26TH EAC HERITAGE MANAGEMENT SYMPOSIUM

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ABSTRACTS

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NFDI4Objects – Providing Infrastructure for FAIR Research Data for the Material Remains of Human History
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The NFDI4Objects consortium unites over 70 institutions from the fields of antiquities and object sciences in Germany. Together, they are working to establish the necessary conditions for sustainable research data management, following the FAIR (Findable, Accessible, Interoperable, and Reusable) principles. The consortium represents interdisciplinary research into our material heritage – human-made objects and their multifaceted histories. It focuses on the unique biography of each object, shaped by its integration into various contexts, e.g. from excavations through scientific examination and in collections. These data form the basis of our endeavour. NFDI4Objects is part of Germany's National Research Data Infrastructure (NFDI) and receives joint funding from the federal and state governments.

Our goal is to provide technical infrastructure, applications, advice, and support for the entire data lifecycle, catering to both institutional and individual users. In doing so, we aim to enable tailored research data management solutions. Our community-driven bottom up approach relies on the active involvement of the specialist community, its initiatives, and its expertise. The work program is focused on the users' needs and spans seven task areas, covering all aspects of object biographies and the research data lifecycle.

As part of the digital transformation in archaeological sciences, the quality and volume of digital data collected and ultimately archived in research projects have evolved significantly. In addition to ensuring sustainable data integrity and addressing file format issues, there is an increasing focus on data quality, its interoperable use, and adherence to semantic web principles.

To ensure the sustainable availability of collected research and collection data – along with its ongoing enrichment and reuse – are central elements of the work of NFDI4Objects and its stakeholders. This contribution therefore aims to outline the structures of collaboration and participation within NFDI4Objects, connect them to the mission of the EAC, and provide insight into current projects. It primarily highlights the community-based development of RDM standards and tools for generating and securing FAIR research data from excavation to archives and beyond. It further aims to deepen the discussion with our international partners as their feedback and expertise are equally crucial for our mission.

Digital archaeological primary documentation data in Baden-Württemberg (Germany): The LAD-BW's path from standards to archives

Anna-Marie Dürr, Jonas Abele, Marco Schrickel, Steffen Berger, Julian Hollaender | Landesamt für Denkmalpflege im Regierungspräsidium Stuttgart

The State Office for Cultural Heritage Management (LAD-BW) in the Regional Council of Stuttgart (Baden-Württemberg, Germany) is responsible for archaeological heritage management throughout the federal state. Up to 300 excavation projects are supervised or carried out annually, with a large proportion of these projects being implemented by external excavation companies since 2018. The digital primary documentation data generated during these excavations is centrally reviewed, processed and transferred to a central data archive at the LAD-BW.

The central archiving of this digital data presents significant challenges given the sheer number of projects and the continuously growing volume of data. The presentation will focus on the main issues and solutions related to the sustainable preservation and utilization of this data. A particular emphasis will be placedon the standardization and structuring of digital primary documentation as well as its archival storage and quality assurance.

In the first part, current strategies for further developing data collection systems, data management plans, and documentation standards will be presented. These strategies address the following key areas in particular:
- Promoting FAIR principles, for example, through improved integration of primary documentation into the existing database target systems and the development of metadata standards.
- Advancing documentation guidelines, which serve as the key to creating archival, standardized, and interoperable data packages, thereby significantly enhancing data quality.
- Standardized contextualization of documentation results, to provide cross-site, comparable information.

A second focus will be on the archiving and processing of digital legacy data. The archive now contains over 5,500 excavation projects, many of which were created before the introduction of unified documentation standards. This so-called legacy data is often characterized by proprietary formats, incomplete metadata, data protection issues, and inconsistent structures. While more recent data meets the requirements for archival formats, processing legacy data requires significant resources and remains indispensable.

As part of the NFDI4Objects project, a project is being carried out at LAD-BW to develop systematic approaches to checking, harmonizing and integrating this legacy data into existing infrastructures. The lecture provides insights into the current state of this project and shows how its results could shape future work in the field of digital long-term archiving of archaeological legacy data.

