SEADDA

Saving European Archaeology from the Digital Dark Age

Archive Once, Reuse Everywhere:

The Archaeology Data Service and International Ecosystems for Archaeological Data

Open research data in Humanities - Barcelona, 20 June, 2024

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ADS ARCHAEOLOGY DATA SERVICE

UNIVERSITY of York

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Where we going to today…

Structure of the Talk

- Introduction to the Archaeology Data Service
- The ADS as part of a national and international ecosystem
- ARIADNE RI: international community of practice and a data portal for resource discovery
- Strengthening our community: capacity building and the SEADDA COST Action
- Making our community sustainable: the SHADE COST Innovators Grant
- New frontiers: the new MAIA COST Action for AI and Archaeology
- Solving one problem and creating another: pragmatic decisions about open digital data
- Conclusion

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About the ADS

The Archaeology Data Service

- Set up in 1996
- Based at the University of York

CORE TRUST SEAL

Mission

Supporting research, learning and teaching with free, high quality and dependable digital resources

- Preserve data through active curation
- Free online access to data
- Guidance and support for data creators
- Research

http://guides.archaeologydataservice.ac.uk

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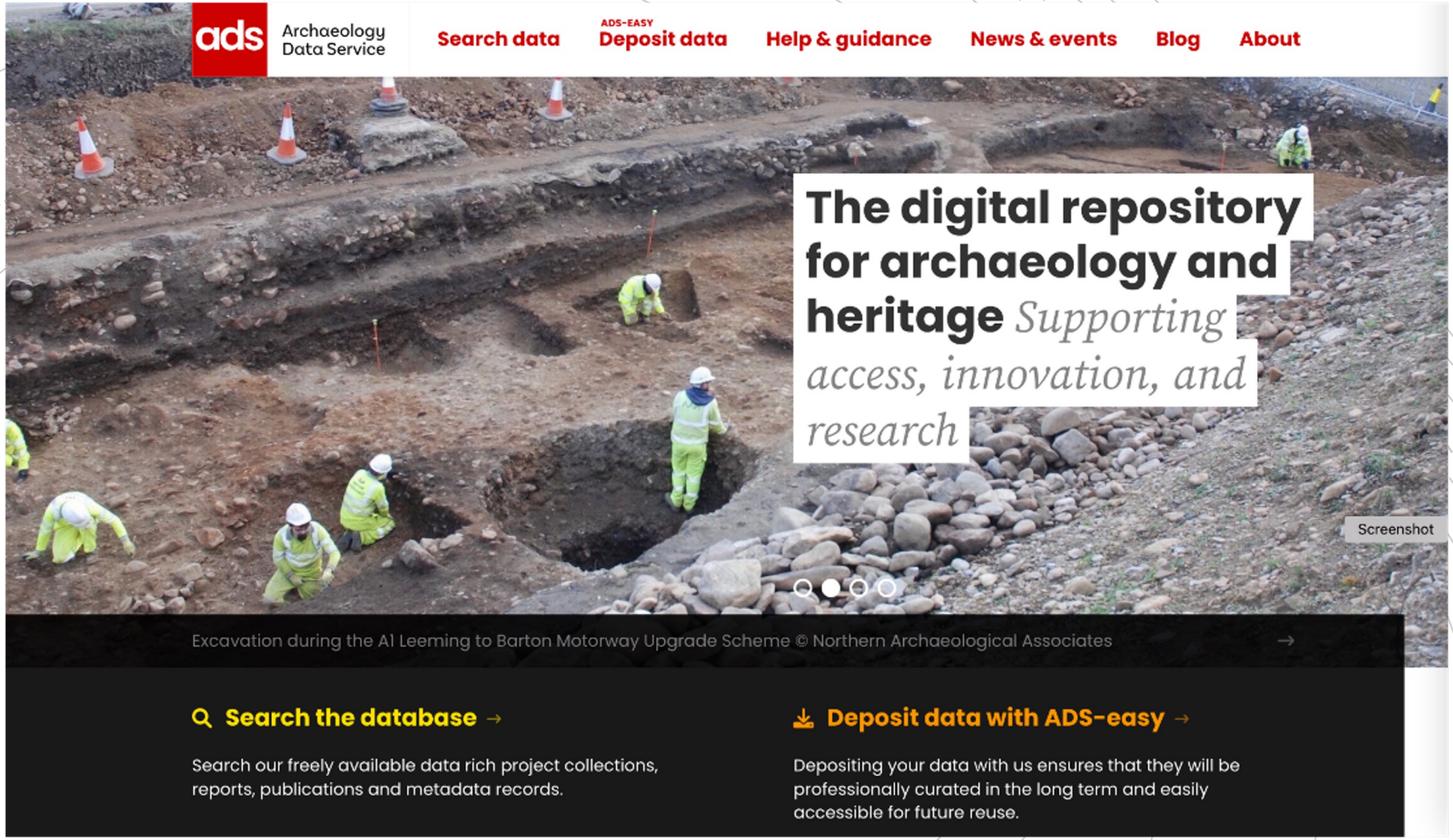
About the ADS



