Open Data in Archaeology

Prof Julian Richards Director, Archaeology Data Service University of York





Open Data

- Open data is the idea that certain data should be freely available to everyone to use and republish as they wish, without restrictions from copyright, patents or other mechanisms of control (Wikipedia, 9 June 2013)
- Open data tradition and archaeology



Outline

- Open Data
- National digital research data infrastructures
 - The Archaeology Data Service case study
 - Developments in other countries
- Interoperability and transnational research infrastructures
 - ARIADNE



Open Data

- Related to Open Access movement for publications
- Data.gov & Data.gov.uk
- "A piece of data is open if anyone is free to use, reuse, and redistribute it — subject only, at most, to the requirement to attribute and/or share-alike



Linked Open Data Cloud



ARCHAEOLOGY DATA SERVICE

Linked Open Data in Archaeology





Open Data in Science

- The concept of **open access to scientific data** was institutionally established in preparation for the International Geophysical Year of 1957-8. The International Council of Scientific Unions established several World Data Centers to minimize the risk of data loss and to maximize data accessibility, further recommending in 1955 that data be made available in machine-readable form.
- Therefore, Open-science-data movement long predates the Internet, but publishing or obtaining data has become much less expensive and time-consuming.
- 2004, the OECD (Organisation for Economic Co-operation and Development) Science Ministers - all publicly funded archive data should be made publicly available.
- 13 June 2013 European parliament ratifies new rules on Open Data - includes cultural heritage data

Open Data in Archaeology: Pros

- "Past belongs to everyone"
 - democratisation of knowledge
- Accelerated pace of new knowledge
- Economic benefit of Open Data
- Public benefit of Open Data
 - Community engagement in heritage e.g.
 Finds.org.uk; Europeana;
 - Justification of taxpayer investment



Open Data in Archaeology: Challenges

- Privacy issues site location; indigenous peoples; personal data
- Misuse of data
- Funding of data management & data infrastructures
- Importance of provenance
- Legitimate concerns of information providers



Outline

- Open Data
- National digital research data infrastructures
 - The Archaeology Data Service case study
 - Developments in other countries
- Interoperability and transnational research infrastructures
 - ARIADNE



UK: Archaeology Data Service

- Founded 1996, University of York
- 17 staff

ads

Collections

ARCHAEOLOGY DATA SERVICE

- 1,100,000 metadata records
- 20,000+ unpublished fieldwork reports
- 700+ rich archives
- Guides to Good Practice
- DPC Decennial Award 2012





Mandated Deposition

The ADS is the mandated repository for the following bodies:





The ADS is a recommended repository for the following bodies:





ENGLISH HERITAGE



The ADS receives project funding from the following bodies:









LOGIN

 HOME
 ARCHSEARCH
 ARCHIVES
 LEARNING
 ADVICE
 OUR RESEARCH
 BLOG
 ABOUT US

 > ALL
 JOURNALS AND SERIES
 GREY LITERATURE
 PROJECT ARCHIVES
 BIBLIOGRAPHIES
 THESES

Channel Tunnel Rail Link Section 1

Stuart Foreman, 2004 (updated 2009)

Introduction Project Overview Project Downloads Using the resource

Map Search Period Search Advanced Search Site List Reference List

Data copyright © High Speed 1 unless otherwise stated



Map Search Click on the panels of the map below to see site details.





▶ ALL | JOURNALS AND SERIES | GREY LITERATURE | PROJECT ARCHIVES | BIBLIOGRAPHIES | THESES

Framework Archaeology Heathrow Terminal 5 Excavation Archive Framework Archaeology, 2011

Introduction Overview Query Downloads

Data copyright © Framework Archaeology unless otherwise stated

E	

Primary contact Wessex Archaeology Portway House Old Sarum Park Salisbury SP4 6EB

Introduction

Framework Archaeology is a Joint Venture agreement between Oxford Archaeology (OA) and Wessex Archaeology (WA) to provide archaeological services to BAA. Given the potential scale of some of BAA's projects, the joint venture enables Framework Archaeology to draw on the full resources of both OA and WA, including site staff, specialist managers, administrative support, and technical facilities. This combination of resources (totalling over 300 staff) considerably reduces risk for both our client and us, and 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 parrative as the site is excavated (Andrews, Barrett &



Pages: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |> >>

Click on the images or the links below to view more details for each biface.

