UNDERSTANDING AND EXPANDING CAPACITY IN ARCHAEOLOGICAL DATA MANAGEMENT BEYOND WESTERN EUROPE

Theme: 3. The new normality of heritage management and museums in post-Covid times **Author:** Holly Wright

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The COVID-19 pandemic has exacerbated or made more visible many known inequalities across borders and societies. This includes access to archaeological resources, both physical and digital. As both the creators and users of archaeological data adapted to working from their homes, cut off from artefact collections and research data siloed within organisations and institutions, the importance of making data freely and openly available internationally became even more pronounced. The ARIADNE infrastructure (ariadne-infrastructure.eu) for archaeological data, and the SEADDA COST Action (seadda.eu) are working to secure the sustainable future of archaeological data across Europe and beyond, in ways that are Findable, Accessible, Interoperable and Re-usable (FAIR). Experience within the ARIADNE partnership during the pandemic was largely positive, with many partners able to carry on as usual with accessing their digital resources, emphasising what is possible, while also emphasising what is not achievable across archaeology, due to lack of capacity. ARIADNE and SEADDA invite papers discussing the challenges, opportunities and lessons learned across all aspects of archaeological data management during the pandemic, and how it may change and inform our best practice going forward. We particularly invite papers from outside of Western Europe on how the COVID-19 pandemic created barriers or opportunities for accessing archaeological resources, so that we may better understand capacity building during a post-COVID era.

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FROM THE 2ARCHIS ARCHAEOLOGICAL INFORMATION SYSTEM TO DATAREPOSITÓRIUM: CASE STUDY OF THE ARCHAEOLOGICAL COINS OF CASA DA BICA

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To promote open science and data reuse, it is necessary to have data available in open repositories that guarantee their accessibility and permanence, while facilitating their reuse.

Data classified as FAIR (Findable, Accessible, Interoperable and Reusable) must follow guidelines that ensure the use of an appropriate metadata scheme, persistent identifiers, well-defined vocabularies, procedures to standardize and improve data quality and sustainable file formats. We will present the methodology used for recording the coin findings from an archaeological excavation carried out by the Archaeology Unit of the University of Minho (UAUM) in the intervention of Casa da Bica, starting with the recording of data in the UAUM's 2ArchIS information system and ending with its availability in the scientific repository "DataRepositóriUM".

We will also present some works of visualization and research as examples of the reuse of these data sets, which can be wider when they are integrated in structures of greater visibility like ARIADNE.

Keywords

Archaeology, Data Base, Data Repository, Bracara Augusta, Coins

WAYS AND CAPACITY IN ARCHAEOLOGICAL DATA MANAGEMENT IN SERBIA

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Over the past year and due to the COVID-19 pandemic, the entire world has witnessed inequalities across borders and societies. They also include access to archaeological resources, both physical and digital. Both archaeological data creators and users spent a lot of time working from their homes, away from artefact collections and research data. However, this was the perfect moment to understand the importance of making data freely and openly available, both nationally and internationally.

This is why the authors of this paper chose to make a selection of data bases from various institutions responsible for preservation and protection of cultural heritage, in order to understand their policies regarding accessibility and usage of the data they keep. This will be done by simple visits to various web-sites or data bases. They intend to check on the volume and content, but also importance of the offered archaeological heritage. In addition, the authors will estimate whether the heritage has adequately been classified and described and also check whether data is available in foreign languages. It needs to be seen whether it is possible to access digital objects (documents and the accompanying metadata), whether access is opened for all users or it requires a certain hierarchy access, what is the policy of usage, reusage and distribution etc. It remains to be seen whether there are public API or whether it is possible to collect data through API. In case that there is a public API, one needs to check whether datasets are interoperable or messy, requiring data cleaning.

After having visited a certain number of web-sites, the authors expect to collect enough data to make a satisfactory conclusion about accessibility and usage of Serbian archaeological data web bases.