Persistent Identifiers: Road to the FAIRness of Archaeological Samples at the Deutsches Bergbau-Museum Bochum

Yiu-Kang Hsu, Thomas Stöllner, Ingolf Löffler, Jan Sessing | Deutsches Bergbau-Museum Bochum
Rorie Edmunds | Datacite

Archaeological samples have complex life histories, involving discovery, documentation, analysis, and preservation. Persistent identifiers (PIDs) are crucial in this context, enabling permanent and unambiguous identification of research outputs and thus ensuring reliable data retrieval and supporting long-term referencing.

This presentation focuses on the International Generic Sample Number (IGSN ID) and its role in enhancing the FAIRness of archaeological and archaeometric data, illustrated through a use case at the Deutsches Bergbau-Museum Bochum (DBM). As part of Germany's National Research Data Infrastructure, DBM develops standards for managing analytical data and instrument-based analyses in archaeometry. DBM is also a use case in a planned project, "Strategic Integration of Persistent Identifiers for Research Samples", which aims to implement IGSN IDs across research institutions in Germany. This global standard for material sample identification is now integrated with DataCite DOI services through the IGSN–DataCite partnership.

DBM is adapting its workflows to incorporate IGSN IDs for archaeological samples, addressing key challenges such as collecting comprehensive, standardised metadata. Metadata-rich sample landing pages ensure that material samples are FAIR and connected to associated research outputs, including related data, literature, and organisational entities.

DBM also participates in the IGSN Archaeology Community of Practice, collaborating with international archaeologists to develop a metadata profile for archaeological samples. A significant outcome of this effort is a crosswalk recommendation aligning the developed metadata profile with the DataCite Metadata Schema. Simultaneously, DBM is evaluating research software to streamline IGSN ID integration, especially PID registration workflows.

By implementing IGSN IDs and relevant metadata standards, DBM aims to set a paradigm for sustainable archaeological data management.

FAIR or complicated? The Hungarian Case

Gabor Viragos | Independent Specialist
Attila Kreiter | Hungarian National Museum Public Collection Centre

There is long development at the central archaeological services in Hungary, managed by the Hungarian National Museum Public Collection Centre at the moment. The result is an online available Archaeology Database aimed equally at researchers, field archaeologists, heritage officials, museum curators, and the public. This database, developed as part of the European ARIADNE project, intends to encompass all registered archaeological sites in Hungary, along with their metadata and grey literature, including site documentation and scientific research reports.

The database content is continuously expanding, with new information and documentation being regularly added. The online catalogue has become an invaluable tool for archaeological research and heritage officials alike, providing access to all available site documentation, which supports and informs the decision-making process.

Importantly, it also seeks to integrate archaeology into the broader society by offering public access to site metadata (excluding GPS coordinates) and summaries for general audiences. Thus, the Hungarian Archaeology Database is not only a resource for researchers and museum professionals but also plays a role in education and public engagement.

However, this is not the official public archaeological database as that one is managed by the Ministry of Architecture and Traffic. While that database does not contain detailed information about each site and its research, official data acquisition is only available from them. Additionally, plenty of local/institutional databases exist and there are recent tendencies to use AI for deploying all kinds of archaeological data from the various repositories.

The aim of the presentation is to explain the Hungarian case in all these respects. Who can have access, who may not but still has, how data are made available at which database, and the impact of these varied systems.

Work Digital, Think Archive, Create Access: Exploring the Legacy of the Dig Digital Project
Jen Parker Wooding | Chartered Institute for Archaeologists, UK
Amanda Forster | Tacit Heritage, UK

Digital technologies have transformed the way archaeologists work, providing innovative research tools, improving site investigations and giving new life to knowledge about the past. As with all parts of an archaeological archive, digital data contributes to the long-term preservation of sites by providing key information which can be accessed by researchers and the public alike. How that information can be used in the future is an important consideration and, as innovative technologies become the norm, we must be sure that our archive processes adapt to incorporate new methods, tools, and data. This paper discusses the development and implementation of a professional Toolkit (https://www.archaeologists.net/digdigital) to embed FAIR principles into the management of archaeological project data.

The Dig Digital project (an Archaeological Archives Forum initiative) is the culmination of ten years of research and collaboration. Managed and delivered by DigVentures, in partnership with the Chartered Institute for Archaeologists and funded by Historic England, the aim of Dig Digital was to establish a methodology for digital archive compilation and its integration into archaeological working practices across the United Kingdom. The project provides a good example of how to create a robust, collaborative framework that promotes sector-wide sustainable

practices in archaeological digital data management and supports implementation. An early product was the development of guidance that linked working practices in archaeology and professional Standards and guidance, with other key frameworks that considered digital research data, namely the FAIR Guiding Principles. Cooperatively designed and planned from inception, Dig Digital provides guidance, learning resources, templates and much more, all packaged and delivered as a professional Toolkit for archaeologists.

