



# Annual Report 2023–2024

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FEATURE

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# Director's Foreword

Annual Report introductions are traditionally positive, but it is impossible to avoid superlatives when trying to sum up 2023–24 as a truly transformational year for the ADS. The number of archives being deposited as the result of development-led archaeology is at its highest level ever, bringing in over £0.5m per annum. Given the potential to grow our commercial work even further, we made a successful application to a University of York scheme which has allowed us to hire two additional staff members, taking us to 20 in total. Although our existing systems were creaking under the weight of new archives, Infrastructure investment by AHRC under the IDAH

programme has allowed us to make improvements for the benefit of all users, including new standard archive templates, and a streamlined Ingest system that will be released in 2024–25.

We have also witnessed a stepwise growth in research income, particularly from Europe, and facilitated by our founding membership of the ARIADNE Research Infrastructure. We started work on the ATRIUM project, led by DARIAH, and on ECHOES, led by CNRS. Both projects place ADS at the heart of European digital research infrastructure developments, via the European Open Science Cloud (EOSC) and the ECCCH (European Collaborative Cloud for Cultural Heritage). This

has already helped us win two additional European projects: AUTOMATA and ARTEMIS, which will both start in 2024–25.

Finally, in our 2022–23 Annual Report we mentioned that we hoped to be able to play a role in RICHeS, the AHRC's Research Infrastructure for Conservation and Heritage Science. In Spring 2024 we learnt that a consortium led by ADS had been awarded a £15m grant to establish the Heritage Science Data Service (HSDS). Work is already starting to build the HSDS, and we are recruiting for fourteen new positions. We look forward to an exciting year ahead, tackling the major challenges that come with change, but confident that we will have the best possible team to build on our success.

Professor Julian Richards,  
Director,  
Archaeology Data Service

Column sampling © Duncan Garrow



# Preservation Services

## Preservation Report

This year a significant achievement has been the completion of a tool that allows ADS archivists to better interact with the Object Management System (OMS). For the uninitiated, ADS uses the definition of 'Object' as defined by PREMIS concept of an intellectual object, "... a set of content that constitutes a discrete, coherent intellectual unit, such as a book or a database. These may be compound objects containing other intellectual entities and may have multiple digital representations". In ADS terms, this may be a simple object such as a PDF file for a single report, or a Shapefile that comprises a collection of files.

The OMS database holds core descriptive and technical metadata for each Object, records relationships between compound or complex objects (such as 3D model), and relationships between Objects and additional technical metadata stored in auxiliary files. The benefit of this tool to the ADS is that the team can better update and curate information, and ensure standards are maintained across the large numbers of files preserved. The benefit to our users is that, thanks to the recent improvements to our archive pages, this information is available and citable: for example [Object 2702831](#). Future work will use the OMS to look at how we can make Objects findable for users at the granular level, including our new forthcoming search interface.

## Certification

It's been an exciting year for accreditation! In [November 2023](#) the ADS was awarded Archive Service Accreditation via their assessor body in England, The National Archives. The ADS is the first ever digital-only archive service to receive this accreditation. Then in [April 2024](#) the ADS was (re)certified as a Trustworthy Data Repository by the CoreTrustSeal Standards and Certification Board until 12 February 2027. A copy of our application is publicly available at:

*Archaeology Data Service, 2024, "2027-02-12 – Archaeology Data Service – CoreTrustSeal Requirements 2023-2025", <https://doi.org/10.34894/GZFRVY>*

