

Making Archaeology FAIR: in the ADS and ARIADNE



Julian Richards, ADS University of York, UK

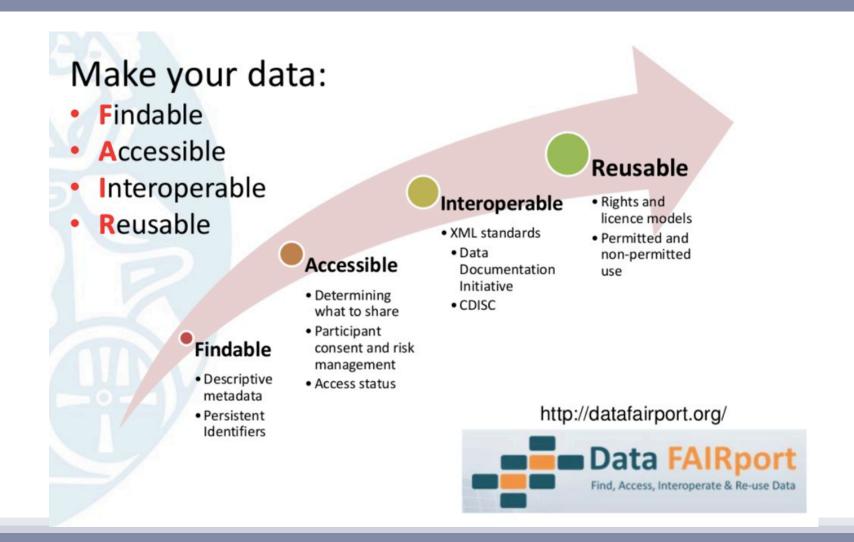








FAIR principles





In practice....

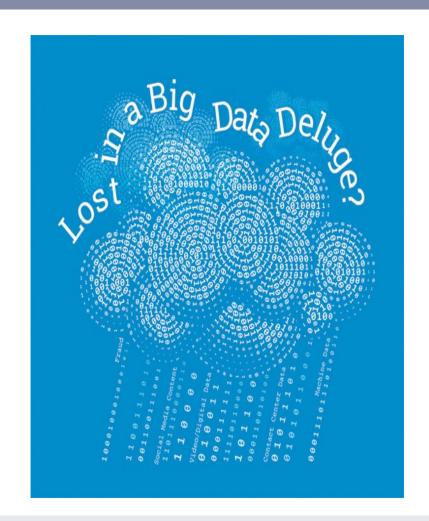
- Being FAIR when archaeological information is MEAN:
 - Miscellaneous
 - Exceptional
 - Arbitrary
 - Nonconformist

(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









FINDABLE



SEARCH

FEATURED COLLECTION

Isles of Scilly Designated Wrecks Interpretation: The Wheel Wreck

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dependable digital resources.

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

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CoreTrustSeal Certification

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



The ADS disseminates a broad range of digital heritage data that are free to access and reuse. This includes data rich archives, unpublished reports, journals and metadata records.

NEWS

Are you visiting our website order to use marine data? If § would you mind taking a fe minutes to answer the followi questionnaire to assess the flo of marine data in the glot economy?

