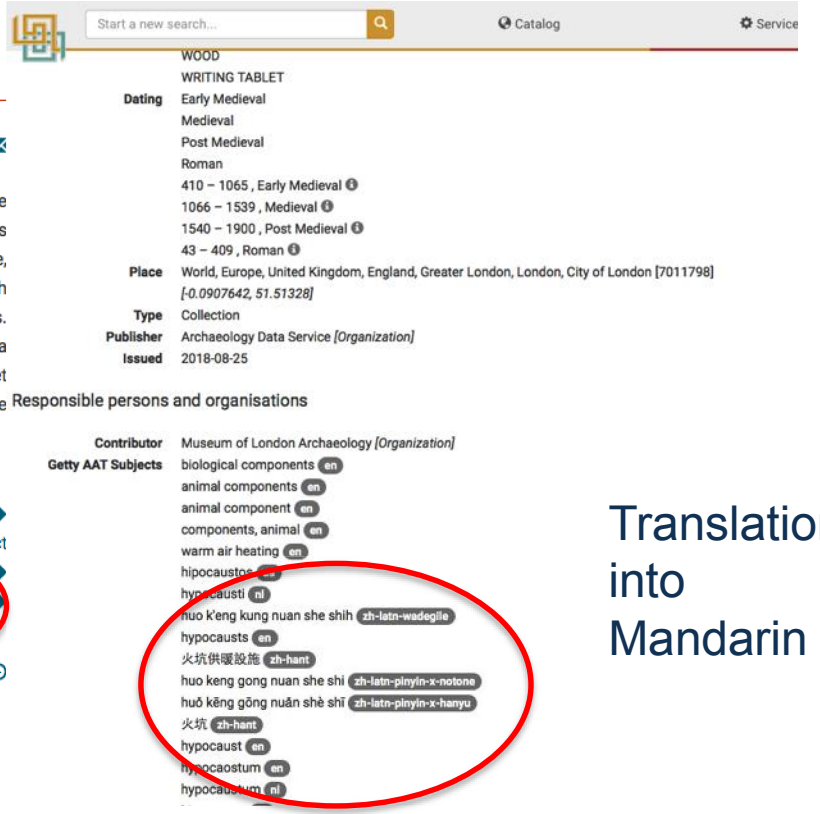
Early Medieval Medieval Post Medieval Roman Early Medieval Medieval Post Medieval Roman

World, Europe, United Kingdom, England, Greater London, London, City of London [7011798]

Metadata

ARIADNE ID	19138479
Original ID	1297
Language	English
Resource type	Fieldwork archives
Subject	skeleton components (animal components)

Getty AAT subject terms



Translation into Mandarin

Number 1 Poultry (ONE 94)

Museum of London Archaeology, 2013

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MOLA MUSEUM OF LONDON ARCHAEOLOGY

ENGLISH HERITAGE

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Julian Hill
Post-Excavation Project Manager
Museum of London Archaeology
Mortimer Wheeler House
46 Eagle Wharf Road
London
N1 7ED
UK
Tel: 020 7410 2254

Send e-mail enquiry

Resource identifiers

ADS Collection: 1297
DOI:https://doi.org/10.5284/1020244

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 ma road is the earliest, securely dated structure yet known from Londinium, and a pottery shop, destroye the Boudican revolt, gives a snapshot of life in AD 60/61. A 2nd-century AD writing tablet preserves th evidence for the sale of a slave found in Britain to date, while the 3rd- and 4th-century AD buildings o site provide a rare demonstration of the continuities and changes that occurred in Roman urban life.

Poultry occupied a prominent position at the eastern end of Cheapside, the city's principal medieval n street; integrating documentary evidence with the archaeological record has provided an outstandingl detailed account of this area. Reoccupation of the site in the later 10th century AD began with the construction of scattered sunken-floored buildings; a more regular pattern of settlement, characterise narrow-fronted timber buildings along the roadsides, had developed by the early 11th century. Occup became progressively denser up to the 13th century, when large stone-built houses began to be constructed in previously open areas behind the street frontages. Metalworking evidence from the excavated buildings indicates early economic activity, corresponding with later documentary evidence smiths, ironmongers and other metalworkers in the area. The Great Conduit, the City's first piped wat supply, was established in the 13th century; its vaulted lower chamber survived at the junction of Bucklersbury and Cheapside.

This project was published following a joint venture between English Heritage and Museum of Londor Archaeology as:

- Hill, J. and Rowsome, P. 2011: Roman London and the Walbrook stream crossing: excavations at 1 Poultry and vicinity, City of London. MoLA Monograph Series 37.ISBN 978-1-907586-04-0.
- Burch, M., Treveil, P. with Keene,D. 2011: The development of early medieval and later Poultry and

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Number 1 Poultry (ONE 94)

Museum of London Archaeology, 2013

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MOLA MUSEUM OF LONDON ARCHAEOLOGY

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Downloads

The downloads are split into separate sections for each site (see overview for details). Please note that each site has separate file metadata, however conventions and codes for CAD and spreadsheet files are common to all sites and are presented as overarching metadata below. The concordance document gives further details of the relationships between ONE94 and the satelite sites.

Concordance document	PDF	623 Kb
MoLA CAD layer conventions	PDF	78 Kb
Spreadsheet conventions	CSV	40 Kb

ONE94 | BOL94 | BUC87 | CID90 | DOC87 | LOM88 | BRD88 | KNG85 | LHY88 | SON85 | MHO92 | PLY87

ONE 94 (1 Poultry)

File Metadata ONE94	TXT	11 Kb

Spreadsheet files

ONE94 abonedata01	CSV	1.25 Mb
ONE94 anbntab07	CSV	1.29 Mb
ONE94 anbntab08	CSV	39 Kb
ONE94 anbntab09	CSV	852 Kb
ONE94 anbntab10	CSV	874 Kb
ONE94 biblio01	CSV	6 Kb
ONE94 bmdata01	CSV	213 Kb
ONE94 botdata01	CSV	49 Kb
ONE94 botreptab02	CSV	13 Kb
ONE94 botreptab03	CSV	17 Kb
ONE94 botreptab04	CSV	9 Kb
ONE94 botreptab05	CSV	10 Kb
ONE94 botreptab06	CSV	13 Kb
ONE94 botreptab07	CSV	13 Kb

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
- Importance of research infrastructures for preservation and access
- Need to work at international level

Thank-you for listening

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