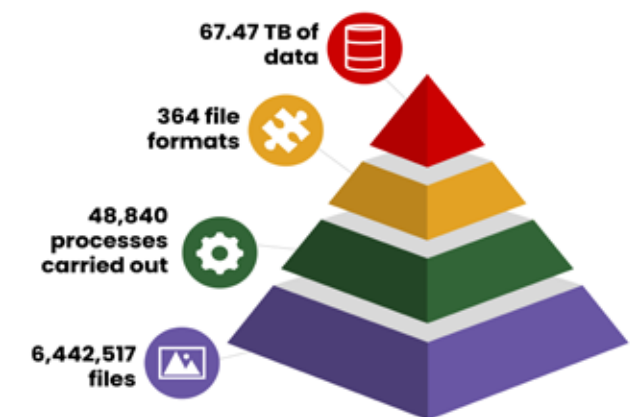
This is our second successful application, with our original application being in Spring 2020. The peer review application process ensures that we are working towards the highest standard for the digital preservation of data. The process includes review of Policies and Procedures, with all key documents [available on our website](#). As ever the process has proved a valuable exercise reflecting on our work, and generated useful internal discussion on workflows and documentation. Thanks are due to all the team at the ADS, especially those who maintain our data standards and documentation.

## CATs Week and Continuing Development

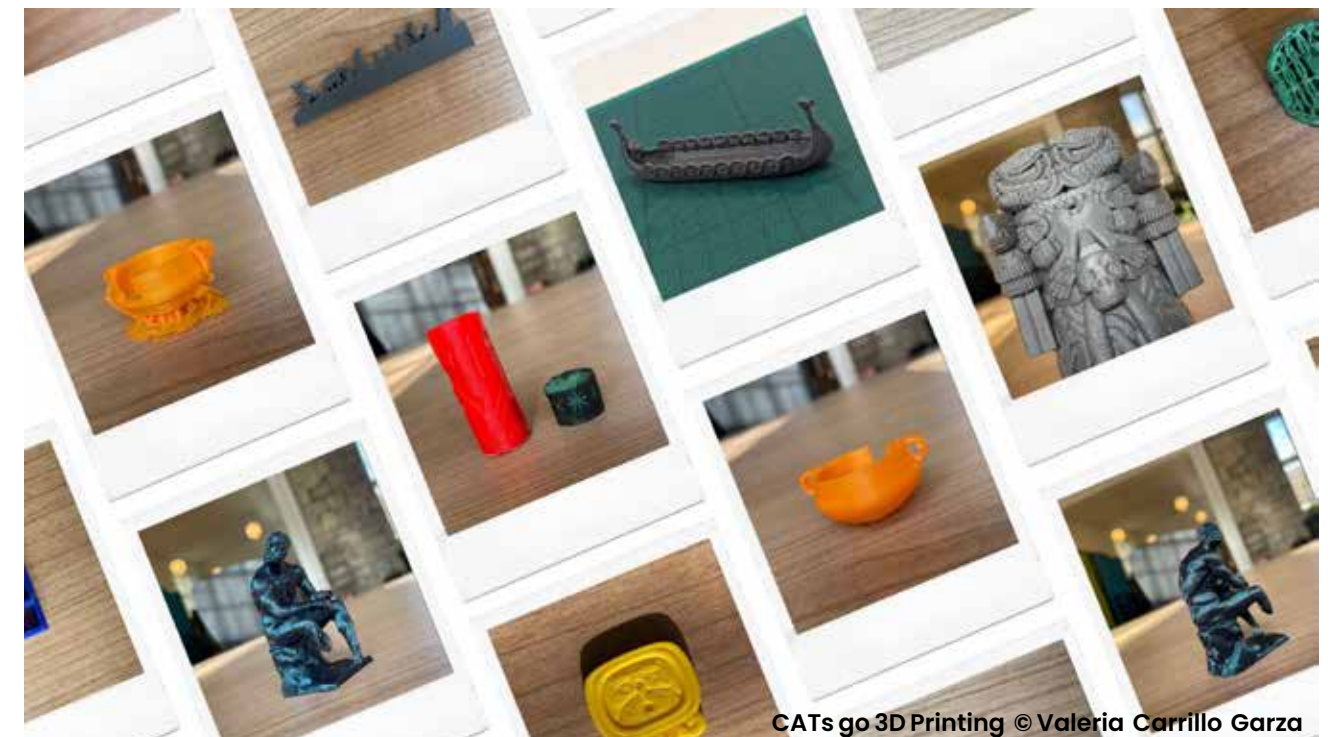
To welcome in the start of a new calendar year, the archivists (CATs) spent the first week in January talking about all things archive and curatorial. Now a yearly tradition, the archivists 'ease' into the New Year by brainstorming together, whether by reviewing the archiving process and tweaking elements that are no longer practical, or by dreaming up new ways we could promote the reuse or exploration of our collections.