Dig Digital promotes the importance of the whole project team in embedding data friendly practices within a project or organisation. The guidance and resources focus on project management processes that are proportionate to the size and complexity of the project, whilst promoting the importance of Data Management Plans and Selection Strategies to fully consider and document how archives can be accessed, and how best to convey their potential. Drawing on examples, this presentation will reflect on the legacy of Dig Digital and the overarching message that it is the responsibility of all archaeologists, and not just those responsible for archive deposition, to help create good archives. Archives that are Findable, Accessible, Interoperable and Reusable, by all in perpetuity.

SESSION 2: UNLOCKING THE POTENTIAL OF PHYSICAL ARCHAEOLOGICAL ARCHIVES AND THE (CHANGING?) ROLE OF MODERN ARCHAEOLOGICAL REPOSITORIES
Chair: Kaat De Langhe | Flanders Heritage Agency

The maritime record in Scotland from recording to presentation
Peter McKeague | Historic Environment Scotland

Along with partners in England Wales, Historic Environment Scotland (HES) is a member of the Marine Environment Data Information Network (MEDIN). MEDIN promotes the preservation, sharing of, and improved access to digital data from across the marine environment. HES is also a project partner in Unpath'd Waters, a ground-breaking research project to increase engagement with maritime heritage. collections. Together these partnerships highlight the wealth and largely unrealised potential of data from our marine heritage. Compared to terrestrial archaeology, maritime archaeology presents particular challenges in terms of heritage management, accessibility and public engagement.

Alongside HES Archives and terrestrial records, the maritime record forms part of the National Record of the Historic Environment (NRHE) in Scotland. Originally created to inform offshore developers about potential wreck locations, content, mostly compiled the UK Hydrographic Office wreck data and published lists of wrecks is either quite technical or extremely brief. Exceptions are those wrecks surveyed or excavated where the archive may be deposited with HES Archives and presented online as either as catalogues of analogue resources or as digital content. Artefacts from wrecks are deposited with a museum.

Several options are considered to improve the content and presentation of the maritime record. These include low-tech solutions to virtually reconnect artefactual catalogues from museums to the relevant wreck record or linking to specialist websites that have thoroughly research of a vessel's history.

More can be made of the maritime archive. Inclusion of videos provides virtual experiences allowing non-divers to visualise and explore wrecks through the marine archaeologist's camera lens. Virtual dive trails would provide similar 'access' for non-divers to explore wreck sites.

More can also be made of data collected from remote sensing and diver inspection surveys monitoring protected wreck sites. An audit of surveys undertaken over the remains of the German Imperial Navy's High Seas Fleet scuttled in Scapa Flow, Orkney in 1919 highlights the selective nature of archive deposition favouring reports and images over data. The audit contrasts the approach of the formal archive with other independent initiatives producing 3D models – Digital Twins - of some of the wreck sites and how the latter could greatly improve public engagement with our online content.

Following the ethos of MEDIN to 'measure once, use many times' more can be made of project archives and related online resources to enhance the public experience of the maritime record.

Collecting Ireland's Archaeological Heritage: the continued lifecycle of records
Rachel Barrett | National Monuments Service, Dept of Housing, Local Government & Heritage, Ireland

Public access to Ireland's archaeological archive collections is an important function of NMS Archive. The general public and archaeological researchers are considered key stakeholders, with their wants, interests, and expectations regularly assessed to ensure the service we provide reflect such. This talk will introduce the NMS archive collections, focussing on the type and volume of material held and their accessibility. The main focus will be on the process of depositing archaeological archives.

The lifecycle of archaeological records does not end with their transfer to a dedicated repository. While the chain of custody may change from licensed archaeologists to the care of professional archivists, the research potential, in terms of how the information can be disseminated to the wider public, is only beginning to be unleashed. As such, it is necessary to engage with stakeholders at the earliest stage, to ensure that the archiving of records created is considered to be part of the excavation process as a whole.

