Open Data and ARCHAIDE

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University of York
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
ArchAIDE
Archaeological Automatic Interpretation and Documentation of Ceramics

https://doi.org/10.6084/m9.figshare.5179006.v1
doi:10.1038/nj7471-399b

- Scientists who share their data get a boost in citations.
- Piwowar & Vision examined citations of 10,555 papers on gene expression published 2000-09.
- Those for which the data were freely available received 9% more citations.
- Reuse and citations of the open data continued to rise for six years after publication.
- Early career researchers have good reason to share their data: “It will increase the impact of their research and that's good for their citation statistics and visibility.”
- Researchers should store their data in well-known, easily accessible repositories.
Reproducability

"The Open Research Data Pilot of the European Commission enables open access and reuse of research data"
ArchAIDE
Archaeological Automatic Interpretation and Documentation of cEramics

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

FAIR Principles

Make your data:
- Findable
- Accessible
- Interoperable
- Reusable

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://archaeologydataservice.ac.uk

http://datafairport.org/
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.
ArchAIDE
Archaeological Automatic Interpretation and Documentation of Ceramics

Archaeology Data Service/Internet Archaeology: ARCHAIDE partner and trusted digital repository

OPEN DATA ARCHIVE - OPEN ACCESS JOURNAL

Internet Archaeology has been publishing on the web since 1996 and is the premier e-journal for archaeology. Internet Archaeology is an open access, independent, not-for-profit journal. It publishes quality academic content and explores the potential of digital publication through the inclusion of video, audio, searchable data sets, full-colour images, visualisations, animations and interactive mapping. Internet Archaeology is international in scope, a journal without borders, and all content is peer-reviewed. Internet Archaeology is hosted by the Department of Archaeology at the University of York and digitally archived by the Archaeology Data Service. Internet Archaeology has been awarded the Directory of Open Access Journals Seal in recognition of our high standards in publishing best practice, preservation and openness.
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

http://archaeologydataservice.ac.uk
Economic Impact

Beagrie/ Houghton 2014:

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

[Image of coins with text: "WYF LAD LAC EY N A M"]

http://archaeologydataservice.ac.uk
Data Re-Use

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

Paul Tyers

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Cite this as: Tyers, P. (1996). Roman amphoras in Britain. Internet Archaeology, (1). https://doi.org/10.11141/ia.1.6

Summary

Introduction to Amphoras

Amphoras are pottery containers which were used for the storage and transport in the Greek and Roman world. Their importance to the original users was their contents, and to the archaeologist they offer a direct reflection of the large-scale movement of goods, principally foodstuffs, in the ancient world. While many are large, two-handled and with a rounded or spiked foot, there are exceptions to all these rules, and 'amphora' is not a typological category, but rather a functional grouping.

Atlas Pages

This paper is a survey of the principal classes of amphoras circulating in Britain during the Roman period (1st c. BC - 4th c. AD). The form, fabric, sources, contents and dating of each type are described in a series of Atlas Pages, accompanied by a series of computer-generated maps. The Atlas pages can also be accessed through a clickable map, based on the source of the amphoras, through a time-line, showing which types are circulating at any period, a visual index, as well as through a full text search. The supporting data include a bibliography and a database of the distribution of these amphoras in Britain.

Related publications

These pages are based on part of a forthcoming book, Roman Pottery in Britain, to be published by Batsford (London) in 1996.

Go to the Table of Contents

Features

- This article will particularly appeal to: those interested in Roman amphoras, distribution of Roman pottery in Britain.
- Key Features: Interactive map, interactive timeline, visual index, searchable database.
- Keywords: archaeology; Roman; amphoras; Britain; pottery; transport; foodstuffs; Atlas; database
2.12. Richborough 527 amphoras

**Typology**
A cylindrical amphora with thick rounded (almond-shaped) rim, two small loop handles and a short sloping neck; shallow horizontal rilling on the body above a solid spike or button shaped foot. Borgard and Gateau define several sub-categories of *amphores canneleés* which include the R527 and allied types (Borgard and Gateau 1991).