Lower Palaeolithic technology, raw material and population ecology Gilbert Marshall, David Dupplaw, Derek Roe, Clive Gamble, 2002

Introduction | Overview | Query

Introduction Overview Query

Query - Results Records 1 - 20 of 256

Data copyright © University of Southampton unless otherwise stated

> $A \cdot H \cdot R \cdot B$ arts and humanities research board

IRREGULAR QUARTZITE HANDAXE (344g) Location: OLDUVAI GORGE TANZANIA Museum: NATIONAL MUSEUM, DAR ES SALAAM, TANZANIA

Primary contact Dr Gilbert Marshall Department of Geography Royal Holloway, University of London Egham Surrey TW20 0EX England Tel: 🛛 😹 🗸 01784 443569 🕓

Send e-mail enquiry

Resource identifiers

ADS Collection: 349 doi:10.5284/1000354 How to cite using this DOI





IRREGULAR QUARTZITE HANDAXE (480g) Location: OLDUVAI GORGE TANZANIA Museum: NATIONAL MUSEUM, DAR ES SALAAM, TANZANIA



IRREGULAR QUARTZITE HANDAXE (763g) Location: OLDUVAI GORGE TANZANIA Museum: NATIONAL MUSEUM, DAR ES SALAAM, TANZANIA



IRREGULAR QUARTZITE HANDAXE (404g) Location: OLDUVAI GORGE TANZANIA Museum: NATIONAL MUSEUM, DAR ES SALAAM, TANZANIA



HOME ARCHSEARCH

RCH ARCHIVES

LEARNING ADVICE

E OUR RESEARCH ABOUT US

LOGIN

SEARCH

▶ ALL | JOURNALS AND SERIES | GREY LITERATURE | PROJECT ARCHIVES | BIBLIOGRAPHIES | THESES

Defence of Britain Archive

Council for British Archaeology, 2002 (updated 2006)

Introduction Overview Download Gallery Search Project homepage

Data copyright © Council for British Archaeology unless otherwise stated



Primary contact Council for British Archaeology St Mary's House 66 Bootham York YO30 7BZ UK Tel: 01904 671417 Fax: 01904 671384

Send e-mail enquiry

Resource identifiers

ADC Callestians 204

[Return to results list]

Shell-proof type 24 pillbox.
(Source: Book 1999)
Brick-shuttered type 24 pillbox at edge of wood. With attached porch/blast wall. Faces SW. In excellent condition. Internal access possible. A short spur of anti-tank ditch leads up to this pillbox [see UORN 8552].
Five iron picket posts are still in place in the bank on the N side of the pillbox.

(Source: Field Visit 2003/02/05)

Type of site	PILLBOX (TYPE FW3/24)
Location	At S corner of Hog Wood.
Area	Hinton Charterhouse, Bath and North East Somerset, England
Grid reference	ST 7741 5944
Period	WW2
Condition	Good
Materials	Clay Brick, Reinforced Concrete
Recorder	Foot, William (English Heritage Defence Areas Project)
Defence grouping	the (2H() Line: Riue) and then north to the Diver Severn at Newnham. This line is also
Photographs	
DOB site reference:	S0008550
Reference	1999 Ironside's Line 1999 Warwalks: Stop Line Green
Event	Construction, In the period 1940 1941



British Archaeological Awards 2008 Best Archaeological Innovation



The Urban Landscapes of Ancient Merv, Turkmenistan Tim Williams, Sjoerd van der Linde, 2008

Introduction Overview Interactive Map Downloads

Data copyright © Dr Tim Williams unless otherwise stated





Primary contact Dr Tim Williams Institute of Archaeology University College London Gower Street London WC1E 6BT UK

Send e-mail enquiry

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 Werv 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 Karakum¹. In 2002 an expanded version of the photographic collection was published in 'The Monuments of Merv - A scanned archive of photographs and plans², 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.