This year's CATs Week focussed on a different theme each day: Appraisal – looking at our procedures for dealing with personal or sensitive data going forward; the 'Big Table' – working towards a master reference table for how we deal with preserving each of the different file formats that come our way; [3D Printing](#) – making our 3D data tangible and thinking creatively about how presenting our data differently might apply to reuse potential for different audiences, and finally Collections day – looking at how we present our collections, and thinking up ways to overcome existing limitations. All of the ideas discussed will prove useful to setting objectives for the years to come. For more information about the event, check out our blog post on [CATs Week 2024](#).

## Archive Statistics



The ADS team with our Archive Service Accreditation in Kings Manor © Jenny O'Brien



CATs go 3D Printing © Valeria Carrillo Garza

# Collections Development

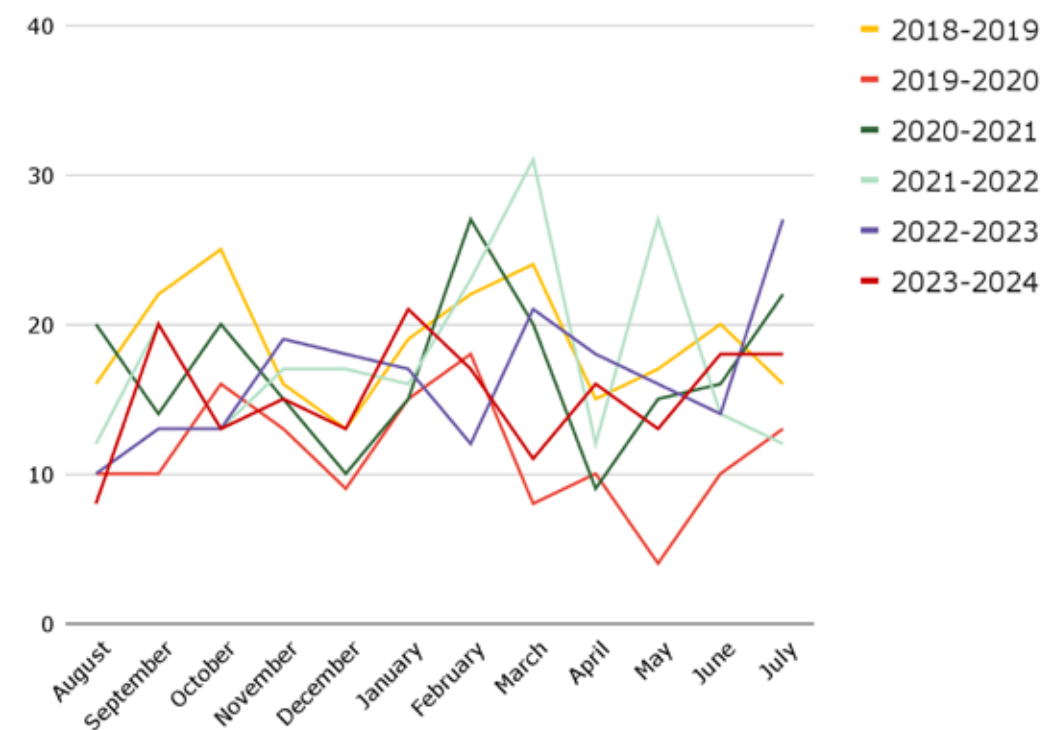
## Collection Report

This year we received an impressive 1129 new archives. 979 of these deposits were facilitated by our ADS-easy system, which continues to gain popularity. In addition to this remarkable achievement, we successfully released 669 collections, reflecting a 21% growth compared to last year. This year we received 183 enquiries for quotations for archives that cannot be processed through ADS-easy and responded to over 550 emails via the [collections@archaeologydataservice.ac.uk](mailto:collections@archaeologydataservice.ac.uk) email account. To further improve our services, we are diligently working on a new and improved ADS ingest system, poised to replace ADS-easy in the coming year, promising even more efficient and user-friendly deposition and costing solutions.