https://archaeologydataservice.ac.uk

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About the ADS

What do we disseminate?

ArchSearch: Online catalogue indexing over 1.4 million metadata records including:

- ADS collections
  - 3,000+ Project Archives
  - 90,000+ Unpublished Fieldwork Reports

Metadata aggregated from over 30 UK national and regional historic environment inventories.

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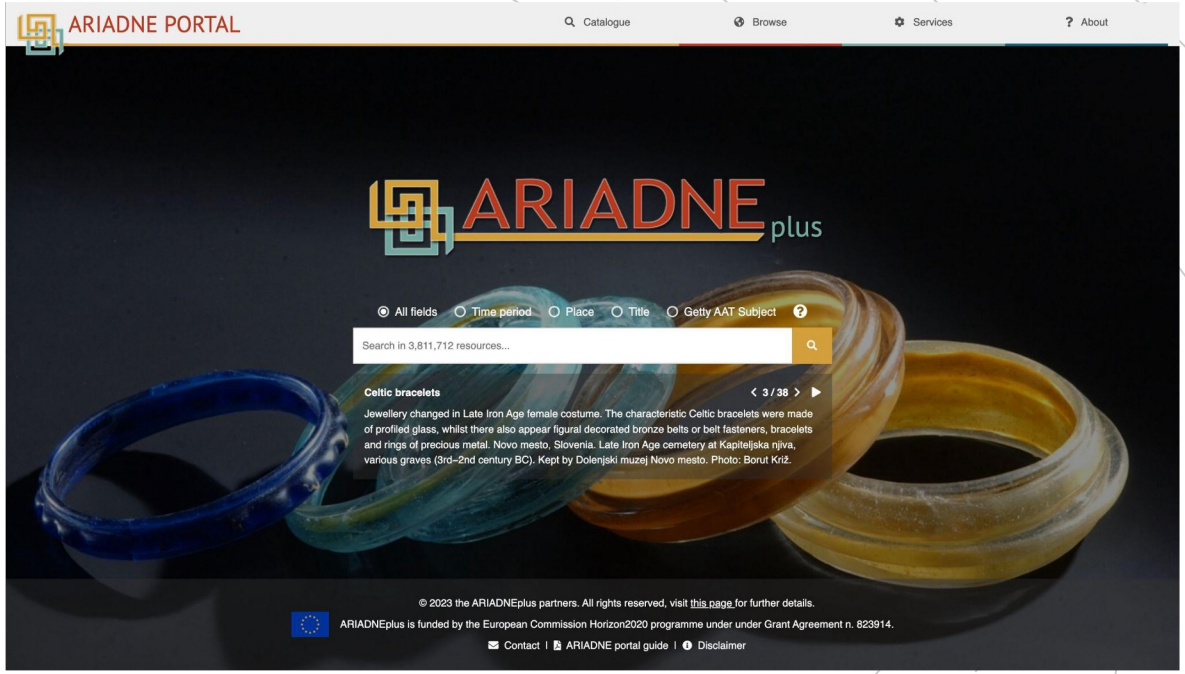
What do we disseminate?