Herrmann, G. 1999. Monuments of Merv. Traditional Buildings of the Karakum. London: Society of Antiquaries London

²Herrmann, G. Coffey H., Laidlaw S. and K. Kurbansakhatov 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, LondonWC1H 0PY. Email: 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 artide Table of Contents

Features

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

NEXT CONTENTS HOME COMMENTS

© Internet Archaeology/Author(s) URL: <u>http://intarch.ac.uk/journal/issue25/merv_index.html</u> Last updated: Wed Apr 02 2008



ARCHAEOLOGY



*<@?



comparison of quality and processing employed

The Urban Landscapes of Ancient Merv, Turkmenistan Tim Williams, Sjoerd van der Linde, 2008

Downloads

Introduction Image files |GIS files |Documents |Movies |Oral Interviews

Introduction Overview Interactive Map Downloads

Primary contact

Institute of Archaeology

Send e-mail enquiry

Resource identifiers

archaeology

ADS Collection: 489 doi: 10.5284/1000164 How to cite using this DOI

University College London

Dr Tim Williams

Gower Street London

WC1E 6BT

Data copyright © Dr Tim Williams unless otherwise stated

GIS files Documentation:



Raster and World Files:

GIS Layers

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.

PDF

71 Kb

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

	AP Dom-Joined and enhanced	ZIP	80 Mb
PREVIEW			
PREVIEW	ikonos	ZIP	45 Mb
PREVIEW	AP Cerl-Joined	ZIP	64 Mb
PREVIEW	Russian map	ZIP	4 Mb
PREVIEW	AP DomJoined	ZIP	86 Mb
(in the starts	AP Ceri-cut contrasted	ZIP	25 Mb

PREVIOUS NEXT CONTENTS HOME

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 Gyaur 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

 Opcont
 Image: Control of the second seco

Figure 6: A short introductory film about Merv



Figure 7 [GIS]: The city of Sultan Kala, showing the position of the Madjan Canal (blue: flowing south to north), 11th century defensive circuit (yellow for the main city, and brown for the northern and southern suburb), and some of the principal mountements. The carlier city of Gyaur Kala lies to the right. (Background IKONG satellite image).





Unpublished Fieldwork Reports (Grey Literature Library)

Introduction Browse by contractor Search reports



GREY LITERATURE

Primary contact Archaeology Data Service King's Manor Exhibition Square York YO1 7EP England Tel: 01904 323954 Fax: 01904 323939

Send e-mail enquiry

Introduction

The aim of this resource is to make available unpublished fieldwork reports in an easily retrievable fashion. There are **currently 20001 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.





ads ARCHAEOLOGY DATA SERVICE

HOME ARCHSEARCH

ARCHIVES

ADVICE OUR RESEARCH ABOUT US LOGIN

LEARNING ALL | JOURNALS AND SERIES | GREY LITERATURE | PROJECT ARCHIVES | BIBLIOGRAPHIES | THESES

Unpublished Fieldwork Reports (Grey Literature Library)

Introduction Browse by contractor Search reports



Primary contact Archaeology Data Service King's Manor Exhibition Square York YO1 7EP England Tel: 🛛 😽 🗸 01904 323954 🕓 Fax: 01904 323939



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







SEARCH





- Free at point of use
- No login/password required
- Copyright and Liability statements
- Access & Use Conditions
- Rights asserted frequently
- IPR challenge for first use



- Non-exclusive licence to distribute
- Use for 'research, learning and teaching' – and research includes commercial re-use
- Ownership remains with creators
- Digital Object Identifiers (DOIs)

http://archaeologydataservic



ADS Terms and Conditions of Use

Access to all ADS resources is free, but you must accept the ADS Terms and Conditions of Use before using ADS Archsearch or Archive services.

Read the Terms of Use and Access to ADS Resources Statements and Agreements

ACCEPT DECLINE

This acceptance is valid for the period of your browser session. You can make a one-time acceptance of the ADS Terms and Conditions by registering for myADS. For more information read about the benefits of registering.

Register for myADS

University of York legal statements I ADS terms and conditions I Cookies



THE UNIVERSITY of York

*<୭

The alternative proposed in 1996 was far worse – written permission from each user!



SEARCH

HOME ARCHSEARCH ARCHIVES L

ADVICE OUR RESEARCH

LOGIN

▶ ADVICE | PRESERVATION | GUIDES TO GOOD PRACTICE | NOTES AND PAPERS | TOOLS AND SERVICES

The terms of use and access to ADS resources

Unless a form of Creative Commons & lidence is clearly attached to a particular collection and the Creative Commons logo is prominently displayed on that collection's introduction page the following terms of use and access apply.