With archaeological finds automatically the custody of the National Museum of Ireland through legislation, it was recognised that there were no standardised guidelines for the retention of records produced from licensed

excavations. In response to this, NMS Archive, through close communication with the archaeological sector, as well as with a Dublin-based archive that was accepting archaeological archives from that region, developed procedures and guidelines for these records.

A key factor of the deposit process, beneficial to both parties, is that NMS Archive provides archival quality boxes free of charge. This removes any additional expense for depositors. In turn, however, depositors are expected to complete a bespoke catalogue for all records being transferred. From NMS Archive point of view, this addresses any potential staffing implications that may arise if the material were to be catalogued after transfer.

The accuracy of a catalogue determines it accessibility to researchers. Engagement with the archaeological sector was a key part when selecting the range of content options. For accuracy and consistency it was decided that drop-down lists of contents could be completed by depositors but edited only by NMS Archive. Additions and alterations can be made to these lists at any time through communication with NMS Archive and all suggestions are welcomed. Preservation of the material can be identified by type with ease and researchers can select items relevant to their research efficiently. It is envisaged that these collections will be digitised to widen accessibility even more.

Managing archaeological archives in Iceland, challenges and steps towards solutions
Ármann Guðmundsson, Hrönn Konráðsdóttir | The National Museum of Iceland

By law, all data and artifacts collected during archaeological excavations in Iceland is property of the State and must be delivered to the National Museum of Iceland for preservation. The National Museum of Iceland then provides access to this data to the public and scholars. The packing and labelling conditions of the artefacts and the associated data preparation have serious impacts on future accessibility. The first official standards for archaeological databases were finally created in Iceland around 10 years ago.

In some ways, Icelandic archaeology has a remarkably short yet sharp history. The University of Iceland did not offer degrees in archaeology until 2002, significantly increasing the number of archaeologists in Iceland. This started a trend towards a commercial archaeology sector, increasing the number of archaeological artifacts and varying types and qualities of data. New cultural heritage laws were implemented in 2001, which also called for the development of the first standards for archaeological databases. Since then, the standards have been updated twice, first in 2014 and then again in 2023. The rules cover all data generated during archaeological excavations, everything from artifacts to databases and drawings to photographs. In 2023, the rules shifted towards European standards (Arches) thereby shortening and simplifying them considerably.

Prior to this, each archaeologist catalogued and labelled the data and artifacts according to their best ability, resulting in almost as many different techniques as there were directors of archaeological excavations. The introduction of government-led regulations in 2013 and 2014 started a significant shift towards standardization. This transition is particularly interesting to explore in terms of its impact on the accessibility of archaeological data and artifacts.

In this lecture, we will review, and present examples of the impacts standardization made on the accessibility of archaeological data and artifacts curated at the National Museum of Iceland. This will show how increased standardization has improved databases themselves and their functionality for both visitors and museum staff, and how we can build upon that. There are still problems that need to be addressed and changes to be made, but every step pushes us further towards improved and simplified access to data and associated artifacts.

Repository research
Nathalie Vossen | Information and Heritage Inspectorate, Netherlands

The Dutch Heritage Act stipulates that every province in the Netherlands maintains a depot in which archaeological finds, found during excavations within that province, and the associated excavation documentation and reports, can be stored in a manner that is justified from the point of view of preservation and accessibility. Where there are clear guidelines for preservation, they are less clear for accessibility.

All information collected during archaeological investigations and selected there for depot management, will be stored for the above purpose. Information consists of findings, samples and project documentation in words and images. All findings, samples and project documentation are properly arranged at a location where conditions are such that findings, samples and project documentation may be stored as stable as possible. It must be possible to make interconnections between findings, samples and associated project documentation.
The aim is not only to make this information available for future research, but also to the perception of cultural heritage.
The Information and Heritage Inspectorate (Ministry of Education, Culture and Science) has been monitoring the archaeological depots since 2006. This presentation provides insight into our findings of the past 10 years with regard to the accessibility of the archaeological depots.