Keywords

archaeological data, data, archaeology, data management, Serbia, capacity

PRESERVING HISTORIC BUILDING DOCUMENTATION FOR REUSE AT THE NATIONAL COLLEGE OF ARTS, PAKISTAN

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Like many countries around the world, Pakistan was forced to go into a COVID-19 national lockdown in March 2020. While this confined most people to their homes, it also had the unintended consequence of catapulting many institutions into embracing going digital. At the National College of Arts (NCA), Pakistan's oldest art school, this meant embracing online tools and digital resources that had previously been resisted or underutilized in the teaching of art, design, and architecture. The experiences of lockdown have highlighted inadequacies and inequities within our systems, and as Pakistan returns to normal there is a renewed will to maintain the momentum gained during the pandemic, and an increased realization of the need for developing and sustaining digital infrastructures. The National College of Arts Archives collect and preserve the records, manuscripts, and other artefacts of historical and archaeological significance at the National College of Arts. From March 2021, the NCA Archives are initiating a project to collect, preserve, and digitize historic building documentation created at the NCA over the past 145 years. This paper will follow this process and document the NCA Archive's attempt at creating a Findable, Accessible, Interoperable, and Reusable (FAIR) database of historic building documentation in Pakistan. It will summarize the experiences of the six-month pilot project, including opportunities that have arisen in the aftermath of the Covid-19 pandemic, and in light of the Government of Pakistan's ongoing Digital Pakistan initiative. The paper will also document and analyze the difficulties and hurdles that might emerge during the course of the project as the NCA Archive's digital infrastructure is built from the ground up in a post-colonial setting and a post-COVID world.

Keywords

FAIR data, historic building documentation, building archaeology, Pakistan

INJECTED BY INFORMATION: A SILENT (R)EVOLUTION IN CZECH DIGITAL ARCHAEOLOGY

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Every crisis period puts pressure on the individual components of traditionally functioning systems. This effect is well known from archaeological contexts, where external influences are often viewed as factors motivating the development. Currently, archaeology has an opportunity to view this situation from the opposite perspective, itself facing new challenges linked to the reduction of social contacts, forcing us to maximise the search for innovative solutions. We believe that crisis situations may indeed be the motivation for development. However, often it is imaginary fire-fighting that leads only to unsustainable solutions. We verified this case well after the catastrophic flood of Prague in 2002 and in other unforeseeable events in the past. The event forced us to make anticipated but only partially prepared changes that significantly moved the field forward. Yet, as a result of rapid decisions taken under pressure, we are still dealing with some unintended consequences. COVID-19 found us in a different situation. It has demonstrated the importance of conceptually building robust information systems, which are a welcome aid at any time, but are now becoming a necessity. Due to long-term systematic work, the new situation did not result in any fatal disruptions or problems and in turn helped the full establishment of the large research infrastructure Archaeological Information System of the Czech Republic (AIS CR). The paper analyses the situation in which the current crisis has caught Czech archaeology and how much it motivates changes in the disciplinary routine, or whether the causes of the development can be found in other aspects of archaeological data management practice. We conclude that Czech archaeology was mostly well prepared, and the main change is noticeable in the higher demand for accessible digital archaeological information by the general public.

Keywords

archaeological archiving, digital archiving, research infrastructures, crisis management, sustainability

ARCHAEOLOGICAL MAP OF BULGARIA IN ARIADNEPLUS - AN OPPORTUNITY FOR BETTER POST-COVID TIMES

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On one hand, COVID-19 world pandemic showed the people vulnerability and inability of face-to-face communication and ideas sharing. Through this point of view digital data that is Findable, Accessible, Interoperable and Re-usable (FAIR) showed its added value in even higher extent. On other hand, online communication became a daily routine enabling easier access of all interested parties regardless of their location. The latter helped focusing on particular tasks difficult to accomplish otherwise. The situation in Bulgaria concerning improving state-of-the-art of site and monument dataset "Archaeological Map of Bulgaria" is still in a work process based on online communication with interested participants. Scientists from the National Archaeological Institute with Museum at Bulgarian Academy of Sciences are responsible for all that. Legacy data available beyond local repositories using FAIR principles is a main focus in the development and up-to-date improvement. Sharing the most informative fields metadata and available digital data in ARIADNEplus portal enabled cleaning other issues in the information system.

Keywords

Archaeological Map of Bulgaria, digital data, ARIADNEplus, SEADDA, FAIR principles

NORWEGIAN UNIMUS, NORDIC COLLECTIONS, AND ARIADNEPLUS. ENCOURAGING USE AND RE-USE OF COLLECTIONS, EXCAVATION DOCUMENTATION, AND MUSEUM EXHIBITS

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This contribution will present digital assets and initiatives at the Museum of Cultural History (MCH), University of Oslo (UiO) and aims at sharing data.

