

Making Archaeology FAIR: in the ADS and ARIADNE



Julian Richards, ADS
University of York, UK

FAIR Heritage

Digital Methods, Scholarly Editing and
Tools for Cultural and Natural Heritage



LE STUDIUM
Loire Valley
Institute for Advanced Studies



FAIR principles

Make your data:

- **F**indable
- **A**ccessible
- **I**nteroperable
- **R**eusable

Findable

- Descriptive metadata
- Persistent Identifiers

Accessible

- Determining what to share
- Participant consent and risk management
- Access status

Interoperable

- XML standards
- Data Documentation Initiative
- CDISC

Reusable

- Rights and licence models
- Permitted and non-permitted use

<http://datafairport.org/>



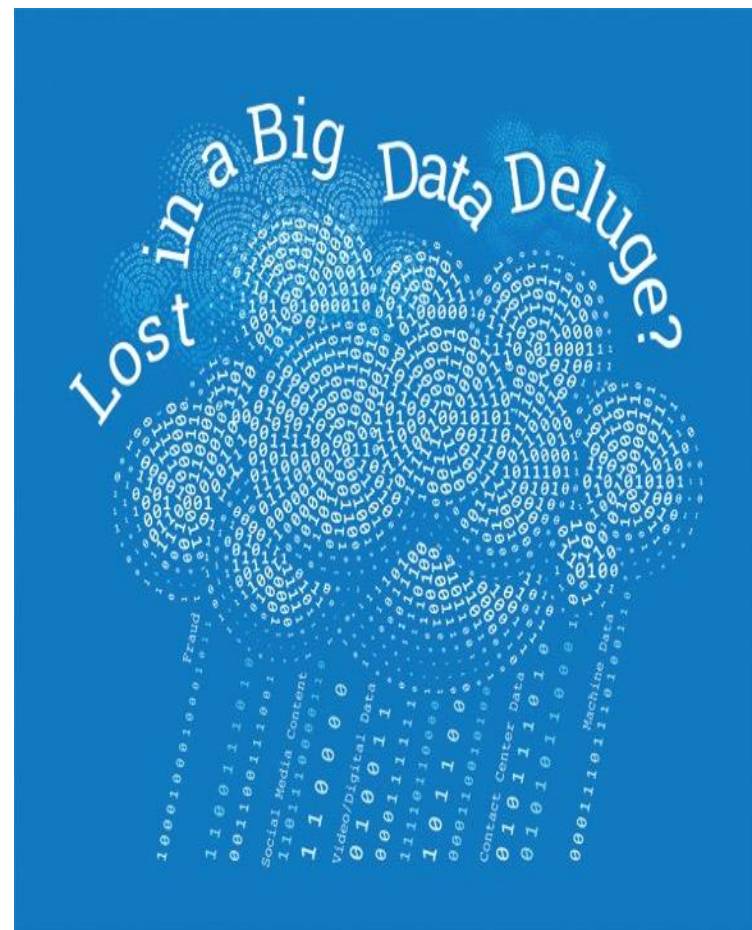
In practice....

- Being FAIR when archaeological information is MEAN:
 - Miscellaneous
 - Exceptional
 - Arbitrary
 - Nonconformist

(Isto Huvila, Centre for Digital Heritage conference, University of Leiden 2017)

Digital Access Challenges

- Finding and joining up fragmented datasets
- Interoperability across datasets
- Lack of suitable data standards
- Need for controlled vocabularies and ontologies
- Permanence – Digital Object Identifiers (DOIs)
- Identifying quality data
- Metadata vs paradata
- Lack of clear rights statements



ARIADNE European User Needs Research

- 94% of researchers agreed that it is important that datasets are available online in an uncomplicated way.
- 87% of researchers agreed that they often do not know what research data is available because it is stored in so many different places and databases.
- 74% of researchers consider it important to have easy access to international datasets.
- The perceived lack of professional recognition and reward for sharing data is a barrier to data sharing for 72% of researchers.
- A lack of institutional or international repositories for archaeological data sets was a barrier to data sharing for 60% of researchers.



Professional ethics: testing and re-use

INTEGRAL to archaeological data creation methodology is the understanding that the material archived will be available to others to reuse, so that:

- Interpretations can be shown to be underpinned by formally recorded, rigorous and ‘complete’ data
- Interpretations can be challenged
- Further interpretations can be made
- Further analysis can be made (e.g. with new techniques), again leading to new interpretation

The Archaeology Data Service

- University of York, 1996 - present
- Shared UK digital research infrastructure
- Mandated digital archive for UK research councils and Historic England etc
- 14 staff
- Business model based upon charging policy
- Open Access data:
 - 1.4m records for archaeology of UK
 - > 60,000 fieldwork reports
 - > 1800 full project digital archives
 - 10Tb; 2,054,846 **files**; 18,505 recorded **processes**



ads ARCHAEOLOGY
DATA SERVICE

HOME SEARCH DEPOSIT RESEARCH ADVICE ABOUT GALLERY HELP

FEATURED COLLECTION

Isles of Scilly Designated Wrecks
Interpretation: The Wheel Wreck

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.

NEWS

CoreTrustSeal Certification

After lots of hard work the ADS is pleased to acknowledge the CoreTrustSeal Board has approved its application for CoreTrustSeal certification.