Also disseminate what we aggregate to other, larger aggregators in our ecosystem such as *Europeana, and for archaeology the* ***ARIADNE Portal…***



https://portal.ariadne-infrastructure.eu/

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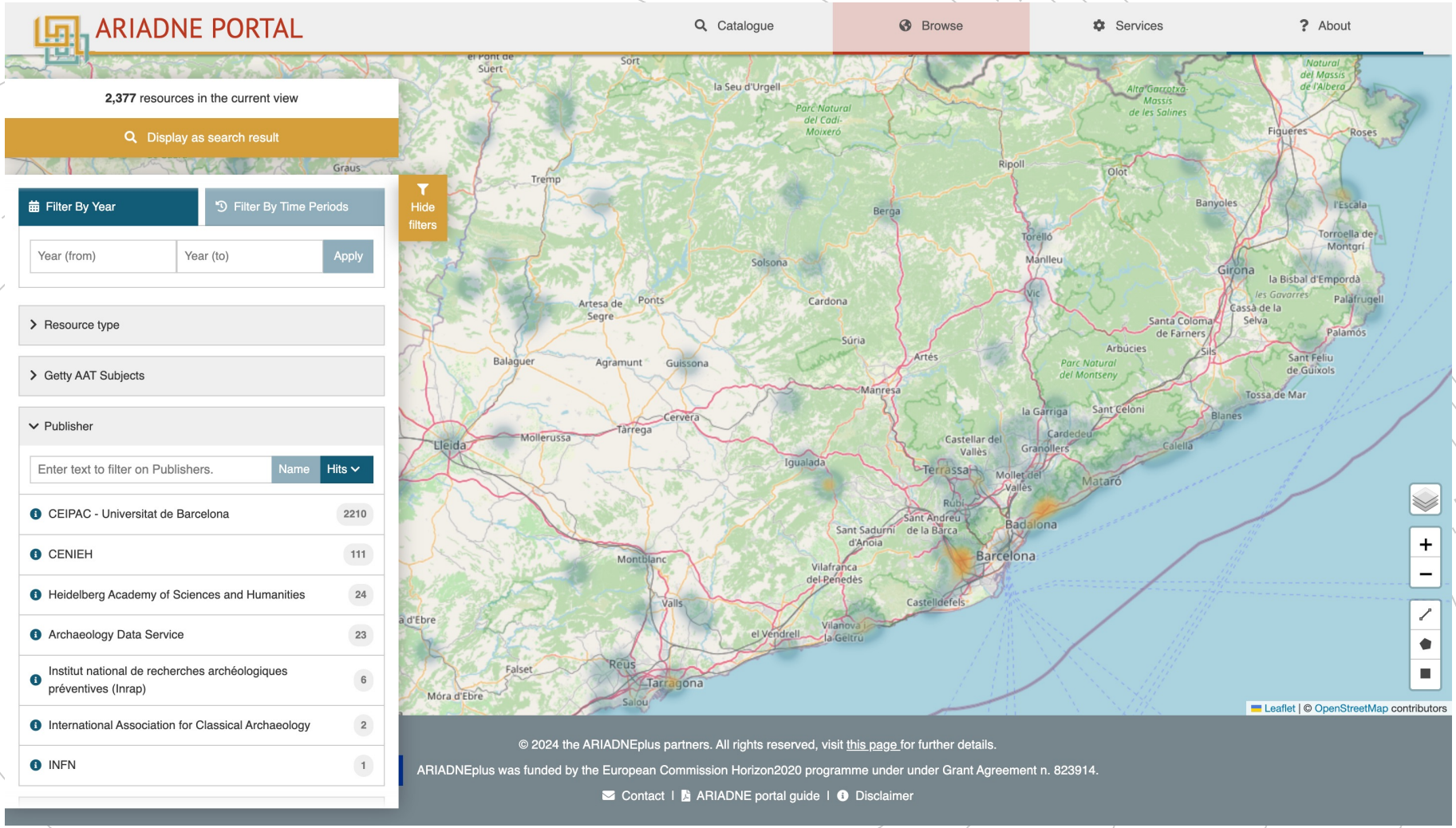
ARIADNE