**Fabric and technology**
The fabric described by Peacock (1977) is hard and rough with lumpy cracked surfaces, generally greenish-grey or pink (*Munsell* 7.5YR 7/2 to 8/4) in colour; distinctive abundant volcanic inclusions, particularly large rounded 'lapilli' of colourless volcanic glass. The petrology indicates a source in an area of recent vulcanism and clay formations of marine origin. *Augst* TG 66

**Potters and stamps**
Some examples have small circular stamps on the upper body.

**Distribution**
Vessels claimed as R527 are recorded from Britain, western France, Provence and Italy. There is a single sherd from Lambaeis (Algeria), in the same fabric as those from London. Parker records R527 from two
Open Data in ARCHAIIDE: Amphorae database

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</tbody>
</table>
Africana 1 Piccolo

**Comments specific to this amphora type**
Equivalent to: NAF AM 1 of the National Roman Fabric Reference Collection (Tomber & Dore, 1998: 101)

**Visual characteristics**
The normal Tunisian fabric is brick red or orange in section (2.5YR 6/6), hard fired, granular, and the external surface has a white or cream (10YR 8/3) skin resulting from the use of saline water. This is often smoothed with quite carefully smoothed (so-called 'stecature': vertical tooling marks on the body). Material from the Carthage region is similar to central Tunisian products but is generally red in colour and lacks the visible inclusions of limestone or white reaction rims which are a common feature of the latter. It is very difficult to distinguish between known kiln products. The only ones that are easily recognisable come from Sullecthум (Salakta) and are characterised by a grey and red fracture, a myriad of small white inclusions, and a rough, grey external surface.

**Petrology**
North African fabrics are rather generic and poorly distinguishable from each other. In general, the inclusions are composed mainly of quartz, whose aeolian features are evident in the coarser grains (some hundred microns to more than 1 mm in size), that show a rounded shape and opaque surfaces. Sometimes the quartz is associated with variable amounts of calcareous microfossils and limestone fragments and other occasional metamorphic or volcanic components. However, the study of several Tunisian productions (mainly based on kiln wasters) has revealed the existence of some variability in the textural characteristics and the accessory petrographic components of the fabrics that allow them to be identified at the sites to which they were imported (Bonifay et alii, 2002; Capelli, 2005). 1) Sidi Zahruni The matrix is iron-rich and homogeneously oxidized. The (natural) temper is moderately to poorly-sorted. The lower granulometric fraction (< 0.15 mm) is
A download is a click on a link to something other than a webpage. File extensions include: .csv, .doc, .docx, .gif, .jar, .jpg, .jpeg, .mp3, .mp4, .mov, .odb, .odt, .pdf, .png, .ppt, .pptx, .txt, .wav, .wma, .wmv, .wpd, .xls, .xlsx, .xml, .zip but this is not an exhaustive list.

Page views within the archive
Click and drag in the plot area to zoom in

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

Totals since May 2011

Statistics start from May 2011 but if the values are zero to start with, they are not shown. Zero values after the start of use for the archive are shown.
Open Data in EPNet

RomanOpenData - Data sources

http://romanopendata.eu/
ARCHAIDE Re-use of ADS profile drawings: 2D to 3D
And then break the 3D models to create sherds again....
ArchAIDE
Archaeological Automatic Interpretation and Documentation of cEramics

Database implementation
ARCHAIDE Portal for Publications and Outputs
ARCHAIDE, 2019

Introduction

ArchAIDE is a European Union Horizon 2020 research and innovation programme which aims to create a new system for the automatic recognition of archaeological pottery from excavations around the world.

The archaeological partners of the consortium are the MAPPA Lab at the University of Pisa (coordinator) which has a relevant experience in mathematical and digital application in Archaeology, and archaeological communication; the Material Culture and Archaeometry research unit at the University of Barcelona, which is focused on promoting studies of material culture, especially on archaeological ceramics, and archaeometric approaches; the Digital Archaeology Laboratory at the University of Cologne, which manages ARACHNE, a highly structured object database in partnership with the German Archaeological Institute (DAI); and the Archaeology Data Service (ADS) at the University of York, which is the world-leading digital data archive for archaeology. The consortium involves also two private companies carrying out preventive and development-led archaeological investigations: Baraka Arqueólogos S.L., which is experienced in the study of archaeological ceramics, and Elements S.L which is experienced in the application of digital technologies related to ceramic studies. Finally, the consortium’s technical ICT partners are the Visual Computing Lab at CNR-ISTI, an institute of Italian CNR devoted to research on Visual Media and Cultural Heritage; the School of Computer Science at Tel Aviv University, which is ranked 20th in the Shanghai ranking of all Computer Science departments in the world; and the private software company, Inera s.r.l, which has experience in the field of protocols and web apps.