Search our resources

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



Search Monument and **Event Records**



Search our Data



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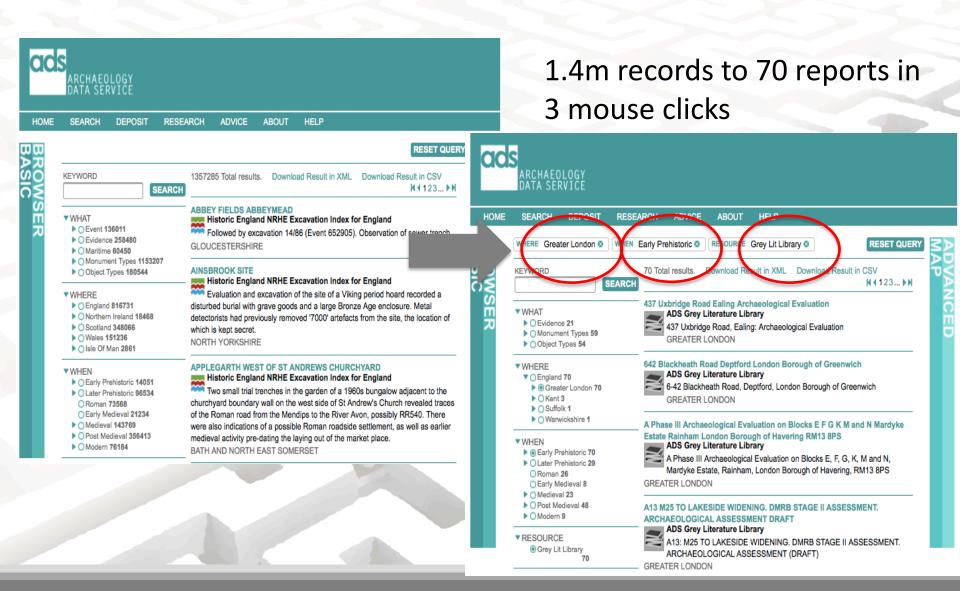








ACCESSIBLE





Go to Grev Lit Report

ACCESSIBLE

Download the report; cite by Digital Object Identifier



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



London Borough of Southwark

Country: ENGLAND

District: SOUTHWAR

Parish: SOUTHWAR

Named Location: 55

Grid reference: TQ3

Map reference: [EPS

MEDIEVAL - SLAG , F

MEDIEVAL - MARSH

Identifiers:

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

County: GREATER I DOCUMENT VERIFICATION

551 OLD KENT ROAD LONDON SE1 LONDON BOROUGH OF SOUTHWARK

EXCAVATION

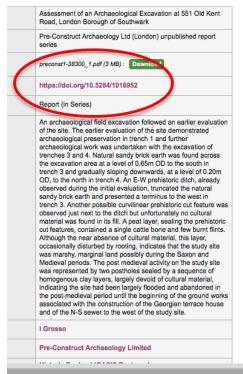
Period/Subject: ROI BURNT FLINT , MESI

Quality Control

Pre-Construct Archaeology Limited			K1698
	Name & Title	Signature	Date
Text Prepared by:	Ireneo Grosso		April 2008
Graphics Prepared by:	Hayley Baxter	111	April 2008
Graphics Checked by:	Josephine Brown	19. molles	April 2008
Project Manager Sign-off:	Jon Butler	Janulles	April 2008

