ARIADNE
The European E-Infrastructure for FAIR Digital Archaeological

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The ARIADNE project

• ARIADNE: Research Infrastructure project aiming at the integration of archaeological datasets in Europe
• Four years’ duration, from 1/2/2013 to 31/1/2017
• 23 partners from 17 countries
• Goals:
  – Overcome the fragmentation of archaeological datasets
  – Foster/support interoperability and standardization
  – Enable resource discovery with faceted searches based on time (“when”), place (“where”) and subject (“what”)
  – Make archaeological data discoverable, accessible, understandable, usable
  – Connect datasets in an overarching catalogue (the Registry) accessible via the ARIADNE Portal
The initial ARIADNE Partnership

- Coordinator
- Partner
- Associate
Accessing the registry via the ARIADNE Portal

http://portal.ariadne-infrastructure.eu
A page of the result list with no search parameters, showing the total amount of datasets registered (little less than 2 million)
Accessing the source datasets

1. Search the registry
2. Choose one result
3. Follow the link to the original repository
4. Access the source data
Above and beyond ARIADNE

• Proposal for an ARIADNEplus extension
• Goal: make archaeological data FAIR
• Now with 41 partners to cover all of Europe
• Improved coverage of scientific datasets
• Ready for the European Open Science Cloud
• Implementing Virtual Research Environments
• Advanced services for users:
  • GIS integration across national archaeological maps
  • Natural Language Processing to enrich report metadata (already developed within EOSCpilot as a science demo)
  • Linked Open Data
For archaeological data to be | The integrating infrastructure must be
---|---
Findable | **Inclusive**: all key data sources participate in the integrating effort and effective search tools are in place
Accessible | **Linked**: source data directly linked to the infrastructure catalogue in a distributed/integrated system
Interoperable | **Standardized**: the infrastructure provides metadata in a homogenous way  
**Operational**: the underlying technology provides cross-datasets processing functionalities
Re-usable | **Functional**: services tailored to archaeological research questions are available  
**Trustworthy**: data suitability to research questions, data quality and provenance information are guaranteed by rich metadata
Enlarged partnership

ARIADNE
ARIADNEplus
Improved scope

- Bio-archaeology, environmental arch., archaeometallurgy, dating, etc.
- Dendrochronology
- Palaeo-anthropology
- Prehistory
- Modern Age
- Contemporary Age

The ARIADNEplus Integration Space

The ARIADNE Integration Space
Creating the ARIADNEplus KOS

Thematic group

KOS Team

Application profile 1 assessment

The KOS

ARIADNEplus CRM extensions

Vocabularies, time periods, gazetteers

Thematic group 2

KOS Team

Application profile 2 assessment

Mappings

Mappings
Preparing the data

Ingestion → Cleansing → De-duplicating, normalizing, → Storing
Setting up the digital infrastructure
Creating a research ecosystem...

- Stakeholders
  - Extending & supporting the ARIADNEplus Community
  - Policies & Good Practices for FAIR data management

- Archaeological partners
  - Integrating the Datasets of the Arch. Research Community
  - Extending the ARIADNEplus Data Infrastructure (ADI)

- KOS Team
  - The ARIADNEplus KOS

- IT Team
  - Data integration & interoperability (Making the ADI)

- IT Infrastructure Operation and Management
  - Innovative Services

- Services deployment
  - VRE

...and a Virtual Research Environment

1. Searching for the data

2. Retrieving the dataset list

3. Collecting selected data from DIGILAB local repositories

4. Placing the relevant data in the VRE

5. Selecting services

6. Launching services in the VRE