Every day, archaeologists from around the world are working to discover and tell stories around objects from the past, investing considerable time, effort and funding to identify and characterise individual finds. Pottery is of fundamental importance for the comprehension and dating of archaeological contexts, and for understanding the dynamics of production, trade flows, and social interactions. Today, this characterisation and classification of ceramics is carried out manually, through the expertise of specialists and the use of analogue catalogues held in archives and libraries. The goal of ArchAIDE is to optimise and economise this process, making knowledge accessible wherever archaeologists are working.
ARCHAIDE Portal for Publications and Outputs
ARCHAIDE, 2019

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Send e-mail enquiry

Resource identifiers
ADS Collection: 3369
DOI: https://doi.org/10.5284/1050896

How to cite this DOI

Downloads
- Archaide Mappings
- Archaide Triples
- Archaide Wordlists

Archaide Mappings

- catalan
- dutch
- french
- german
- italian
- portuguese
- spanish

powered by Ignitebox JS
ArchAIDE
Archaeological Automatic Interpretation and Documentation of Ceramics

Data re-use lifecycle

OAIS
Research

SIP

Accession
Preservation

Delivery preparation
Interface

Release

Publish

Deep Storage
Nearline backup

AIP

Delivery system
DIP

Picture from DLib
Availability of ARCHAIDE data sets via European research e-infrastructures
The ARIADNE Portal

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
ArchAIDE: Archaeological Automatic Interpretation and Documentation of cEramics

The ARIADNE roadmap

Dimensions of integration

1. Metadata richness and standardisation
   - Legacy metadata
   - General purpose, e.g. Dublin Core
   - Application profiles
   - Domain ontologies, e.g. CIDOC-CRM

2. Addressing complexity
   - Part-whole relations
   - Complex time-spatial relations
   - Managing different knowledge models

3. Richly Integrated thesauri
   - Pan-European integration of datasets
   - Multi-lingual tools and services
   - Extending the Conceptual Reference Model

Geographic extent and different languages

- Global
- Cross-country
- Country
- Region
- 1 site
Longjumeau (Essonne), ZAC centre ville - secteur S3 : route de Corbeil, rue de l'Hôtel des Postes : rapport de fouille

La ville de Longjumeau est connue archéologiquement par la découverte d'une nécropole de l'Antiquité tardive et du haut Moyen Âge, partiellement explorée entre 1930 et 1980, disposée au sud de l'église Saint-Martin, l'existence avérée de la voie romaine Orléans/Paris et la présence d'une villa d...

Recy (Marne) Déviation de Recy : Fouille d'une nécropole gallo-romaine : rapport de fouilles

La nécropole de Recy témoigne de différentes gestuelles funéraires. L'association d'inhumations, d'incinérations et de dépôts de vases au ler-Ier siècle après J. C., le tout en relation avec un (ou plusieurs) enclos quadrangulaires de la fin du Ier siècle avant notre ère (?) est à l'image...

Autoroute A406 (Ain) Contournement sud de Mâcon : Crotte, Grièges, Replonges, Saint-André-de-Bâgé : rapport de diagnostic

Le diagnostic archéologique réalisé sur l'emplacement du futur contournement sud de Mâcon (Autoroute A406). Sur ce tracé de 7 kilomètres, ce sont plus de 60 hectares qui ont été explorés. Plusieurs zones de vestiges d'ampleur et d'intérêt divers ont été mises au jour - Pour la préhistoire ré...

Montans (Tarn), aires de repos A68 - les Issarts et Sanbautan : [rapport de diagnostic]

Les sondages creusés sur l'extension de la future aire de repos de Sanbautan ont mis en évidence de nombreux drains dont la chronologie reste indéterminée. Deux petites cuvettes charbonneuses ainsi que deux structures de galets ont également été découvertes. Au sein de ces dernières, les tes...