Revision No.	Date	Checked	Approved

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



Location

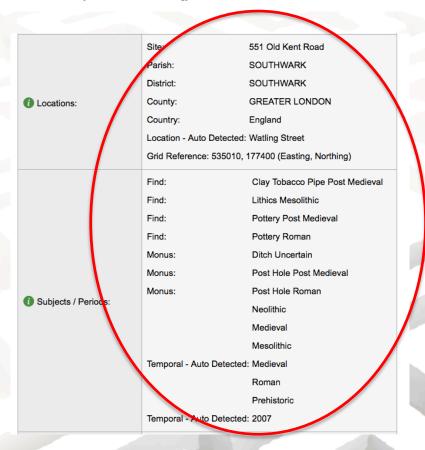


INTEROPERABLE



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

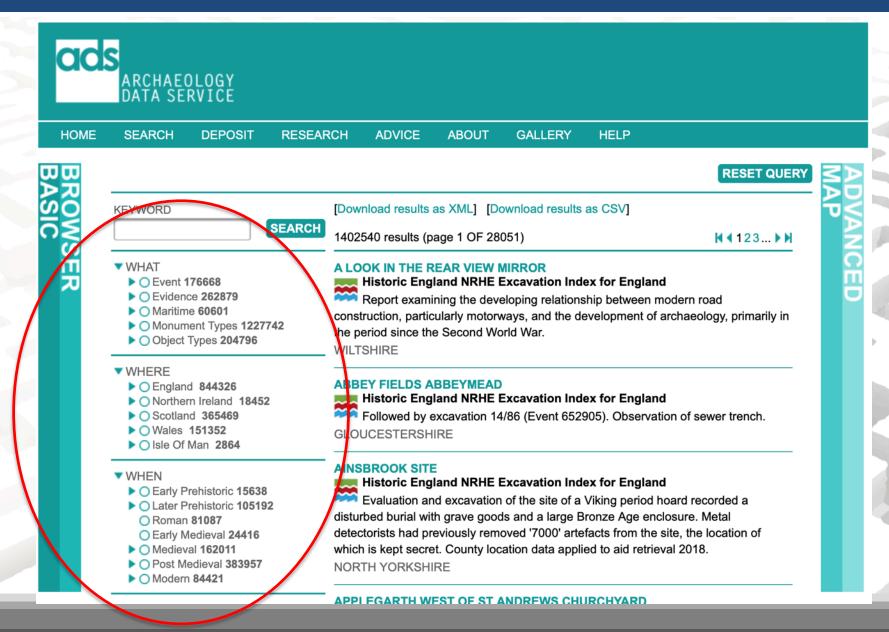


Heritage Data Linked Data Vocabularies for Cultural Heritage

cheme List	Concept Search	SPARQL Query About The	Project	
		http://purl.org/heritagedata/scl	hemes/eh_tmt2(QR Code)	
Property		Value		
rdf:type		skos:ConceptScheme		
cc:license		http://creativecommons.org/licenses/by/3.0		
cc:attributionURL htt		http://www.historicengland.org.uk		
cc:attribution	nName	Historic England		
dct:title		FISH Thesaurus of Monument Types		
rdfs:label	FISH Thesaurus of Monument Types			
skos:hasTop	os:hasTopConcept MONUMENT <by form=""></by>			
skos:hasTop	os:hasTopConcept RELIGIOUS RITUAL AND FUNERARY			
skos:hasTop	Concept	GARDENS PARKS AND URBAI	N SPACES	
skos:hasTop	Concept	WATER SUPPLY AND DRAINAGE		
skos:hasTop	s:hasTopConcept COMMERCIAL			
skos:hasTop	Concept	oncept COMMEMORATIVE		
skos:hasTop	Concept	DEFENCE		
skos:hasTop	Concept	DOMESTIC		
skos:hasTop	Concept	INDUSTRIAL		
skos:hasTop	Concept	AGRICULTURE AND SUBSIST	ENCE	
skos:hasTop	Concept	EDUCATION		
skos:hasTop	Concept	CIVIL		
skos:hasTop	Concept	HEALTH AND WELFARE		
skos:hasTop	Concept	UNASSIGNED		
skos:hasTop	Concept	TRANSPORT		
skos:hasTop	Concept	COMMUNICATIONS		
skos:hasTop	Concept	MARITIME		
skos:hasTop	Concept	RECREATIONAL		
dct:descripti	ion	Terminology relating to the built and buried heritage of the British Isles and used for recording sites, monuments, buildings and structures.		
dct:coverage	e	http://data.ordnancesurvey.co.uk/id/country/england		
dct:publisher http://www.historicengland.org.uk		ık .		