Bringing Archaeology Home: Reconnecting Heritage with Its Community
Lien Lombaert, Lieselotte Desnerck | Heritage Depot Ename, Belgium

In Flanders, Belgium, cultural heritage is governed by laws that distinctly separate movable and immovable heritage. Since 2015, specialized "immovable heritage depots" have been established to care for objects removed from their original locations. These depots must meet strict quality standards to receive funding, and 15 of them have earned an official accreditation label. Operated by cities, intermunicipal services, provinces, or non-profit organizations, most depots primarily function as storage facilities, although some also serve as museums or exhibition spaces.

At Ename Heritage Site, we see the focus on immovable heritage not as a limitation, but as an opportunity. The depot is located in a modern concrete building on a protected archaeological site—a former Benedictine abbey along the Scheldt River. It houses archaeological collections, parts of protected monuments, and, since the COVID-19 pandemic, even veteran trees.

This approach presents a significant challenge: how do you preserve the essence of immovable heritage when it is removed from its original setting? How do you share its story effectively with the public?

This year, we opened a new exhibition on heritage conservation. It explores the concept of heritage and the relationship between the landscape and the heritage within it. A key part of the exhibition examines damage patterns on various objects, showcasing some of the most degraded and damaged items from our own and other museum collections.

Visitors are invited to look into our depot spaces for a behind-the-scenes view of the conservation process, though access is restricted. However, this experience is only available to those who visit Ename. The challenge remains: how do we share this rich history with people who may never visit the site?

To bridge this gap, we offer summer internships for archaeology students, during which they curate display cases featuring specific archaeological collections. These cases are then placed in public spaces near excavation sites, accompanied by local events and activities. This initiative brings heritage directly to nearby communities, fostering a sense of connection and appreciation among residents for the history beneath their own feet.

Through innovative storytelling, public outreach, and education, Ename Heritage Site not only preserves physical artifacts but also ensures their stories are shared widely. This holistic approach demonstrates how heritage can transcend traditional boundaries and engage a broader audience.

Archaeological archives in Wallonia: Conservation, resilience and digital transformation
Sophie Denoël, Claire Goffioul | Walloon Heritage Agency

The management of archaeological archives in Wallonia is part of a demanding context, marked by climate challenges, legislative changes and digital advances. This presentation explores innovative initiatives to preserve, enhance and transmit this unique heritage, based on strengthened regional collaborations and an ambitious digital transformation. The themes addressed will include conservation, resilience in the face of crises, the enhancement of archives and dissemination to various audiences.

1. Strengthened accreditation standards adapted to climate realities:
The new Walloon Heritage Code includes revised requirements for the approval of archaeological deposits. We will explain how these standards promote the resilience of infrastructures through specific measures (strategic location, climate management, security) and how they contribute to the long-term conservation of collections.

2. Flooded archaeological deposits and the construction of a modern repository:
The floods of 2021 revealed the vulnerability of some Walloon archaeological deposits. This section will analyze:
• The impacts of flooding on collections.
• Emergency actions to limit losses and restore damaged objects.
• The project to build a new repository that meets the standards and guarantees the security, sustainability and accessibility of the archives.

3. Increased collaboration with regional structures:
Effective management of archaeological archives relies on strengthened partnerships with regional and local stakeholders, including:
• Museums and archive centres, for the pooling of resources and the enhancement of collections.
• Universities, to develop research projects and train new professionals.
• Associations (non-profit organisations), which play an essential role in raising awareness, volunteering and providing logistical support.
This section will highlight possible synergies to optimize conservation, strengthen resilience and foster the transmission of heritage within a collaborative network.

4. Digital archives management and digital transformation:
In the digital age, archaeological data is not limited to physical objects. This section explores:
• The digitization of archives and their integration into interoperable databases.

• The implementation of Data Management Plans (DMPs) to guarantee the durability and security of information.
• The opportunities offered by emerging technologies (AI, augmented reality, 3D modelling) to enrich the conservation and enhancement of heritage.

SESSION 3: BEYOND ARCHAEOLOGY – THE VALUE OF ARCHAEOLOGICAL ARCHIVES
Chair: Adrian Olivier | Historic Environment forum

Pick one - using "old" archives to integrate community around local heritage
Agnieszka Oniszczuk | National Institute of Cultural Heritage, Poland

Archaeological heritage managers, especially on national or provincial levels, are faced with a question on how to promote archaeological heritage and its value. Seen in a general perspective, it becomes elusive and too vague to be communicated easily.