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

Are you visiting our website order to use marine data? If so would you mind taking a few minutes to answer the following questionnaire to assess the flow of marine data in the global economy?

ads ARCHAEOLOGY
DATA SERVICE

HOME SEARCH DEPOSIT RESEARCH ADVICE ABOUT GALLERY HELP

SEARCH

Search our resources

The ADS has three main resources click on a button below to search your chosen resource

ARCHSEARCH

Search Monument and
Event Records

ARCHIVES

Search our Data

LIBRARY

Search Journals, Books
and Reports

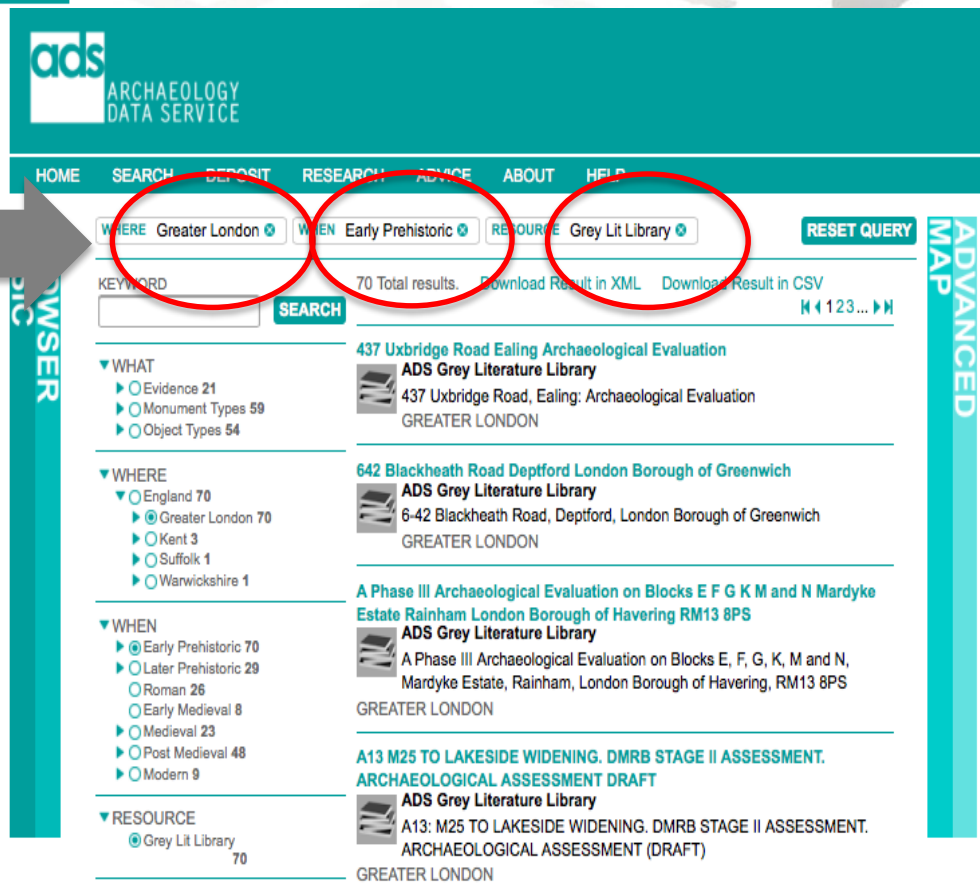
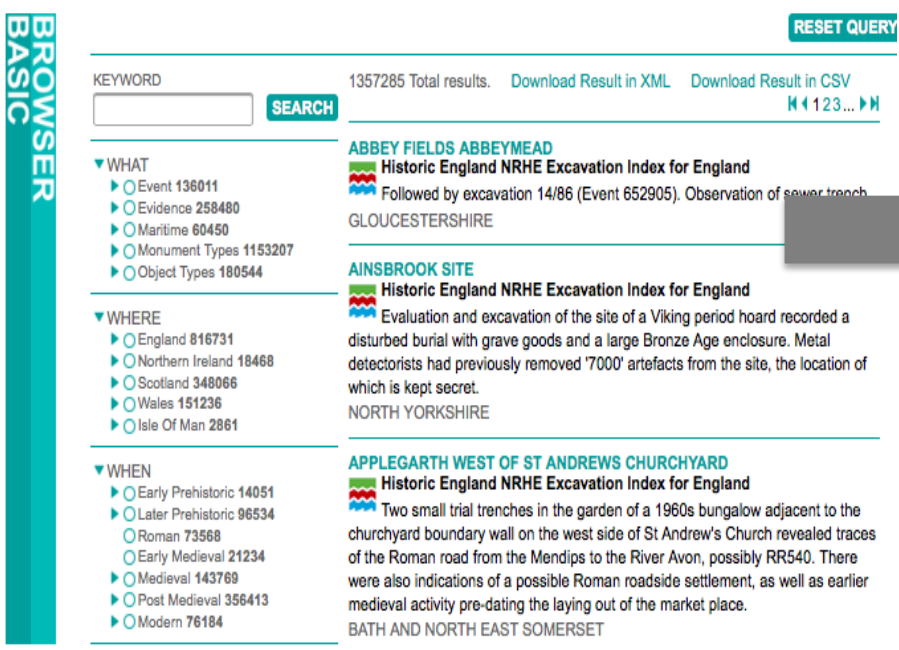
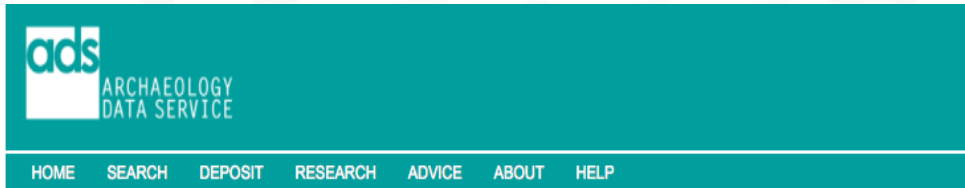
University of York Legal Statements | Website Terms and Conditions | Cookies | Privacy Policy | Accessibility