Vichy (Allier) : 3-5-7 rue du 11 novembre : rapport de diagnostic

Type : Event/intervention resources Publisher : Institut national de recherches archéologiques préventives
La ville de Longjumeau est connue archéologiquement par la découverte d'une nécropole de l'Antiquité tardive et du Haut Moyen Âge partiellement explorée entre 1930 et 1980, disposée au sud de l'église Saint-Martin, l'existence avérée de la voie romaine Orléans/Paris et la présence d'une villa dont les découvertes mobilières et immobilières ont permis de mettre en évidence l'importance.

Avec la possibilité du développement d'une agglomération et d'une nécropole à l'âge de l'Antiquité tardive et durant le Haut Moyen Âge, l'intervention archéologique menée dans le centre ancien avait une importance particulière. Néanmoins, la fouille a livré peu de témoins immobiliers. À l'inverse, les témoins mobiliers, en particulier les monnaies, sont nombreux. Ces découvertes combinées autorisent à penser à une occupation conséquente dont il est cependant difficile de déterminer la nature.

Read more

Resource is part of

Dolia

Geographically similar

Thematicaly similar
Roman Amphorae: a digital resource

This website is an online and introductory resource for the study of Roman amphorae, rather than a definitive study of all amphorae for specialists. It encompasses most of the principal types manufactured throughout the Roman empire between the late third century BC and the early seventh century AD. It builds upon two works published in the 1980s (Peacock and Williams, 1986; Keay, 1984) and presents basic typological information for c. 250 forms. There are basically three main sections to the website: Amphora types, fabric types and bibliographic references. These are supported by additional background information on the resource and search tools. The information is organised in such a way as to allow a user to browse in a non-linear fashion, with hyperlinks between related concepts. For example, a user may wish to find an amphora type by name initially, then find amphorae which share a particular characteristic, and finally view which fabrics are associated with these amphorae. Alternatively, a user may be interested in a particular fabric and begin by searching the catalogue of fabric types before viewing particular amphorae of interest and finally associated references. A third option would be to search for a particular reference of interest and follow the links through to see which amphora are referred to by the specified reference. As such, there are a number of starting points and paths through the information resource.

- amphorae (storage vessels)
- Roman
- World, Roman Empire (former nation/state/empire) [7030347]

Metadata

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| Original ID | 463 |
| Language | English |
| Resource type | Artefact databases or image collections |
| Subject | amphorae (storage vessels) |
| Original Subject | AMPHORA |
| | Amphoras |
| | Archaeology |
| Dating | Roman |
| | -200 – 600 |
| | 43 – 409, Roman |
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| Type | Collection |
| Publisher | Archaeology Data Service [Organization] |
anfora

STCC=mutilo

amphorae (storage vessels)

Tolentino

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Responsible persons and organisations

Creator: Regione Marche [Organization]
Contributor: Regione Marche [Organization]
Owner: Regione Marche [Organization]
Legal responsible: Regione Marche [Organization]
Scientific responsible: Regione Marche [Organization]
Technical responsible: Regione Marche [Organization]

Getty AAT Subjects: storage vessels en, ánforas en, amfora es, amphora en, anfora it, amphora la, anfora lt, amfora en
ANFORA

Tipo
anfora

Autore
civiltà picena motivo dell'attribuzione: analisi stilistica

Descrizione
Anfora di ridotte dimensioni. Corpo globulare con anse impostate sulle spalle assai espanse, anse ad anello nastriformi, lungo collo cilindrico con labbro appena espanso in fuori, piede su disco piatto

Datazione

Materia e tecnica
impasto/ lisciatura

Misure
altezza 15

Localizzazione
(MC) Tolentino

Collocazione
Castello della Rancia - indirizzo: località La Rancia - Museo Civico Archeologico "Aristide Gentiloni Silverj"

Identificatore
1100138291

Proprietà
proprietà Ente locale

RISORSE COLLEGATE

Scheda del bene contenitore

Pagina del museo
Summary

• Digital data preservation has a cost – but data collection / data loss is more expensive
• Open data is re-used – and studies show research benefit and economic return
• Archaeology is also expensive – and destructive.
• Projects need to support the data re-use life cycle
• Projects should use existing research infrastructures and digital repositories
• Benefit from multiple “shop windows”
Thank you for listening

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The views and opinions expressed in this presentation are the sole responsibility of the authors and do not necessarily reflect the views of the European Commission.