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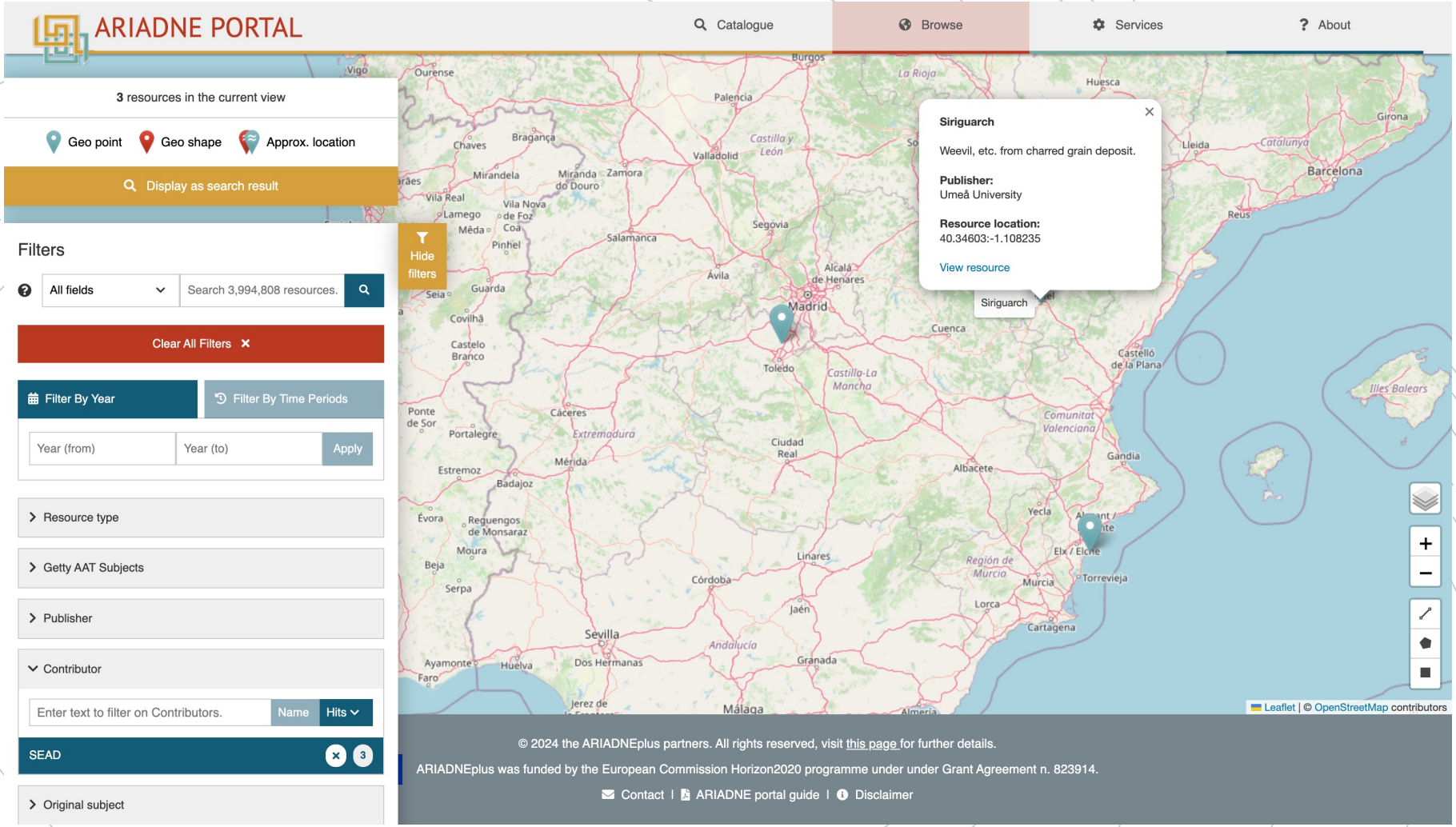
ARIADNE