Contact Us

University of York Legal Statements | Website Terms and Conditions | Cookies | Privacy Policy

Contact Us

1.4m records to 70 reports in
3 mouse clicks



Download the report; cite by
Digital Object Identifier


ads
ARCHAEOLOGY
DATA SERVICE

HOME SEARCH DEPOSIT RESEARCH ADVICE ABOUT HELP

BROWSER BASIC

Ass Grey Literature Library
302

Go to Grey Lit Report



View historic maps

ADVANCE

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
Grid reference: TQ3
Map reference: [EP5]

Period/Subject: ROMAN
BURNT FLINT, MESOLITHIC
MIDDLE - SLAG, F
MIDDLE - MARSH

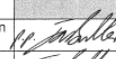

Identifiers:

DOCUMENT VERIFICATION

551 OLD KENT ROAD
LONDON SE1
LONDON BOROUGH OF SOUTHWARK

EXCAVATION

Quality Control

Pre-Construct Archaeology Limited		K1698	
	Name & Title	Signature	Date
Text Prepared by:	Ireneo Grosso		April 2008
Graphics Prepared by:	Hayley Baxter		April 2008
Graphics Checked by:	Josephine Brown		April 2008
Project Manager Sign-off:	Jon Butler		April 2008

Revision No.	Date	Checked	Approved

Pre-Construct Archaeology Ltd
Unit 54
Brockley Cross Business Centre
96 Endwell Road
London
SE4 2PD

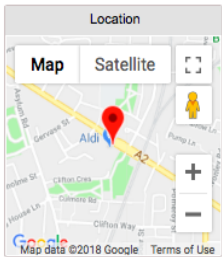
ads
ARCHAEOLOGY
DATA SERVICE

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.

Assessment of an Archaeological Excavation at 551 Old Kent Road, London Borough of Southwark
Pre-Construct Archaeology Ltd (London) unpublished report series
preconstf-38300_1.pdf (3 MB) : Download
https://doi.org/10.5284/1016952
Report (in Series)
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.
I Grosso
Pre-Construct Archaeology Limited



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

i Locations:	Site:	551 Old Kent Road
	Parish:	SOUTHWARK
	District:	SOUTHWARK
	County:	GREATER LONDON
	Country:	England
	Location - Auto Detected:	Watling Street
	Grid Reference:	535010, 177400 (Easting, Northing)
i Subjects / Periods:	Find:	Clay Tobacco Pipe Post Medieval
	Find:	Lithics Mesolithic
	Find:	Pottery Post Medieval
	Find:	Pottery Roman
	Monus:	Ditch Uncertain
	Monus:	Post Hole Post Medieval
	Monus:	Post Hole Roman
		Neolithic
		Medieval
		Mesolithic
	Temporal - Auto Detected:	Medieval
		Roman
		Prehistoric
Temporal - Auto Detected:		2007

Heritage Data

Linked Data Vocabularies for Cultural Heritage

Scheme List	Concept Search	SPARQL Query	About The Project
-------------	----------------	--------------	-------------------

http://purl.org/heritagedata/schemes/eh_tmt2 ([QR Code](#))

Property	Value
rdf:type	skos:ConceptScheme
cc:license	http://creativecommons.org/licenses/by/3.0
cc:attributionURL	http://www.historicengland.org.uk
cc:attributionName	Historic England
dct:title	FISH Thesaurus of Monument Types
rdfs:label	FISH Thesaurus of Monument Types
skos:hasTopConcept	MONUMENT <BY FORM>
skos:hasTopConcept	RELIGIOUS RITUAL AND FUNERARY
skos:hasTopConcept	GARDENS PARKS AND URBAN SPACES
skos:hasTopConcept	WATER SUPPLY AND DRAINAGE
skos:hasTopConcept	COMMERCIAL
skos:hasTopConcept	COMMEMORATIVE
skos:hasTopConcept	DEFENCE
skos:hasTopConcept	DOMESTIC
skos:hasTopConcept	INDUSTRIAL
skos:hasTopConcept	AGRICULTURE AND SUBSISTENCE
skos:hasTopConcept	EDUCATION
skos:hasTopConcept	CIVIL
skos:hasTopConcept	HEALTH AND WELFARE
skos:hasTopConcept	UNASSIGNED
skos:hasTopConcept	TRANSPORT
skos:hasTopConcept	COMMUNICATIONS
skos:hasTopConcept	MARITIME
skos:hasTopConcept	RECREATIONAL
dct:description	Terminology relating to the built and buried heritage of the British Isles and used for recording sites, monuments, buildings and structures.
dct:coverage	http://data.ordnancesurvey.co.uk/id/country/england
dct:publisher	http://www.historicengland.org.uk

ads

ARCHAEOLOGY
DATA SERVICE

[HOME](#)
[SEARCH](#)
[DEPOSIT](#)
[RESEARCH](#)
[ADVICE](#)
[ABOUT](#)
[GALLERY](#)
[HELP](#)