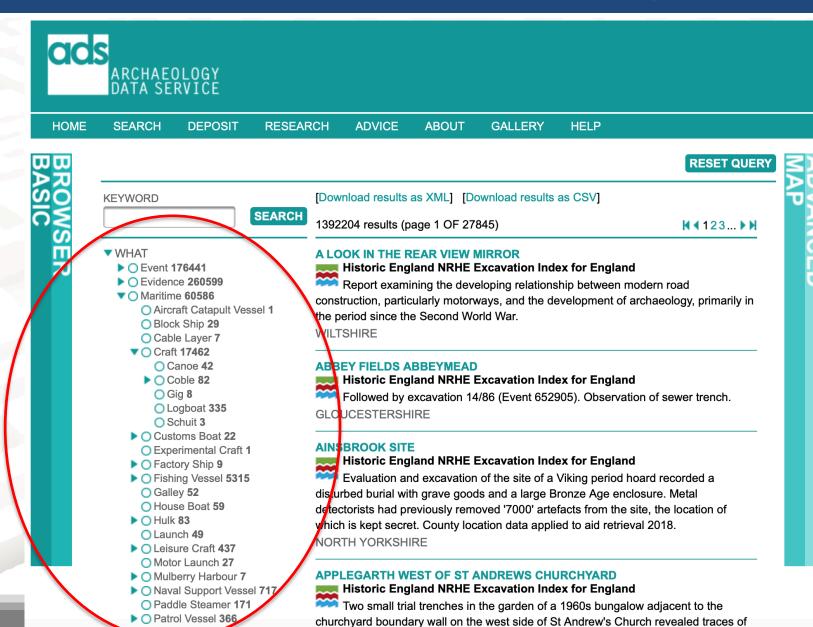
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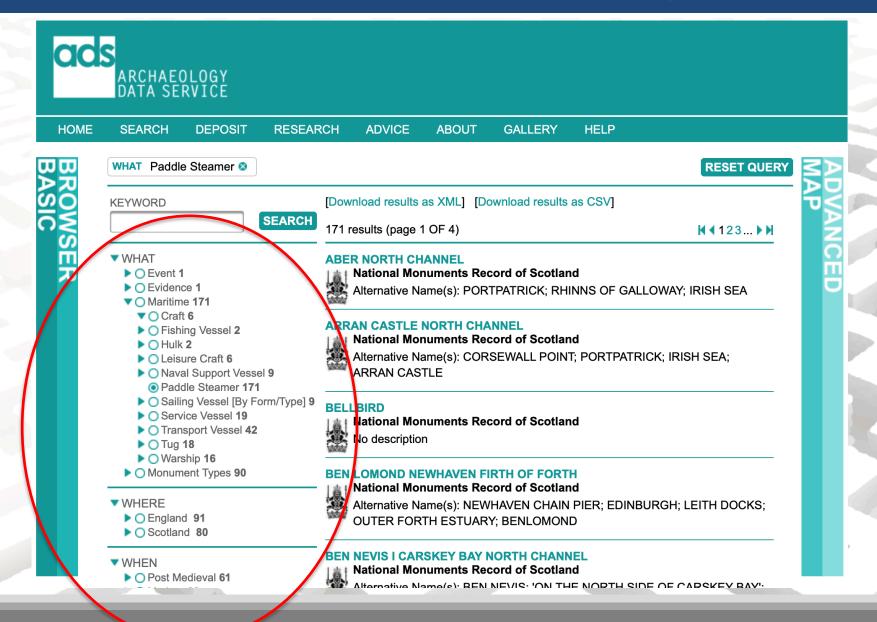
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nttp://archaeologydataservice.ac.uk



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

Wessex Archaeology, 2020

Introduction Downloads

Usage Statistics

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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 no 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.

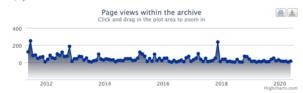
Census data from 1851 to 1911 reveals that the properties were the homes of the skilled working class,



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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