The terms of use and access to ADS resources are defined in two documents:

- · Copyright and Liability Statement
- Common Access Agreement

Copyright and Liability Statements

Preamble

Archaeological data are the product of many years of scholarship by numerous archaeologists, collectors, analysts, antiquarians, field workers and laboratory scientists. It is not possible to credit all these scholars individually, or sometimes even identify them, but in making their data available for re-use, the ADS acknowledges their contribution. At all times, the ADS seeks to protect the intellectual property rights and copyright of the originators of data where that can reasonably be achieved. The catalogue also includes links to other service providers. It is the responsibility of users to acknowledge and comply with the copyright conditions that may be imposed by other service providers.

Questions about copyright should be addressed to the Archaeology Data Service, King's Manor, The University of York, York YO1 7EP, UK. See also the ADS Common Access Agreement

Copyright Statement

All material on this web server is protected by copyright. Specific copyright holders are identified in the appropriate pages and sections. In all other instances, copyright is retained by The University of York on behalf of the Archaeology Data Service (ADS). Links to materials on other servers should not be construed as a claim over them. All rights reserved.

A non-exclusive, non-transferable licence is hereby granted to those using or reproducing, in whole or in part, the material for valid not-for-profit teaching and research purposes, providing the copyright owners are acknowledged. The Archaeology Data Service should be cited as the source of the material from this server. Where specific permission to use material is required, this is identified and such permission must be sought from the copyright holder or agency cited. Anyone wishing to use the catalogue for any other purpose must contact the ADS to seek permission.

Liability Statement

The Archaeology Data Service (ADS) catalogue of collections is a catalogue, and as such, the maintainers of the catalogue explicitly disclaim to the extent permitted by law any responsibility for the accuracy, content, or availability of Information located through use of the catalogue, or for any damage incurred owing to use of the information contained therein.

Information located through use of the catalogue may be subject to specific use constraints, details of which will be made accessible to potential users by the catalogue. It is the responsibility of potential and actual users to be aware of such constraints and to abide by them.



Year on year usage 1997-2011





Grey Literature Library





Who is Using the ADS?





Who is using the ADS?





Primary re-use of data





Access Vs. Content







Archaeology Data Service Linked Data

These Linked Data are made available as a direct result of the STELLAR project, a joint project between the <u>University of Glamorgan</u>, the <u>ADS</u> and <u>English Heritage</u>. Linked Data is a growing part of the Web where data is published on the Web and then linked to other published data in much the same way that web pages are interlinked using hypertext. The term Linked Data is used to describe a method of exposing, sharing, and connecting data via URIs on the Web. For more information go to <u>http://linkeddata.org/</u>. The ADS cannot give advice or support on using RDF, SPARQL or SPARQL Endpoints. For a full description of the ADS datasets used in this initial evaluation version of an ADS Linked Data store please see the ADS <u>STELLAR</u> Research Page. The STELLAR tools and templates are available from the <u>University</u> <u>of Glamorgan</u>.

Property	Value
?:coverage	<http: country="" data.ordnancesurvey.co.uk="" england="" id=""></http:>
?:description	The Archaeology Data Service (ADS) supports research, learning and teaching with high quality and dependable digital resources. It does this by preserving »more»
?:exampleResource	<http: 10.5284="" 1000230="" cobham="" data.archaeologydataservice.ac.uk=""></http:> <http: 10.5284="" 1000230="" cuxton="" data.archaeologydataservice.ac.uk=""></http:> <http: 10.5284="" 1000230="" data.archaeologydataservice.ac.uk="" eyhorne=""></http:> <http: 10.5284="" 1000230="" data.archaeologydataservice.ac.uk="" sittingbourne=""></http:> <http: 10.5284="" 1000230="" data.archaeologydataservice.ac.uk="" tutt=""></http:> <http: 10.5284="" 1000386="" data.archaeologydataservice.ac.uk=""></http:> <http: 10.5284="" 1000389="" data.archaeologydataservice.ac.uk=""></http:> <http: 10.5284="" 1000389="" data.archaeologydataservice.ac.uk=""></http:> <http: 10.5284="" 1000389="" data.archaeologydataservice.ac.uk=""></http:> <http: 10.5284="" 1000389="" data.archaeologydataservice.ac.uk=""></http:>
?:issued	2011-06-30
?:label	Archaeology Data Service Linked Data
?:license	Subject to ADO Turno of Coo and Automatic
?:publisher	Archaeology Data Service
?:rights	All rights reserved, copyright retained by original depositors
?:title	Archaeology Data Service Linked Data
?:uriRegexPattern	■ http://data.arunaeorogy.ea.aee.wee.ae.uw.+

Metadata [show]

This page shows information obtained from the SPARQL endpoint at http://data.archaeologydataservice.ac.uk/sparql/repositories/archives. This data is also available as <u>RDF/XML</u> and <u>Turtle</u>.