BROWSER
BASIC

KEYWORD

SEARCH

▼ WHAT

▶ ☐ Event 176668

▶ ☐ Evidence 262879

▶ ☐ Maritime 60601

▶ ☐ Monument Types 1227742

▶ ☐ Object Types 204796

▼ WHERE

▶ ☐ England 844326

▶ ☐ Northern Ireland 18452

▶ ☐ Scotland 365469

▶ ☐ Wales 151352

▶ ☐ Isle Of Man 2864

▼ WHEN

▶ ☐ Early Prehistoric 15638

▶ ☐ Later Prehistoric 105192

▶ ☐ Roman 81087

▶ ☐ Early Medieval 24416

▶ ☐ Medieval 162011

▶ ☐ Post Medieval 383957

▶ ☐ Modern 84421

ADVANCED
MAP

RESET QUERY

[Download results as XML] [Download results as CSV]

1402540 results (page 1 OF 28051)

◀ 123 ... ▶▶

A LOOK IN THE REAR VIEW MIRROR

Historic England NRHE Excavation Index for England

Report examining the developing relationship between modern road construction, particularly motorways, and the development of archaeology, primarily in the period since the Second World War.

WILTSHIRE

ABBEY FIELDS ABBEYMead

Historic England NRHE Excavation Index for England

Followed by excavation 14/86 (Event 652905). Observation of sewer trench.

GLOUCESTERSHIRE

AINSBROOK SITE

Historic England NRHE Excavation Index for England

Evaluation and excavation of the site of a Viking period hoard recorded a disturbed burial with grave goods and a large Bronze Age enclosure. Metal detectorists had previously removed '7000' artefacts from the site, the location of which is kept secret. County location data applied to aid retrieval 2018.

NORTH YORKSHIRE

APPI EGARTH WEST OF ST ANDREWS CHURCHYARD

<http://archaeologydataservice.ac.uk>

12

Area A3, Castleward Phase 2, Derby. Archaeological Post-excavation Assess (OASIS ID: wessexar1-328626)

Wessex Archaeology, 2020

Introduction

Downloads

Metadata

Usage Statistics

Data copyright © Wessex Archaeology unless otherwise stated

This work is licensed under a [Creative Commons Attribution 4.0 International License](#).



Primary contact

Wessex Archaeology
Portway House
Old Sarum Park
Salisbury
SP4 6EB
UK
Tel: 01722 326867
Fax: 01722 337562

[Send e-mail enquiry](#)

Resource identifiers

ADS Collection: 3743
DOI: <https://doi.org/10.5284/1078327>
How to cite using this DOI

Introduction

Wessex Archaeology was commissioned by Ecus Ltd, on behalf of Lovell Partnerships Ltd, to undertake archaeological mitigation works comprising a strip, map and sample excavation on land off the corner of Carrington Street and Trinity Street, Derby, DE1 2RE. The Site covers 0.079 hectares and is centred on NGR 435835 335640.



The work exposed the remnants of terraced housing comprising foundations, floor surfaces and other structural remains. To the rear of the houses, yard surfaces, outside toilets, drains and garden/property boundary walls were recorded. The housing was built, seemingly as separate blocks, in the mid-19th century and was demolished in the early 1970s. Followin the local roads were widened, impinging on the footprints of the former buildings. Overall arrangement of the exposed remains matches the layout of the Site as portrayed on histo photographs.

The confirmed or likely location of a separate outside toilet could be identified for most of There was no definite evidence that the housing was not provisioned with these when firs possible soakaway, potentially for a more primitive type of sanitary provision such as a pri was found sealed beneath a later toilet in one property, although this interpretation was n and the feature may represent a drain instead.

No traces of any cellars were recorded, although it is proposed that these lay beneath the of the houses, which were situated beyond the limits of the Site.

The earliest archaeological deposit seen on the site was mid-19th-century levelling materi generally comprised a dirty yellowish brown sandy clay with fragments of brick/tile, typical thick. This likely represents redeposited natural, either imported to the Site, or arisings fro reduction of high ground within the Site itself.

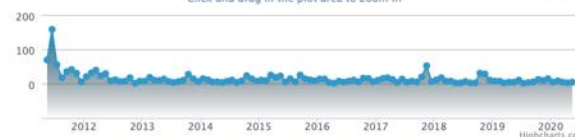
Asbestos contamination prevented the investigation of the south-western quarter of the site.

The finds assemblage largely represents mid/late 20th-century material and was largely recovered from demolition rubble. No environmental samples were collected.

Census data from 1851 to 1911 reveals that the properties were the homes of the skilled working class, with women typically working in the mills, and men employed on the railway associated trades.