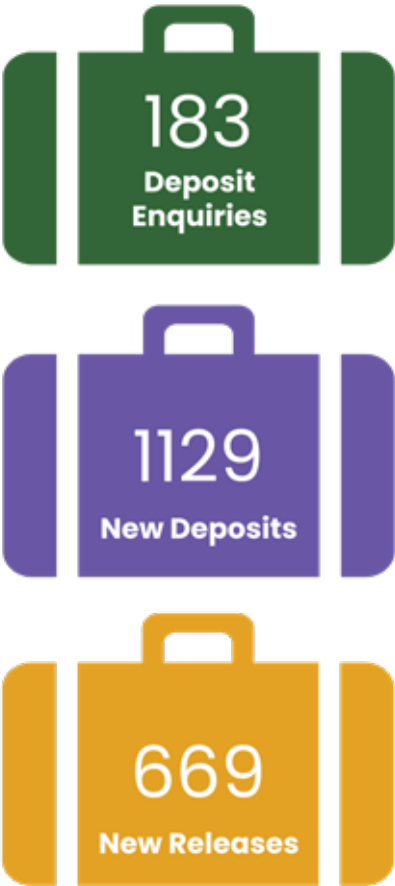
## PACE Funding

Despite impressive deposition figures, the ADS still receives only a small percentage of digital archives created by England's commercial archaeology sector. As the sole accredited digital heritage repository in England, the ADS aims to increase these figures to safeguard the future of this data. To achieve this aim, the [ADS has secured funding](#) through the University of York's PACE (Partnership for Academic and Commercial Engagement) initiative, which supports projects designed to drive long-term income generation and positive commercial relationships. As part of this project we will undertake market research and cost model analysis with the aim of improving our existing services. This will begin this year with the release of an online survey in August 2024.

