

## THE ARIADNEPLUS PROGRAM INTEGRATING EUROPEAN ARCHAEOLOGICAL DATASETS WAS LAUNCHED

ATTILA KREITER

*ARIADNEplus is a research infrastructure funded by the European Commission's H2020 program<sup>1</sup>. It is a four-year program launched in January 2019. The ARIADNEplus kick-off event was held in Prato between 11 and 14 February, 2019. The coordinator of the project is Franco Nicolucci at PIN (Educational and Scientific Services for the University of Florence, Prato Campus of University of Florence).*

ARIADNEplus is the continuation of the successful ARIADNE project (Advanced Research Infrastructure for Archaeological Dataset Networking in Europe) (2013-2017). The aim of ARIADNEplus is the integration of European archaeological repositories with a searchable catalogue of datasets through the ARIADNEplus Portal (<http://portal.ariadne-infrastructure.eu/>). The primary aim of the program is to include 'grey literature', unpublished reports, maps, drawings, images, interdisciplinary data and other kinds of archaeological information, which represent considerable amount of information but is difficult to access in the different countries' museums. Access to this information is essential for archaeology professional and heritage institutions.

From Hungary the National Museum took part in the ARIADNE program and as a result developed the Hungarian Archaeology Database (<https://archeodatabase.hnm.hu/en>). During the development of the database we followed the basic principle that archaeological documentation is a part of national heritage, the exclusive written proof of the results obtained in relation to a particular site and its assemblage. Therefore, paper-based documentation should be protected, old documentation digitised, and documentation for each site should be kept together and the long-term archiving and accessibility of digital files should be ensured. Storing documents on paper or on CD / DVD is not considered archiving as it does not provide long-term preservation and access.

The ARIADNEplus program involves 41 partners from 23 European countries, the United States, Argentina, Israel and Japan. The program continues the integration of datasets into the Portal. The Portal does not aggregate or move data, only the metadata of the datasets, which are maintained and controlled by their owners. Files are also kept by the owner institutions and can be accessed according to the conditions of the partners' databases.



*Fig. 1.: The kick-off meeting started on the afternoon of 11 February*



*Fig. 2.: Members were divided into smaller working groups*

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At present, there are about two million datasets catalogued in the Portal but each dataset may comprise, for example, an entire report with related images, drawings, or a complete database. The catalogued content types range from individual finds to LIDAR data.

ARIADNEplus will increase the quantity of accessible metadata and documentation, and extend the geographic and temporal coverage of data. It is also aimed at incorporating additional information on scientific analyses.

The ARIADNEplus work plan includes proposing relevant policies and strategies for data such as the application of the FAIR principles and the certification of repositories. It will also address some fundamental issues, e.g. developing guidelines for the creation, management and sustainability of archaeological repositories. Traditional repositories are in crisis in Europe, not only in terms of preservation but also in ensuring access. ARIADNEplus opens new vistas in providing access to data, which is essential for heritage managers, decision makers and heritage institutions.

Most of the technology employed in ARIADNEplus concerns data integration, the creation of a searchable catalogue and the development of a Linked Open Data service. Data services play a key role in the program. These range from tools for data analysis (e.g. for data mining and Natural Language Processing) and data synthesis, (e.g. visualization of images and 3D, locating data on a map or in time etc).

ARIADNEplus is also aimed at consolidating a comprehensive, active and informed community through workshops and sessions at events. The ARIADNEplus training plan also envisages specific training activities. In case of need, tutorials and training workshops will also be available on individual projects. Within the framework of the ARIADNEplus program, the Hungarian National Museum will continue to develop the contents of the Archaeological Database, with particular regard to the results of scientific studies and their documentation.



*Fig. 3.: The ARIADNEplus program involves 41 partners from 23 European countries*

As a part of the ARIADNEplus program, the Hungarian National Museum continues to develop the contents of the Archaeology Database, with particular regard to the results of interdisciplinary analyses and their documentation. The Archaeology Database also welcomes Hungarian museums to join the database with their data and documentation to make them available online and/or to archive them. The Archaeology Database is a repository that ensures the long-term preservation of documents, the virtually unlimited expansion of archives, and the online access of archaeologists. Further advantage of the database is that the data and documentation of each site can be accessed through one platform and virtually there is no size limit for the documentation to be deposited.

At present the Archaeology Database provides metadata on 59,604 archaeological sites with almost 6,000,000 search terms and almost 1,170,000 downloadable files. However, in order to protect archaeological sites, spatial data and documentation for sites can only be accessed with elevated privileges (<https://archeodatabase.hnm.hu/en/how-it-works>).