Visits to the archive

Click and drag in the plot area to zoom in



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, 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 2011



Research Value

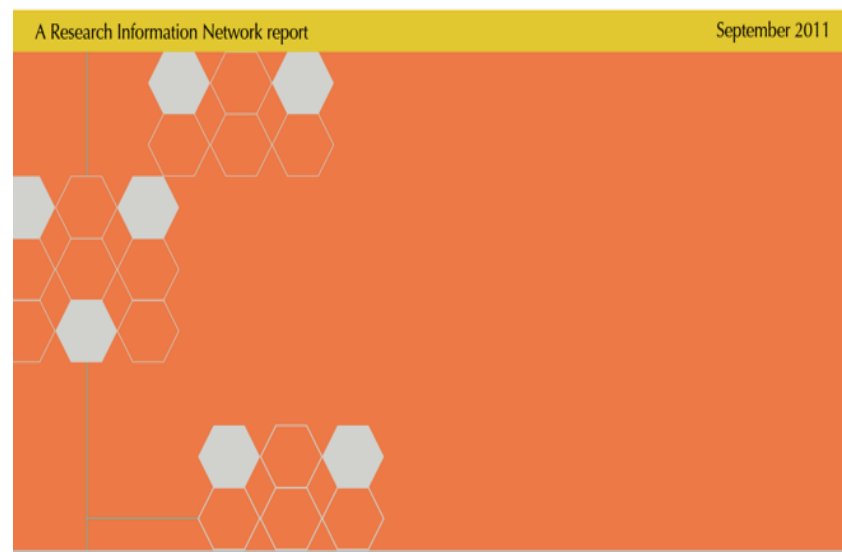
ADS: % respondents

- 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



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**





Archaeological Records of Europe - Networked Access

ads ARCHAEOLOGY DATA SERVICE DARIAH

RESET QUERY SEARCH

KEYWORD

WHERE

WHAT

- ☐ Agriculture and Subsistence
- ☐ Civil
- ☐ Commemorative
- ☐ Commercial
- ☐ Communications
- ☐ Defence
- ☐ Domestic
- ☐ Education
- ☐ Health and Welfare
- ☐ Industrial
- ☐ Maritime
- ☐ Recreational
- ☐ Transport
- ☐ Water Supply and Drainage

WHEN

- ☐ Palaeolithic
- ☐ Mesolithic
- ☐ Neolithic
- ☐ Bronze Age
- ☐ Iron Age
- ☐ Greek
- ☐ Roman
- ☐ Early Medieval
- ☐ Medieval
- ☐ Post Medieval
- ☐ Modern
- ☐ All Periods

ARENA is funded by the Archaeology Data Service | Project introduction

infrastructure

language: en | no | nl



Transatlantic Archaeology Gateway

ads ARCHAEOLOGY DATA SERVICE DARIAH

RESET QUERY SEARCH

KEYWORD

WHERE

WHAT

- ☐ Agriculture and Subsistence
- ☐ Civil
- ☐ Commemorative
- ☐ Commercial
- ☐ Communications
- ☐ Defence
- ☐ Domestic
- ☐ Education
- ☐ Health and Welfare
- ☐ Industrial
- ☐ Maritime
- ☐ Recreational
- ☐ Transport
- ☐ Water Supply and Drainage

WHEN

From [] to [] Set date range

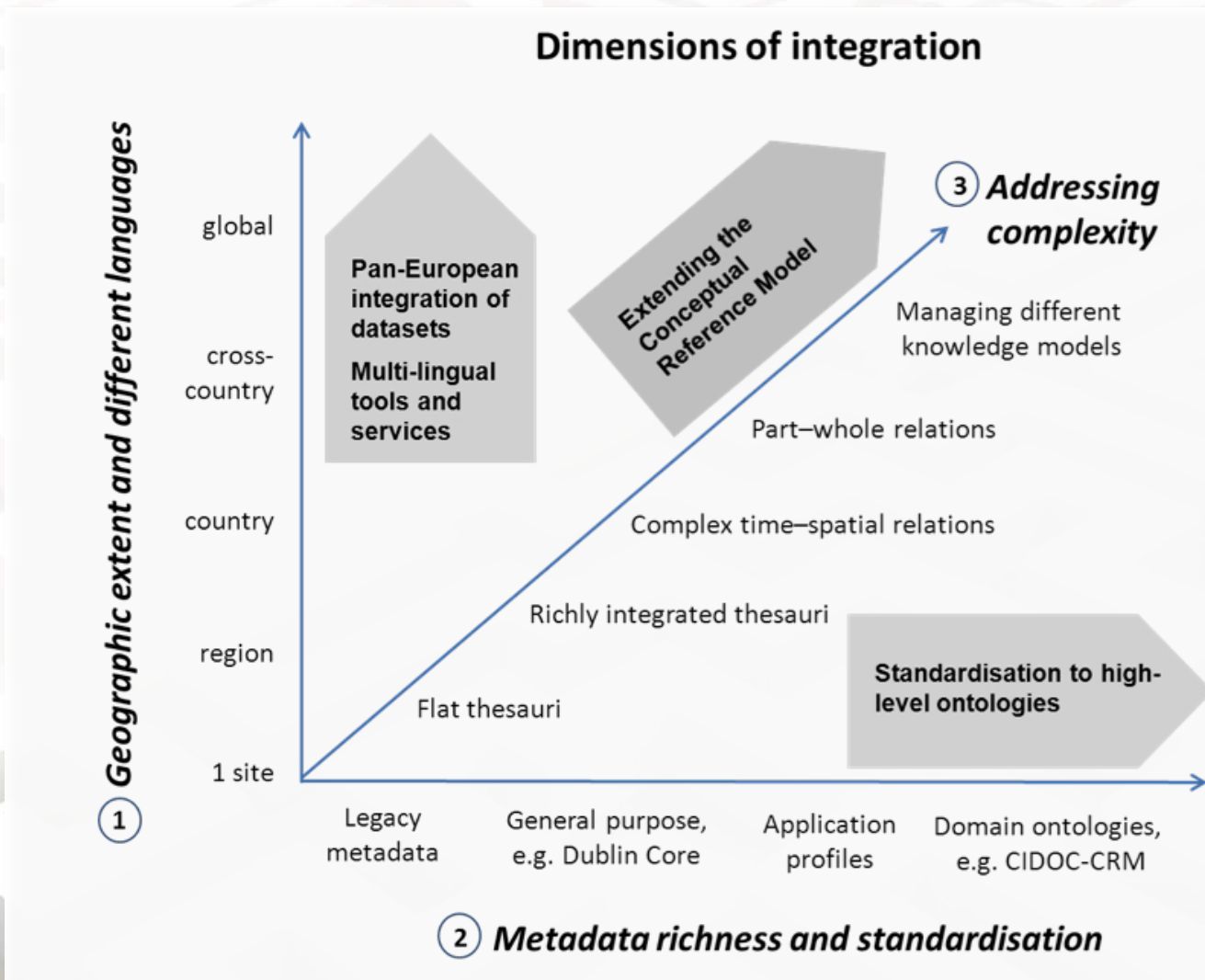
TAG is funded by the Archaeology Data Service