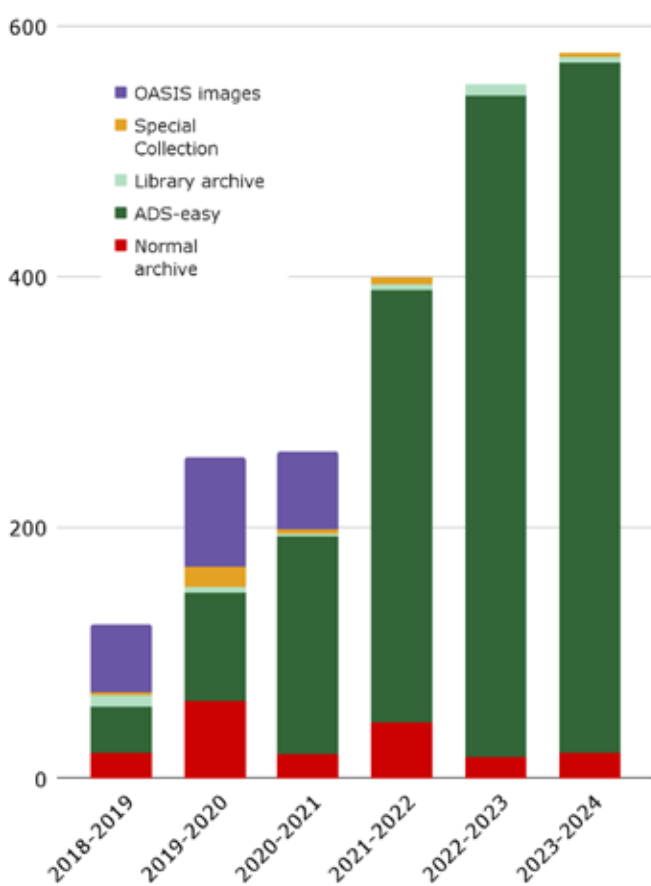
## Enquiries by Year



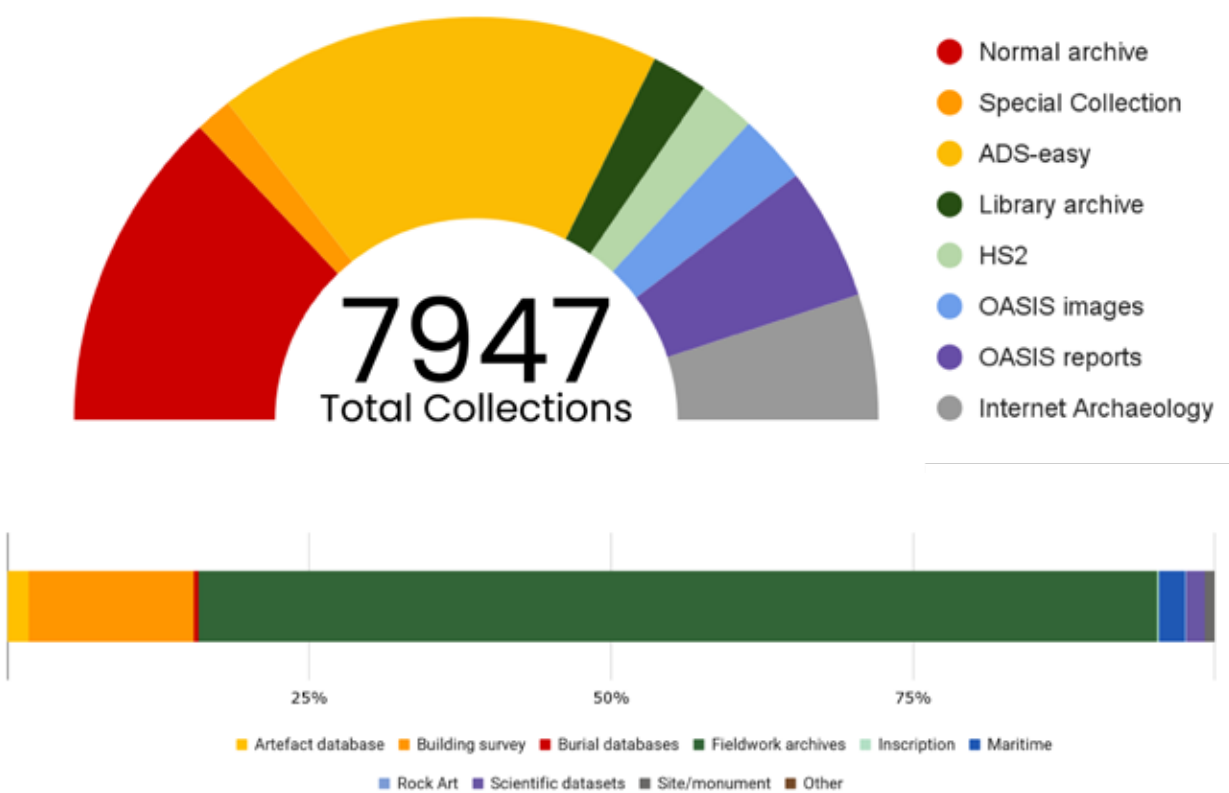
## Collection Statistics



## Deposits by Year



## Total Collections by Type





# Collection Highlights

## CITiZAN: the Coastal and Intertidal Zone Archaeological Network

<https://doi.org/10.5284/1116909>

[CITiZAN](#), the Coastal and Intertidal Zone Archaeological Network, is a community archaeology and citizen science project that was set up to address the daily risks to the UK coastline. The dataset contains the full CITiZAN database as well as images of coastal heritage sites from across the UK; from Bristol to the Tees Valley. These datasets cover all heritage types and periods from submerged prehistoric forests to Second World War pillboxes. For more details read the [CITiZAN news post](#) on the ADS website.