View the data in the following other browsers:

- <u>Disco</u>
- <u>Tabulator</u>

University of York legal statements I ADS terms and conditions

and the second second



The Impact of the ADS Project: a study and methods of enhancing sustainability

JISC



Develop and refine a range of methods to measure the costs, benefits, economic impacts and value of the ADS

CENTRE FOR STRATEGIC ECONOMIC STUDIES



ADS Value/Impact Analysis

Investment Return over 30 years?

Increase in returns on investment in data and related infrastructure arising from additional use facilitated by ADS



MLE

£1 investment provides up to £8.30 return



Outline

- Open Data
- National digital research data infrastructures
 - The Archaeology Data Service case study
 - Developments in other countries
- Interoperability and transnational research infrastructures
 - ARIADNE


National Digital Research Infrastructures



Netherlands: eDNA

- 2004-6 pilot study DANS & Leiden University
- 2007 eDNA
- 2 members of staff, plus DANS infrastructure
- 2011 17,000 fieldwork reports





Sweden: SND

- Swedish National Data Service, University of Gothenburg
- 2012 first archaeological archives, in collaboration with Uppsala University – GIS files, Östergötland
- Swedish Rock Art archives

ods



Germany: IANUS

- 2012 DAI scoping project
- Initial staff of two





United States: Open Context

- Alexandria Archive Institute
- 2007+

ads

- 2 staff members
- Primarily data publication tool
- California Digital Library provides long term preservation



United States: tDAR

• 2009+

ads

- Mellon start-up grant
- Based Arizona State University
- Digital Antiquity consortium
- 4+ staff members



Canada: Sustainable Archaeology

- 2010+
- Western & McMaster universities
- c.3 staff members
- Funded by Canadian
 Foundation for Innovation
 / Ontario Ministry of
 Research and Innovation
- Physical and digital infrastructure



ARCHAEOLOGY

Australia: FAIMS

- Federated Archaeological **Information Management** System
- 2012+
- University of New South Wales
- Funded by Australian government NECTAR programme
- Mobile apps

ARCHAEOLOGY DATA SERVICE

ads

Using instance of tDAR as repository infrastructure



Federated Archaeological Information Management System Project



On a roll, a sample screenshot from our app! Posted on 17 January 2013 by Brian Ballson-St

	A Postcard for FAIMS
	= First Sprint Demo
REAL RAIL BURNING	
	THANKS
	* *** nectar
	The University of NSW is proud
	to be in padnership with the
	National eResearch
	Collaboration Tools and
	Resources (NeCTAR) project to
	develop a comprehensive
	information system for
	archaeology, creating a central
	online platform for the capture.

On a roll, a sample screenshot from our app

Some pictures from Jordan Curious about what's

oming in the new year

exchange, analysis and storad

Outline

- Open Data
- National digital research data infrastructures
 - The Archaeology Data Service case study
 - Developments in other countries
- Interoperability and transnational research infrastructures
 - ARIADNE



Interoperability & Data Integration



Hansen, H.J., 1992 'European archaeological databases: problems and prospects', in J. Andresen et al. (eds) Computing the Past. Computer Applications and Quantitative Methods in Archaeology. Aarhus. 229-37.



ARENA: Archaeological Records of Europe: Networked Access.



ARENA

Archaeological Records of Europe - Networked Access

Welcome to the ARENA search portal.

Please select a flag from the right to start searching in your language

The ARENA search portal allows you to search for archaeological sites and monuments from six European countries: Demark, Great Britain, Norway, Iceland, Romania and Poland.



The content of this project does not necessarily reflect the position of the European Community, nor does it involve any responsibility on the part of the European Community.



CCS © ADS 1996-Edited by Jo Clarke, email Cite only: http://ads.ahds.ac.uk for this page

ARENA 2002-4

- Culture 2000 programme
- Six European partners
- Portal and exemplar archives
- Z39.50 & OAI technology







24/06/2013

http://archaeologydataservice.ac.uk

Archaeological Records of Europe - Networked Access The ARENA Portal

This is the search interface of the ARENA project. It allows you to search archaeological resources from six European countries by period, theme and place.