JISC

ARIADNEplus

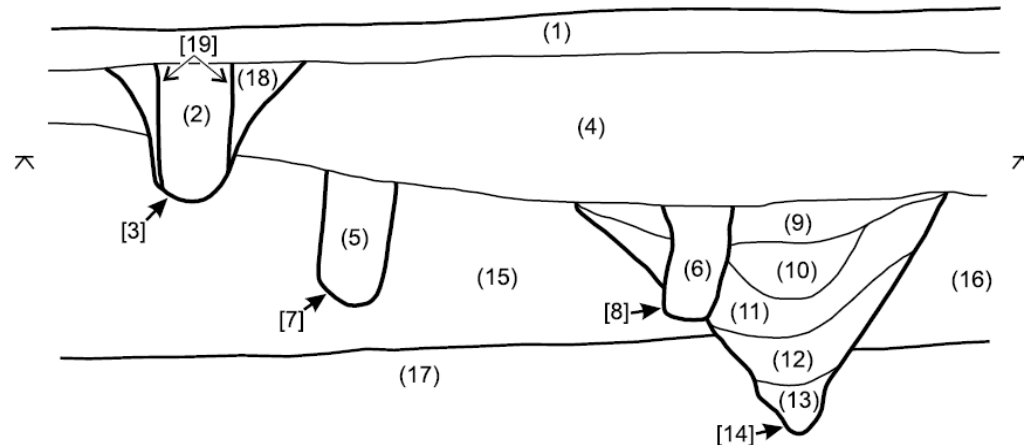


The ARIADNE roadmap



Achieving interoperability

- We have datasets in many languages and complying with many different standards
- ARIADNE uses the CIDOC CRM with extensions for archaeology to achieve integration
 - Existing datasets are mapped to the ARIADNE data model
 - WHAT: Subject concepts are mapped to the Getty A&AT
 - WHERE: WGS84
 - WHEN: Perio.do





All fields ▾

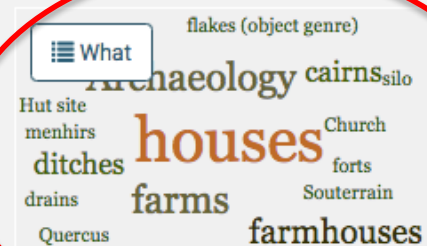
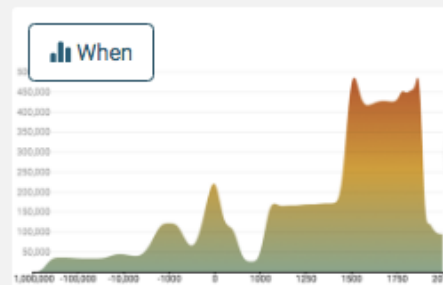
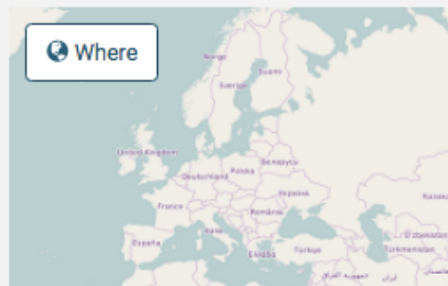
Search for resources in the Ariadne catalog ...