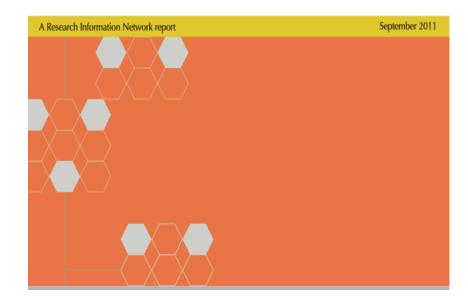
ADS: % respondents

- 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



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





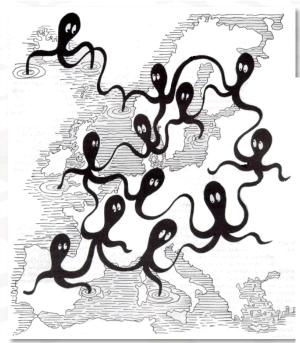
CENTRE FOR STRATEGIC ECONOMIC STUDIES

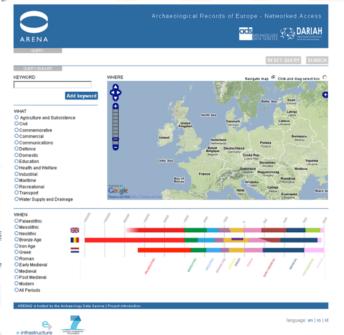






Joining it all up







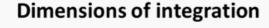


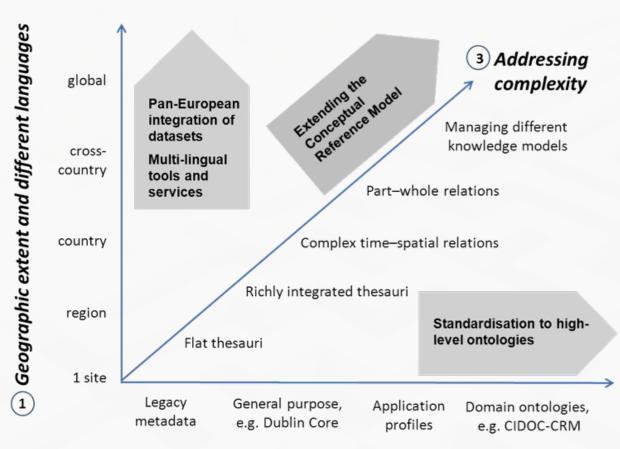
ARIADNEplus





The ARIADNE roadmap



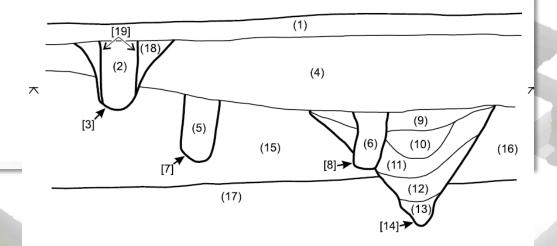




2 Metadata richness and standardisation

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





ARIADNE portal



All fields -

Search for resources in the Ariadne catalog ...

Q

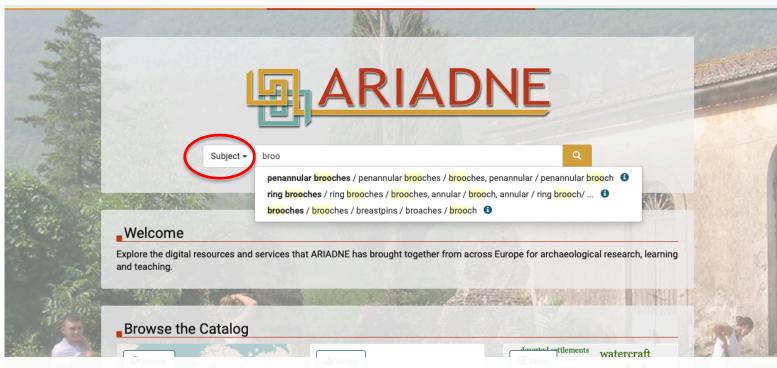
Welcome

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.