A volunteer recording using the CITiZAN App  
© Museum of London Archaeology

## Gatehouse Community Archaeology Project at Pontefract Castle, Pontefract, West Yorkshire, 2019–2020

<https://doi.org/10.5284/1113009>

Between 2019 and 2020, [DigVentures](#) undertook a community-focused archaeological investigation at Pontefract Castle, West Yorkshire. The excavation recorded seven phases of activity dating from the 12th to 19th centuries. The collection contains reports, photographs, GIS files, databases and section drawings, 3D models, as well as Community Engagement materials. This project has been the subject of multiple articles in Internet Archaeology. For more details read the [news post on the ADS website](#).



Volunteers excavating the Gatehouse site © DigVentures

## Charles French Geoarchaeological and Micromorphological Reports and Bibliography

<https://doi.org/10.5284/1113242>

This collection comprises geoarchaeological, micromorphological, and molluscan reports by Professor Charles French of the [University of Cambridge](#). Spanning 45 years of excavation and research, more than half of the sites listed are located in Cambridgeshire with the remainder in other parts of Britain, particularly southern and eastern England, Yorkshire, and Orkney. The archive also includes data from international projects across the Americas, Europe, Africa, and Asia.



Olduvai Gorge © Dr C A French

## Digital Datasets from a Flood Alleviation Scheme at Swine Castle Hill, Bransholme, Hull, 2011–2023

<https://doi.org/10.5284/1117730>

This collection comprises 3D models, fieldwork reports, and associated documents from the Holderness Drain Flood Alleviation Scheme at Bransholme, Hull. Funded by the Environment Agency, and undertaken by a series of archaeology companies, the project aimed to enhance public understanding of a 13th century motte castle that stands within the site. The collection includes a 3D reconstruction of the castle, an interpretation board and children's artwork from a local school competition.



Reconstruction drawing of Castle Hill © Benedict Dyson

## Surrey County Archaeological Unit Spoilheap Monograph Series and Occasional Paper Series

<https://doi.org/10.5284/1121025>

<https://doi.org/10.5284/1121029>

This year two new digital library collections have been released, showcasing the work of the [Surrey County Archaeological Unit](#) over the past 16 years. These two library collections feature a total of 21 publications from [Spoilheap Publications](#), including ten open-access monographs and eleven occasional papers. These collections detail archaeological sites and remains found across the county of Surrey.



Spoilheap Publications  
© Surrey County Archaeological Unit

## Digital Archive from an Open Area Excavation at The Pippin, Calne 2021. Worcestershire Archaeology

<https://doi.org/10.5284/1116196>

This collection details the archaeological investigations in late 2021 at land between the High Street and The Pippin, Calne by [Worcestershire Archaeology](#). The site revealed features likely to be late Saxon or early medieval in origin, succeeded by medieval burgage plots, a well-preserved lime kiln and quarry pits. Several new stone walls divided the plots from north to south in the post-medieval period. This collection comprises images, spreadsheets, GIS data and a matrix from an excavation and a watching brief at the site.



Overall site photo © Worcestershire Archaeology



# Featured Collection

## High Speed 2 (HS2)

The construction of the High Speed Two (HS2) rail link brought an unprecedented opportunity to explore our past through the country's largest ever linear infrastructure project. The scale of discoveries unearthed, the geographical span of the project and the range of our history unearthed, makes HS2's historic environment programme a unique chance to collate data from across Britain's past. This parent collection provides an overview of the extensive discoveries made along the route of HS2, from the earliest prehistoric times, to the Roman and medieval periods, through to changes wrought by the industrial revolution, two World Wars and the 20th century. For more information on the archaeological discoveries made along the HS2 route, including video summaries of key sites, [visit the HS2 website](#).

Available via a [Open Government Licence](#), the collection currently comprises datasets from the investigation of Phase One, a section of HS2 line between Euston, London to north of Birmingham, where it re-joins the existing West Coast Mainline.