The COVID-19 restrictions have elevated the importance of digital assets. At the beginning of this period, metadata for the archaeological collections were, to a large degree, already digitized and accessible online. This is the result of a national collaboration beginning in the 1990s and continue today in UniMus:Kultur. MCH had also published a map-based overview of all excavations in Eastern/Southern Norway, and begun to release excavation reports through UiO's science archive. Recently, focus has shifted towards 3D-documentation of exhibits and publication of existing 3D-models on 3DHOP—available through humgis.uiocloud.no

MCH now concentrates on digitizing artefacts at the Viking Ship Museum. The 3D-models from here will be included in the BItFROST project, which will address the active role of 3D-models in research and education. BItFROST will work on FAIRifcation of 3D-models and promote dialogue with researchers. The 3DHOP platform enables the creation of interactive user-interfaces for researchers and a public audience. Collaboration with DarkLab in Lund, Sweden will create common user-interfaces for Swedish and Norwegian collections. The project will also utilize AR and VR in the presentation of data.

In addition, the infrastructure project ADED (Archaeological Digital Excavation Documentation) provides open-access to excavations in Norway. The five Norwegian university museums and the Directorate of Cultural Heritage take part in the project. ADED's map-based webpages will integrate excavation documentation and the museums' artefact/photograph databases, making it possible to have an overview and detailed information of excavations and finds. As part of migrating the data to a common repository, mapping it to CIDOC-CRMarcheo facilitates further mapping to ADRIADNEplus and/or other datasets.

Keywords

UniMus, ADED, digital excavation documentation, digital accessibility, interactive data

INTEGRATING ARCHAEOLOGICAL DATA FROM DIGITAL REPOSITORIES AND WEB-BASED SPATIAL DATABASES. IDACORDIG AND SUQUIA IN PANDEMIC TIMES.

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The COVID-19 pandemic unleashed during 2020 implied a change in the way of doing archaeology on a global scale. In Argentina, in particular, activities had to move to the domestic sphere and, most times, the possibility of carrying out fieldwork, material analysis and collection management in the usual workplaces was lost. This practice showed the need for repositories, libraries and online databases that would allow access to archaeological information. Suquía, the institutional repository of IDACOR, has been compiling and disseminating archaeological information since 2016, although it had not yet developed its capacity to include databases that would allow meta-analysis of the information hosted. So, the needs raised by the lockdown led to implementing an action aimed at incorporating data from 1938 archaeological sites in the Province of Córdoba (Argentina) together with IDACORDIG (an implementation of the Arches software) which links this set to a spatial database, creating a gazetteer of archaeological sites for the region. This integration is the first of its kind in Argentina, and fosters an increase in primary information and grey literature visibility, together with publications preprints and prints that allow continuity in the study of archaeology on a regional scale. In this presentation we will characterize this process and its technical aspects to aware on the potential of this type of platform for its integration into digital infrastructures of global impact.

Keywords

Database, Argentina, digital data, FAIR, Open science

IMPACT OF THE COVID-19 PANDEMIC ON ARCHAEOLOGICAL DATA MANAGEMENT IN FRANCE, THE INRAP EXAMPLE

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As in many countries, the COVID-19 pandemic took the French public authorities by surprise, forcing them to close the country almost completely in less than 72 hours. The French National Institute for Preventive Archaeological Research, like other public institutions, was not prepared for full teleworking and total shut-down of its activity, its excavation activity having been entirely suspended for two months. After a period of astonishment and reorganisation, many initiatives were taken in terms of management, organisation and even accessibility of data produced by the Institute. The strict lockdown, that took place in France during the months of March, April and May 2020, has given Inrap's archaeologists time to develop or implement data management practices, experiments and procedures already initiated internally or induced by the Institute's participation in European programmes and networks such as ARIADNEplus or COST SEADDA. However, this situation has also brought to light blockages and malfunctions that existed previously but for which workarounds had been put in place (non-dematerialised administrative procedures; scientific documentation scattered ; difficulties of communication; non-accessibility of archaeological collections; etc.). The aim of this paper will be to show how Inrap archaeologists and scientific staff were able to take advantage of this special moment, how this situation was an opportunity for the management and opening up of Inrap's data, while underlining the difficulties of implementing collective projects at a time of entirely digital communication. We will also look at the lessons to be learnt from the lockdown but also from the period of reinforced teleworking that we continued to experience afterwards. What is the impact of this period of isolation on our practices, research subjects and projects as researcher or research manager despite more accessible data?

Keywords

data management, preventive archaeology, COVID-19