You can build your search by selecting below. Choose a Period (When)and a Theme (What), remembering to store your selection. You may wish to use the where option to select a place and refine your search.

Warning! Searches are limited to 5,000 hits. If your search exceeds this limit use the where option to narrow your search.

When You can choose to search for site within a certain period range. What Choose a type of monument/site from a list of archaeological themes Where Using a map of Europe choose the area you would like to search Search

Clear all values Help on searching Advanced search

The content of this project does not necessarily reflect the position of the European Community, nor does it involve any responsibility on the part of the European Community.

Choose what and when

Archaeological Records of Europe - Networked Access The ARENA Portal When

Select a period from the list below. Your choice will be highlighted on the diagram. For more information on the time span for each period hover your mouse over the period diagram



http://archaeologydataservice.ac.uk

DARIAH: ARENA2

2009-10 Technical demonstrator Web services architecture



ads



What: When: Where search



ARCHAEOLOGY DATA SERVICE



Archaeological Records of Europe - Networked Access

ads

Task ID=1359668677139

Arena 2 Archsearch Service [UK]:

CIMEC Web Service [Romania]:

Results: Listing top 0 of 0 records hold in our database relevant to this query.

Title See More Results Publisher

DANS Web Service [Netherlands]:

Results. Listing top 5 of 90 records hold in our database relevant to this query.

Title	Publisher
Het Merovingische grafveld te Gennep-Venzelderheide	DANS
Est, Plangebied Est, Inventariserend Veldonderzoek door mid	DANS
Kasteelruine Brederode te Santpoort, gemeente Velsen	DANS
Kasteel Schonauwen, gemeente Houten	DANS
Verdwenen huizen, tufstenen torens en houten straten rond d	DANS

See More Results



language: en | ro | nl

A DARIAH

ADS: DANS: CIMEC



Archaeological Records of Europe - Networked Acce

Council for British Archaeology (CBA) Council for British Archaeology (CBA) English Heritage, National Monuments Record English Heritage, National Monuments Record English Heritage, National Monuments Record

CICIS ARCHAEGLOGY CONDARIAH

Task ID=1359668677139

Arena 2 Archsearch Service [UK]:

Results: Listing top 5 of 99 records hold in our database relevant to this query

Title Civil Defence Headquarters Civil Defence Building OPPOSITE 57 LONDON WALL 1-6 OLD BAILEY 42 LUDGATE HILL BOOTHAM BAR TOILETS

See More Results

CIMEC Web Service [Romania]:

Results: Listing top 0 of 0 records hold in our database relevant to this query.

Title

See More Results

DANS Web Service [Netherlands]:

Results: Listing top 5 of 90 records hold in our database relevant to this query

Title	Publisher
Het Merovingische grafveld te Gennep-Venzelderheide	DANS
Est, Plangebied Est, Inventariserend Veldonderzoek door mid	DANS
Kasteelruine Brederode te Santpoort, gemeente Velsen	DANS
Kasteel Schonauwen, gemeente Houten	DANS
Verdwenen hulzen, tufstenen torens en houten straten rond d	DANS

Publisher

Publisher

See More Results

ads

ARENA2 is hosted by the Archaeology Data S

ARCHAEOLOGY| DATA SERVICE|



tanguage. en | ro | nt

	Home Browse Advanced search	Register or Log				
	Search [7]	New deposit				
asteel Schonauwen,	gemeente Houten					
Overview De	scription Data files (1)					
Archis Onderzoeksmelding	ser. 15559					
Title	Kasteel Schonauwen, gemeente Houten					
Alternative title	archeologische begeleiding aanleg roolsleuf en opgraving met beperkingen aanleg pompput RAAPRAPPORT 1327					
Creator	Kempen, P.A.M.M. van					
Contributor	H+ňninnen, K.					
Date created (ISO 8601)	2006					
(Copy)right holder	RAAP Archeologisch Adviesbureau	RAAP Archeologisch Adviesbureau				
Publisher	RAAP Archeologisch Adviesbureau					
Description	onderzoeksrapport					
Subject (ABR Complex)	Versterking - Kasteel					
Subject	PROSPECTIE LATE MIDDELEEUWEN GRACHTEN TUINEN KASTELEN NIEUWE TID					
Temporal (ABR)	Nieuwe tijd A: 1500 - 1650 nC Nieuwe tijd C: 1850 - heden Middeleeuwen taat A: 1050 - 1250 nC					