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ARIADNE as a Community

Internal Capacity Building

- Paper was given in 2015 by ARIADNE partners from Slovenia and Ireland talking about “haves and have nots” when it comes to having a safe and acceptable place for their archaeological data in the long term
- Plans were made to offer data management workshops to partners in their own countries - Austria and Slovenia both accepted

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ARIADNE as a Community

National Data management workshops

Local ARIADNE partners worked hard to make sure governmental and institutional stakeholders attended the workshops, and they took on understanding and presenting the state of the art for sustainable, open archaeological data in their country.

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ARIADNE as a Community

Data management workshops

Level of interest was much higher than expected:

- Pressure from funders to deposit data into an open repository
- Pressure from institutions to deposit data into an open repository
- Funding available; but no guidance
- No appropriate options for archaeological data

- Conversations continued about how to take expertise within ARIADNE and collaborate beyond current network
- Working together was going to be critical to moving forward

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Digital Archaeological Data

Challenges for Archaeology

- Archaeological data often derived from non-repeatable interventions
- Digital data more fragile and subject to obsolescence
- Risk losing a generation of research – **Urgency!**

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COST Action SEADDA :

Saving European Archaeology from the Digital Dark Age

Funding (four years) for networking: meetings, training sessions, scientific missions, open access publications, with members representing 35 countries

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Key Objectives

- Coordinate information collection to understand the current state-of-the-art regarding the preservation, dissemination and re-use of archaeological data.
- Develop a common understanding of international best practice for preservation, dissemination and re-use of archaeological data
- Foster knowledge exchange around international best practice for preservation, dissemination and re-use of archaeological data

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Working Group 1

Stewardship of archaeological data

Objective: To bring together members with varying levels of experience to share their successes and challenges around the stewardship of archaeological data to create a sub-network.

Practical and ethical considerations will be explored:

- Encouragements and resistances to sharing data and making it openly accessible within archaeology
- Who should be responsible in short and long-term for the preservation of that data?

Starting point to begin or progress dialogue in their region or country.

National workshops!

Norway, Turkey, Portugal, Ireland, France, Serbia, Romania and Greece

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Working Group 2

Planning for Archiving

Objective: To identify the practical and technical issues surrounding the creation of an appropriate repository for archaeological data

- Understanding hardware and software options
- Management structures
- Training of archivists

The WG identifes existing best practice, changing future needs, and pragmatic technical and structural solutions.

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Working Group 3

Preservation and Dissemination Best Practice

Objective: Understand current international best practice for archiving and dissemination, and implementation by existing repositories.

- Open Archival Information System (OAIS) model
- The FAIR Principles
- Repository accreditation
- Cost modelling
- Dealing with data types

Will bring together archaeological digital archivists to share current practice, and survey future trends to understand the changing archaeological and digital landscapes (domain and technology watch).

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Working Group 4

Use and Re-Use of Archaeological Data

Objective: To understand how to optimise archives and interfaces to maximise the use and re-use of archaeological data. To explore how archaeological archives can better respond to user needs, and ways to document and understand both quantitative and qualitative re-use.

- Explore barriers to re-use, such as IPR and licencing
- Explore design of underlying data structures and their interfaces

Will focus on initiatives like the FAIR Principles and technologies that improve and optimise searching, issues around how data is created, organised and disseminated, different options for interface design, and developing best practice around qualitative re-use.

State of the Art Publication

Open Access Publications

- ***Internet Archaeology*** SEADDA themed issue *Digital Archiving in Archaeology: The state of the art*
- Papers representing the current state of archiving in 34 regions, nations and countries.
- *Is it the Thought that Counts? An evaluation of digital archaeological data archiving in Catalonia* by Sabina Batlle Baró
- Other relevant SEADDA papers!