The paper will present a one-site approach to archaeological heritage and its promotion, integrating local community around a chosen site. Based on the experiences of an EU-funded project called TRIQUETRA. Toolbox for assessing and mitigating Climate Change risks and natural hazards threatening cultural heritage', the author will propose a solution that can be adjusted to varying sites, locations and budgets. The latter is especially important in times of development of new visual technologies, which, albeit very attractive, may be far too expensive for some heritage actors.

Legacy and Springboard: Archaeological Archives and Scientific Innovation
Barney Sloane | Historic England

The potential of our archaeological archives as sources of evidence for new narratives of the past, for lifelong education and as resources for exhibitions are well appreciated (even if this potential is not consistently harnessed). However, archives contain priceless and irreplaceable raw materials for scientific innovation too. This presentation will introduce examples relating to the understanding of human evolution, disease and pathogens, medicine and health, and biodiversity, and will argue that this public benefit needs to be harnessed not only as a means to advance knowledge but also to underscore the value of archaeology as a public good.

Looking Back to Move Forward – The Benefits of Researching Archaeological Archives for Policy Making Today
Paulina Florjanowicz | National Institute for Museums, Poland

Archaeology, a discipline devoted to reconstructing the past through meticulous study of fragmented evidence, paradoxically often neglects its own history. The evolution of archaeology as a field remains largely overlooked, dismissed as unimportant or irrelevant. This attitude extends beyond academia into public policy, where previous policies and their original objectives are seldom examined. Instead, policies tend to evolve gradually, with minor amendments and adjustments, while their foundational goals fade into obscurity.

For archaeology, a discipline shaped by social and political contexts, this oversight is particularly problematic. Many of the challenges archaeologists face today were recognized over a century ago, yet they persist, largely because past experiences are ignored. In Poland, archaeological policies have been heavily influenced by shifting political landscapes, often in response to dramatic historical events. These influences have shaped not only the discipline itself but also public perceptions of archaeology, affecting its status and societal value. Understanding how these policies emerged, adapted, and sometimes lost their original intent is crucial for making informed decisions about the future of archaeology.

By revisiting the history of archaeological policy, we can gain valuable insights into contemporary challenges and ensure that policy-making is based on knowledge rather than inertia. A critical assessment of archival records and past decisions can help refine current approaches, leading to a more sustainable and well-integrated role for archaeology in society. Recognizing where we come from is essential to shaping where we go next.

The availability and use of accessible digital archives and data from excavations on transport infrastructure projects in Ireland
James Eogan | Transport Infrastructure Ireland

The Archaeology and Heritage Section of Transport Infrastructure Ireland (TII) has overseen the completion of more than 2,000 pre-construction archaeological excavations and surveys on national road, public transport and greenway projects since 2001. As a non-commercial state body TII operates within the Irish Public Sector Open Data Strategy and is committed to making the data from these excavations available to the public and researchers in a straightforward and sustainable way.

This presentation will briefly outline TII's approach to archaeology and heritage, with a particular focus on actions undertaken to make archives and datasets publicly available in accordance with FAIR principles. The archaeological

excavations funded by TII are carried out under contract by commercial archaeological consultancies. TII's view has always been that reports and other outputs from projects that we fund should be made publicly accessible, to that end our standard archaeological services contracts contain a transfer of copyright clause.

TII has partnered with the Digital Repository of Ireland (DRI) to create the TII Digital Heritage Collections, a repository of digital assets from TII-funded projects, there are a number of sub-collections including excavation reports, geophysical survey reports, publications (books and research papers), audiobooks and short videos, 3D laser scans, and datasets. The collection provides access to archives from TII-funded archaeological and heritage services related to the planning, development and construction of national road and light rail projects since 2001. The repository offers researchers, regardless of their geographical location, a wealth of archival research material.

The TII Digital Heritage Collections contain more than 2,600 excavation report assets from more than 150 national road and public transport projects. The excavation reports assets, which currently represent more than 85% of the assets in the collection, are made available in pdf format, each report is associated with rich metadata.

The value of TII's digital archive can be seen in a number of research projects. DRI's inaugural Early Career Research Award winner, Jennifer McCarthy, used archaeological excavation reports available on the TII Digital Heritage Collections for her research reinterpreting a Bronze Age settlement site. The TII Digital Heritage Collection has been a significant resource for a number of 'big data' INSTAR and INSTAR+ research projects funded by the Irish Government through the Irish Research Council.