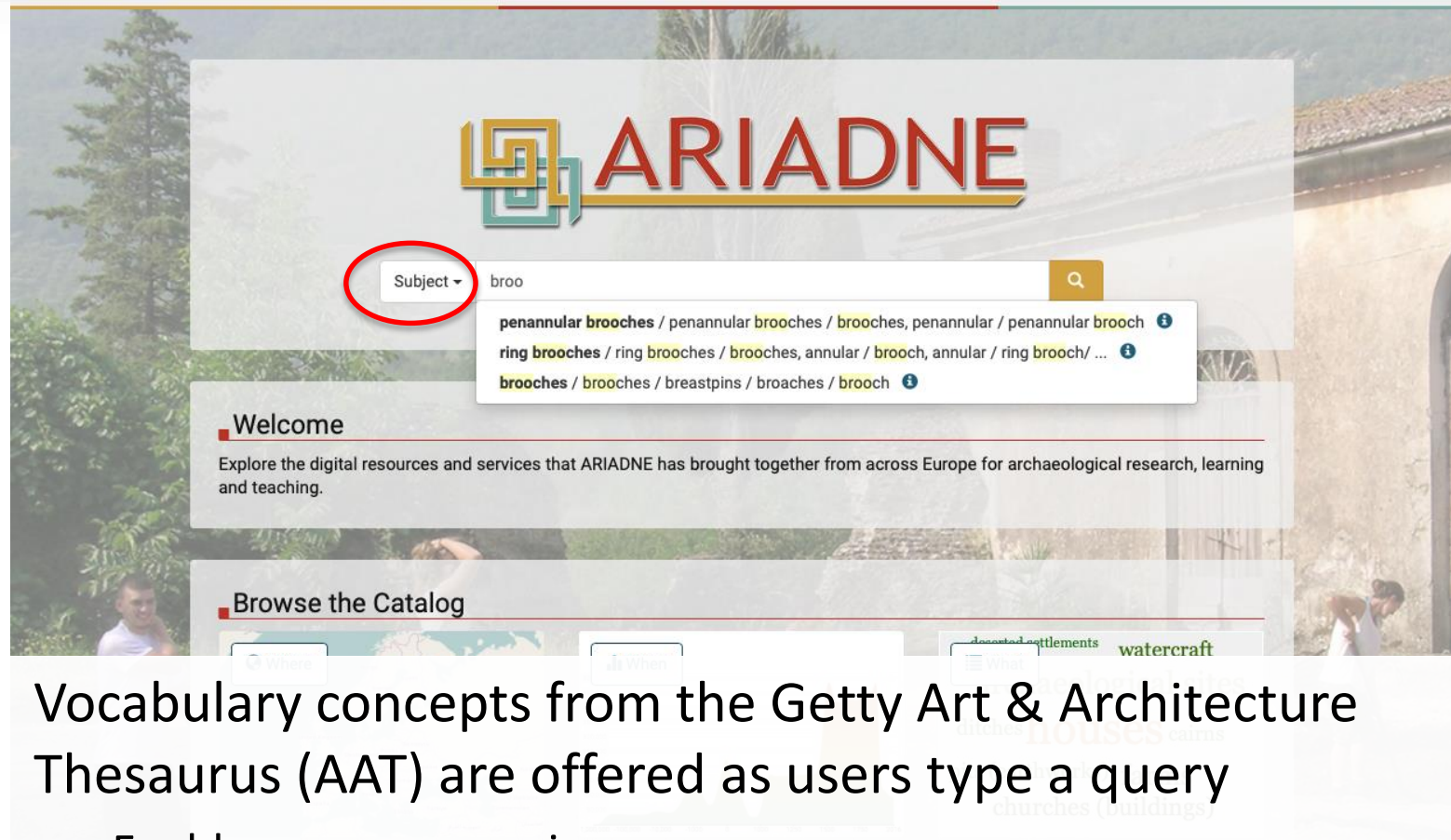
Welcome

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





ARIADNE Portal



- Vocabulary concepts from the Getty Art & Architecture Thesaurus (AAT) are offered as users type a query
 - Enables query expansion
 - Supports multilingualism



[Catalog](#)[Services](#)[About](#)


Current search

ARIADNE subject: ring brooches

*

Filters

Where




When

- +

Q


Total results: 5

Order By Title

**An Archaeological Evaluation at 98-100 Bull Close Road, Norwich, Norfolk**


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

An Archaeological Evaluation at 98-100 Bull Close Road, Norwich, Norfolk

**Archaeological Excavation Report: Norwich Road and Exeter Crescent Road alignment, RAF Lakenheath ERL 161**


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

Archaeological Excavation Report: Norwich Road and Exeter Crescent Road alignment, RAF Lakenheath ERL 161

**Report on a Second Phase of Archaeological Evaluation at Land adjoining Swanton Morley Airfield, Beetley, Norfolk**

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

Report on a Second Phase of Archaeological Evaluation at Land adjoining Swanton Morley Airfield, Beetley, Norfolk

**The Mucking Anglo-Saxon cemeteries**

Type: Fieldwork archives Publisher: Archaeology Data Service

The Anglo-Saxon cemeteries at Mucking, Essex, represent the burials of over 800 individuals from the 5th to early 7th centuries AD. The mixed rite Cemetery II is one of the largest and most complete Anglo-Saxon cemeteries yet excavated (282 inhumations, 463 cremation burials), while the pa...