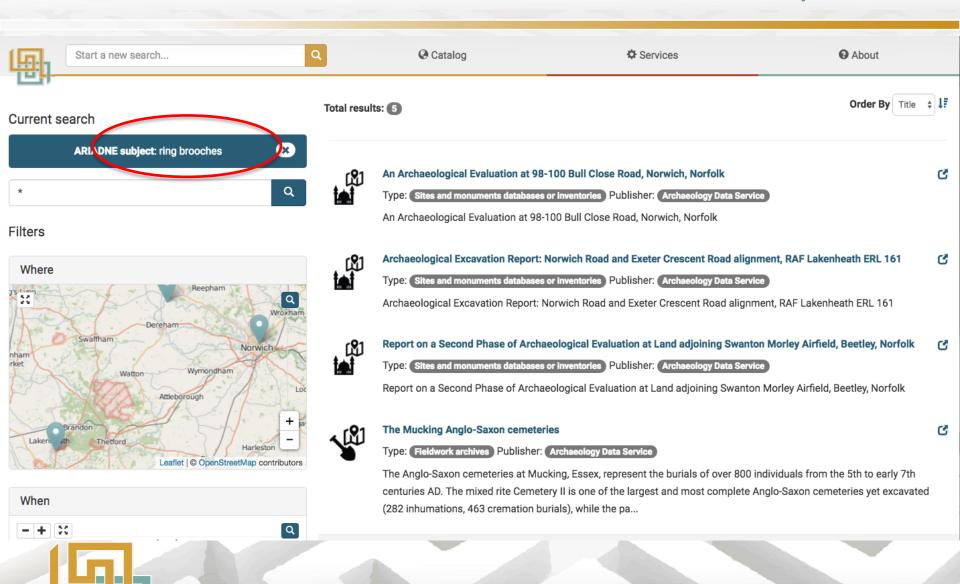
http://portal.ariadne-infrastructure.eu

ARIADNE Portal



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

ARIADNE portal



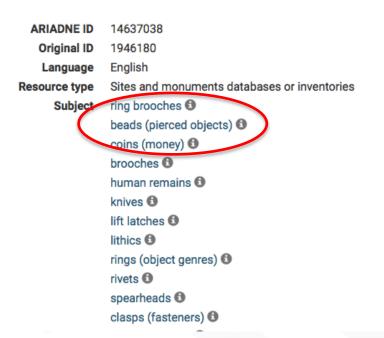
PERL 161 New Road Layout, RAF Lakenheath



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



Metadata



Access resource on the web 🗹

Geographically similar 6



Thematically similar 6

- 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



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

1 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		
① Downloads:	suffolke1_20246_1,pdf (6-M8) Download		
1 DOI	https://doi.org/10.5284/1004825		
Publication Type:	Report (in Series)		
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		
Author:	J Caruth		
1 Publisher:	Suffolk County Council Archaeological Service		
① Other Person/Org:	Historic England (OASIS Reviewer) Suffolk HER (OASIS Reviewer)		
1 Year of Publication:	2009		
1 Locations:	Site: ERL 161 New Road Layout, RAF Lakenheath Parish: ERISWELL District: FOREST HEATH County: SUFFOLK Country: England Grid Reference: 5/2860, 280320 (Easting, Northing)		
	Find: Annular Brooch Early Medieval		





ARCHAEOLOGICAL EXCAVATION REPORT

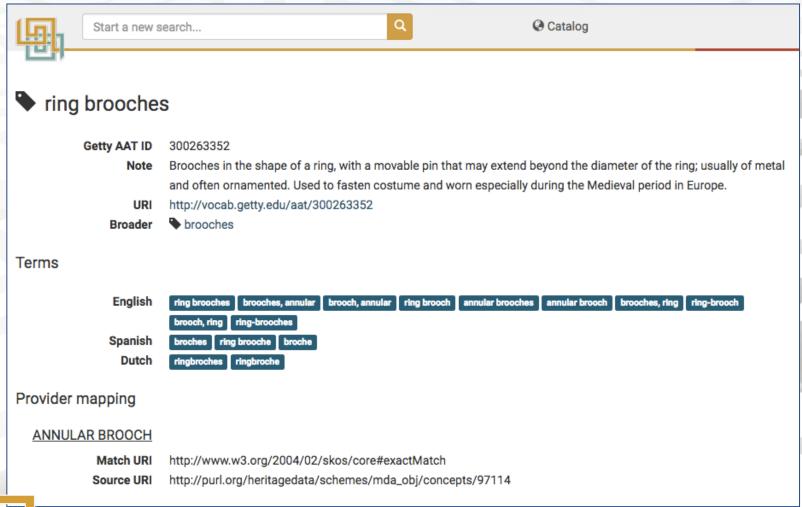
SCCAS REPORT No. 2009/125

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





Multilingual support





In summary...

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







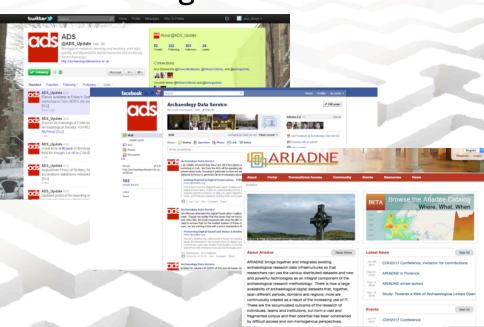
Thank-you for listening



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