Digital Archiving in Archaeology: The State of the Art. Introduction

Julian D. Richards, Ulf Jakobsson, David Novák, Benjamin Štular and Holly Wright

Cite this as: Richards, J.D., Jakobsson, U., Novák, D., Štular, B. and Wright, H. 2021 Digital Archiving in Archaeology: The State of the Art. Introduction, *Internet Archaeology* 58. https://doi.org/10.11141/ia.58.23

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The advent of ubiquitous computing has created a golden age for archaeological researchers and participating publics, but the price is a digital resource that is now in jeopardy. The archaeological record, in digital form, is at risk not simply from obsolescence and media failure,

https://intarch.ac.uk/journal/issue59/2/index.html

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Synergy

SEADDA ran concurrently with the second development phase of ARIADNE (ARIADNEplus) which created opportunities to amplify and expand the work of both initiatives simultaneously

- The timing was not intentional, but the potential for synergy between the capacity building remit of SEADDA and the innovation remit of ARIADNEplus was an opportunity for close collaboration
- It gave SEADDA members not funded partners in ARIADNEplus a tangible way to use their new capacity to participate in cutting edge research, further strengthening the community.

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SHADE

COST Innovators Grant:

Sharing Heritage and Archaeological Data Effectively (SHADE)

With the formation of the ARIADNE RI, SEADDA members from COST countries (and beyond) not associated with Horizon Europe will now be able to participate as part of the consortium, along with any other relevant international funding initiatives. SHADE will ensure the work of SEADDA and the investment made by its members will not lose the momentum gained as we move forward together.

The ARIADNE RI is now registered as a not-for-profit AISBL in Brussels, and SHADE is helping the ARIADNE RI create a business plan for long-term sustainability.

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New COST Action!
Managing Artificial Intelligence in Archaeology (MAIA)

The main objective of MAIA is to develop best practices and leverage the resources necessary to ensure archaeology can engage with AI in a robust and comprehensive way. This includes ensuring the resources and knowledge necessary to use AI in archaeology are FAIR, collaborative, and ethical.

WG1 - State of the Art: AI and Archaeology
WG2 - Digital Comparative Collections and AI Training Data for Archaeology
WG3 - AI and Archaeological Research

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Should we digitise?

We receive mixed messages when it comes to digitising humanities resources and making them open:

- General idea that we are living in a digital age where everything should be digitised and made available online.
- Pressure on institutions and organisations to digitise their resources, but very costly and time consuming, often excluded from funding (usually focussed on innovation).
- The choice of what to digitise and why is often haphazard, with little attention paid to setting priorities for what should be digitised vs. where there is funding…
- Digitising an analogue resource is still seen as somehow ‘preserving’ that resource, but little attention to how that digital proxy needs to be preserved.

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Should we digitise?

So, what *should* we digitise and make open, and why…

- When you digitise something, you have created something new, which now also needs to be preserved, so you are solving one problem and creating another. Interfaces come and go, but the digital data has its own preservation needs.
- I would argue that we shouldn't digitise things where the analogue, primary resource is safe and being actively preserved. We should link to them instead…
- We should prioritise the preservation of resources that only exist in digital form, or where an analogue resource is in danger of being lost or destroyed.
- We should prioritise the preservation of digital syntheses that represent significant research effort, such as databases and algorithms created using AI.
- New digitisation should only be undertaken when the resources that will be created can be made sustainable.

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Conclusion

Archive once…reuse everywhere

- Think about your priorities: understand what you are digitising and why…
- Find the safest place for your data in the long term and help ensure that place has community support and advocacy (ask hard questions about whether the safest place for the digital data is where that data is currently…because it may not be…).
- Learn to let go of your interfaces: interfaces are meant to die and be replaced every few years, it's the data that is important and needs needs long-term care.
- Ensure the metadata associated with that data is robust and can be applied in as many reuse scenarios as possible.
- Understand and take advantage of your digital ecosystem to maximise open reuse, combining and recombining data in different ways for different uses.

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Conclusion

Archive once…reuse everywhere

Creating open research data is 10% a technology problem and 90% a consensus-building, human problem.

Build your community so if you are trying to progress making data more open, you are not an isolated voice in your institution or organisation.

When you can speak with one voice as a community you can create sustainable change.

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Thank You!!

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