In recent years, recognising the importance to researchers of data, TII has added requirements to contracts for consultants to prepare certain datasets. These datasets must be prepared in accordance with specified data structures and are made available in open source .csv format. Currently datasets are required for excavations, radiocarbon dating, dendrochronology dating, luminescence dating, other datasets have been prepared for certain categories of data such as fulacht fia (Neolithic/Bronze Age open air cooking sites commonly encountered on road projects). While currently the number of datasets available on TII Digital Heritage Collections is small, each dataset contains data relating to multiple excavations. As on-going projects are completed the number of datasets will increase significantly. There is also the potential that new datasets will developed, for instance environmental archaeology and zooarchaeology datasets, related to the implementation of TII guidelines.

Looking to the future, we anticipate that engagement with users of the TII digital archive and the DRI will lead to further improvements and the expansion of the archive resources that will be available to researchers. In tandem with this, the contract specifications related to the compilation of standardised digital archives from future public transport and road projects will be kept under review and will be updated as required.

5DCulture: Realizing the potential for reuse of our archaeological archives

Anthony Corns, Robert Shaw, Rebecca O'Reilly, Siva Namberi, Hannah Boyd, Lesley Davidson | The Discovery Programme

5Dculture was a 24-month collaborative project co-funded by the European Union, which involved twelve partners across cultural heritage sectors such as archaeology, museums, and fashion. Its goal was to enhance European 3D digital cultural heritage assets in the data space, promoting reuse in education, tourism, and broader cultural and creative sectors for sustainable outcomes. The project focused on delivering high-quality 3D content by engaging existing datasets from partner collections, emphasizing fashion, archaeology, and architecture and reuse scenarios, which enabled the delivery from high-quality content to accessible derivatives, were developed.

The Discovery Programme, with a history of involvement in 3D digital documentation, particularly through projects like 3D-ICONS and supporting national organisations in their documentation requirements (NMS, OPW, NMI), recognised the opportunities and challenges in reusing 3D archaeological content. This includes enhancing visitor experiences at archaeological sites and leveraging 3D surrogates across various sectors like tourism, education, gaming, arts, conservation, and heritage management.

This paper discusses the research conducted in this context, introducing an improved processing pipeline to enhance the quality of 3D models of cultural heritage assets ensuring high quality of products which would facilitate their increased reuse. It details approaches to the creation of rich metadata, and establishing strategies for persistence and archiving to ensure access for future researchers.

The paper addresses project deliverables and outcomes produced for the different use case pilots in tourism, heritage conservation, and the creative arts sectors focusing on the delivery of practical outputs which can be actively utilized by a wide user community of both professional and public users. Ultimately the project aimed to highlight the value and upcycling of archaeological and cultural heritage content and archives beyond its initial uses within archaeological research, and highlight and identify the value in this untapped resource.

Breathing Life into Archaeological Archives: Crafting Compelling Narratives with 3D Digital Storytelling

Jiri Unger | Institute of the Archaeology of the Czech Academy of Sciences in Prague, v.v.i.
Dalibor Dzurilla | Visuin
Martin Kostal | Department of Archaeology and Museology of the Masaryk University in Brno
Jiri Kosta | National Museum in Prague

The potential of archaeological archives often remains untapped, particularly in public education and engagement. This presentation explores how digital technologies can transform static archival materials into dynamic tools, enhancing accessibility and understanding for diverse audiences. Drawing on scalable case studies - digital reconstruction animations for the permanent exhibition of the National Museum in Prague, this paper highlights methods for utilizing archival sources in innovative ways. By integrating digital techniques, the presentation showcases how archaeological archives can become visually engaging narratives.

The talk will emphasize the educational benefits of digital reconstructions, demonstrating how reimagined archives data can bridge gaps between academic experts and the public. Special attention will be given to challenges such as ensuring visual credibility while leveraging archives for storytelling. The result is a structured yet flexible framework, combining scientific rigor with artistic interpretation.

This contribution will also serve as a clear manual and practical guide for museum and heritage professionals, offering operational solutions for reusing archival materials in the creation of digital animations. By providing actionable insights, the presentation aims to empower museums and heritage institutions to unlock the potential of their archives, enabling them to engage, educate, and inspire their audiences through digital innovation.