Archaeological Excavation Report: Norwich Road and Exeter Crescent Road alignment, RAF Lakenheath ERL 161

[Access resource on the web](#)

Archaeological Excavation Report: Norwich Road and Exeter Crescent Road alignment, RAF Lakenheath ERL 161

ring brooches beads (pierced objects) coins (money) brooches human remains knives lift latches lithics rings (object genres) rivets spearheads clasps (fasteners) human remains ditches burials pits (earthworks) pits (earthworks)

Iron Age Late Iron Age

ERL 161 New Road Layout, RAF Lakenheath

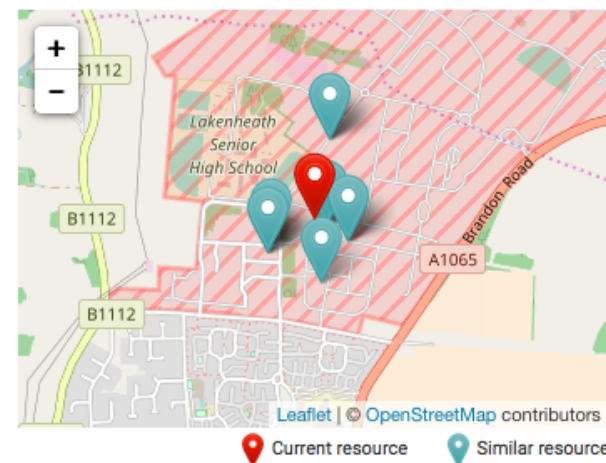
Metadata

ARIADNE ID 14637038
Original ID 1946180
Language English
Resource type Sites and monuments databases or inventories
Subject ring brooches
beads (pierced objects)
coins (money)
brooches
human remains
knives
lift latches
lithics
rings (object genres)
rivets
spearheads
clasps (fasteners)

Resource is part of

ArchSearch: ADS catalogue

Geographically similar

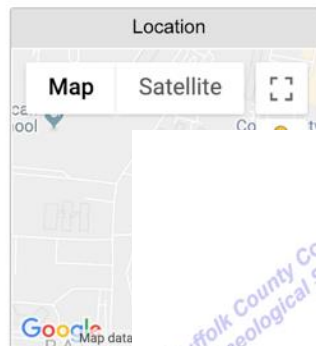


Thematically similar

Archaeological Excavation Report: Norwich Road and Exeter Crescent Road alignment, RAF Lakenheath ERL 161
 The Mucking Anglo-Saxon cemeteries
 Saltwood Tunnel, Kent - Integrated Site Report
 Wasperton Anglo-Saxon Cemetery

Caruth, J., (2009). *Archaeological Excavation Report: Norwich Road and Exeter Crescent Road alignment, RAF Lakenheath ERL 161*. Ipswich: Suffolk County Council Archaeological Service.




i Title:	Archaeological Excavation Report: Norwich Road and Exeter Crescent Road alignment, RAF Lakenheath ERL 161
i Series:	Suffolk County Council Archaeological Service unpublished report series
i Downloads:	suffolk1-30346-1.pdf (6 MB) Download
i DOI	https://doi.org/10.5284/1004825
i Publication Type:	Report (in Series)
i Abstract:	An archaeological excavation was carried out in advance of the realignment of the junction of Norwich and Plymouth Roads and Exeter Crescent at RAF Lakenheath, which lies close to an area from where 267 Anglo-Saxon burials were found in 1997. The work was carried out in stages in order to minimise disruption to the traffic flow between April 2007 and August 2008. Three Anglo-Saxon burials were identified during the final stages of the work linking the existing Norwich Road into the new road, two of which were new discoveries and one of which was the second half of a burial found during pipelaying works in 2002...
i Author:	J Caruth
i Publisher:	Suffolk County Council Archaeological Service
i Other Person/Org:	Historic England (OASIS Reviewer) Suffolk HER (OASIS Reviewer)
i Year of Publication:	2009
i Locations:	Site: ERL 161 New Road Layout, RAF Lakenheath Parish: ERISWELL District: FOREST HEATH County: SUFFOLK Country: England Grid Reference: 572860, 280320 (Easting, Northing)
	Find: Annular Brooch Early Medieval




ARCHAEOLOGICAL EXCAVATION REPORT

SCCAS REPORT No. 2009/125

Norwich Road and Exeter Crescent Road realignment, RAF Lakenheath ERL 161


 Catalog

 ring brooches

Getty AAT ID 300263352

Note Brooches in the shape of a ring, with a movable pin that may extend beyond the diameter of the ring; usually of metal and often ornamented. Used to fasten costume and worn especially during the Medieval period in Europe.

URI <http://vocab.getty.edu/aat/300263352>

Broader  brooches

Terms

English [ring brooches](#) [brooches, annular](#) [brooch, annular](#) [ring brooch](#) [annular brooches](#) [annular brooch](#) [brooches, ring](#) [ring-brooch](#)

[brooch, ring](#) [ring-brooches](#)

Spanish [broches](#) [ring brooch](#) [broche](#)

Dutch [ringbroches](#) [ringbroche](#)

Provider mapping

ANNULAR BROOCH

Match URI <http://www.w3.org/2004/02/skos/core#exactMatch>

Source URI http://purl.org/heritagedata/schemes/mda_obj/concepts/97114



In summary...

- Nearly 30 years of making heritage data FAIR...
- Still a long way to go
- Importance of data standards
- Value of good metadata
- Needs for community and international efforts
- What is missing in the metadata to better support re-use?



Thank-you for listening



Follow us on Twitter:
@ADS_Update
@ARIADNE_Network



Follow us on Facebook:
<http://www.facebook.com/archaeology.data.service>



E-mail: julian.richards@york.ac.uk

Website: <http://archaeologydataservice.ac.uk/>

ARIADNE portal: <http://portal.ariadne-infrastructure.eu>