Europeana: CARARE



FASTIONLINE

- Established 2000
- AIAC/ LP Archaeology
- Database of excavations for classical archaeology
- 12,000 excavation reports

ads



arachne

- DAI central object database
- 300,000 images

CICIS

ARCHAEOLOGY

 Metadata mapped to CIDOC-CRM

iDALIMAGES RACHNE		Search Extended search
STARTSEITE	Font size 🗉 🖃	News
Alter i Alter i reserved fragmenter i fragmenter i fragme	kopine, Login: a free in the second secon	 Araches 3.9.1 Araches 3.6 Araches 3.6 Araches 3.6.1 Araches 3.6.2 Araches 5.6.2 Araches 5.6.3 Araches 5.6.3 IoALbookbrowser: new books available!
University of Cologne Archaeological Institute Abertus Magnus Platz 0-50823 Kól	or messages to foertsch@uni-koein.de	an Archaeological Institute bielskiallee 69-71

PELAGIOS

Classical Archaeology : Open Linked Data

ads



ARIADNE



Read More



About Ariadne

ads

ARCHAEOLOGY DATA SERVICE

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 availablity of archaeological digital datasets that all together span different periods, domains and regions; more are continuously created as a result of the increasing use of IT. The 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.



Hands-on modelling

Call for papers EAA2013

Open Humanities Awards

Press release

MTSR 2013

CHNT 2013

TPDL 2013

Digital Heritage 2013

Latest News

Apr 25 2013

Apr 17 2013

Feb 15

2013

Feb 14

2013

Events

Nov 19 2013

Nov 11 2013

Oct 28

2013

Sep 22 2013



Twitter

See All

See All

CAA 2014 22-25 Apr 2014, Paris- call for sessions, round tables & workshop proposals from 25th May to 14th July 2013. http://t.co/1x8JY4zMek

Follow Us

Jun 4 (5 days ago)

http://t.co/yR6ftsg1B1. VAMCT 2013 26-29 Sept, Delphi, Greece - abstract deadline extended to 30 June.

Jun 3 (6 days ago)

Call for Papers for TPDL Workshop "Practical Experiences with CIDOC CRM and its extensions (CRMEX)" - http://t.co /fQVcypAz58

May 31 (9 days ago)

RT kathrynpiquette Workshop: Research data for others: Licenses & tools for

What is **ARIADNE**

- ARIADNE is a EU-funded project aimed at integrating the European Research Infrastructures on archaeological datasets
- Its overall goal is to overcome the fragmentation of archaeological data repositories and to foster a culture of data sharing and re-using
- ARIADNE is managed by a partnership joining the excellence of European archaeology and technology, and is open to the collaboration of researchers, professionals and institutions from anywhere in Europe and abroad



The ARIADNE partnership

- 24 partners
- 16 countries
- Coordination
 - PIN
 - UoY-ADS





Why ARIADNE





Why ARIADNE

Willingness to share, use and re-use

- •400,000 downloads from the Archaeology Data Service (ADS) repository of "grey" literature (unpublished archaeological reports) in 6 years (5,500/month)
- •45,000 downloads from ADS in three months in 2010 (15,000/month)
- •94% of respondents to a SAA survey state they would use electronic data more, if they were accessible
- •ARACHNE visits: 82,000 in 2010, 140,000 in 2011
- Open Access for Science initiative



Why ARIADNE



COS

How to achieve integration

Data sharing requires:

- Suitability of someone else's data
- Interoperability of datasets
- Trust in data collected by others
- Guarantee of data "provenance"
- Suitable licensing agreements
- Suitable repositories



Looking to the future

- 50% of all journals now require data to be deposited in an archive
- Need a new metaphor for publication
- Blurring of publication and other forms of dissemination
- Data management not for its own sake no preservation without re-use





julian.richards@york.ac.uk

http://archaeologydataservice.ac.uk/



Follow us on Twitter: **@ADS_Update**



Befriend us on Facebook: http://www.facebook.com/archaeology.data.service



Professor Julian D Richards Director, Archaeology Data Service Department of Archaeology University of York The King's Manor York, YO1 7EP, UK Tel: +44 1904 323930 Fax: +44 1904 323902 Email: julian.richards@york.ac.uk http://www.york.ac.uk/archaeology/staff/ academic-staff/julian-richards/ **UoY disclaimer:** http://www.york.ac.uk/docs/disclaimer/e mail.htm