A total of 86 collections are part of the HS2 Phase One: London to West Midlands Historic Digital Archive. A full list can be found on the [Collection List page](#).

The datasets comprise records from the investigation of archaeological and heritage sites along the HS2 corridor, including trial trenching, excavation, geophysical survey and historic building recording.

We present highlights from the collection here, however, there is a great deal of archaeological information to explore in the remaining HS2 archive, with further updates to follow.

*High Speed Two Ltd. (2023) HS2 Phase One: London to West Midlands Historic Environment Digital Archive [data-set]. York: Archaeology Data Service [distributor]*  
<https://doi.org/10.5284/1110091>

## Highlights

**Data from Stories of St James's Burial Ground, Euston, Camden, Greater London, 2021–2023 (HS2 Phase One). High Speed Two Ltd., MOLA Northampton, 2023.**  
<https://doi.org/10.5284/1118189>

The collection comprises two spreadsheets created from volunteer transcription of burial records from St James's Burial Ground Euston, Camden, Greater London. Between 2018–2019, archaeologists from MOLA Headland Infrastructure excavated 40,000 burials at St James' Burial Ground, the largest archaeological excavation of its kind ever undertaken in the UK. Following this investigation, further research was undertaken through a citizen science project that focused on the digital transcription of the relevant burial records, providing an unique insight into the people who lived in Georgian and Victorian London during this period of rapid growth and social change.

**Data from an Archaeological Recording at Wendover Green Tunnel, Wendover, Buckinghamshire, 2020–2022 (HS2 Phase One)**  
<https://doi.org/10.5284/1120962>

This collection presents the results of an excavation undertaken by INFRA Archaeology, which examined a dense Prehistoric landscape and a nationally important 5th/6th century Anglo-Saxon cemetery, consisting of almost 140 graves with associated grave goods. The collection includes an [interactive map](#) linking spatial data to images and 3d models of each of the burials excavated across the site. This collection provides an extraordinary dataset for the future analysis of Anglo-Saxon burials.



## Interactive map

The collection includes an [interactive map](#) of the project area. Zooming into the map allows users to access the HS2 collections spatially. The map also allows users to view both Lidar imagery and the results from geophysical surveys.

The spatial data from this interactive map are available to download from the [HS2 Heritage Spatial Archive](#), including site locations and the results from all of the geophysical surveys.





# Featured Collection

## British Institute of East Africa

The [British Institute in Eastern Africa](#) (BIEA) promotes research into the archaeology, history, linguistics, and anthropology of eastern Africa. Based in Nairobi and supported by the British Academy, the Institute undertakes and supports research in countries throughout the region, from Zimbabwe to the Sudan.

This [parent collection](#) brings together the digitised collections of archives held at the BIEA relating to archaeological excavations and reconnaissance at key locations in the region. These collections include some of the BIEA's flagship projects at sites like Aksum, Ethiopia, and Kilwa Kisiwani, Tanzania. Some collections detail investigations in parts of eastern Africa – notably the Somali coast – which are now effectively closed to research. This archive seeks to preserve this information for future researchers, and to make it available beyond Nairobi.

The ADS have held digital collections from the BIEA since 2016, however, this year has seen some significant updates including the addition of two new collections and the update of several others.

### New Collections

**British Institute in Eastern Africa Digital Archives: John Sutton Collection**  
<https://doi.org/10.5284/1117706>

This collection comprises imagery from John Sutton's research in East Africa from the 1960s to the 1990s. Former Director of the BIEA, John Sutton, was a prominent figure in the archaeology of Africa.



Luguru house © British Institute in Eastern Africa

Organised by site or theme, these photographs provide a valuable historical record, particularly for those researching house styles in Tanzania.

**British Institute in Eastern Africa Digital Archives: Somalia** <https://doi.org/10.5284/1117728>

This collection comprises field notes, images and slides from an expedition of Somalia directed by Neville Chittick between 1974 and 1984. Chittick's expedition covered Mogadishu and sites surrounding this large, historic city, as well as sites along the Somalia coast.

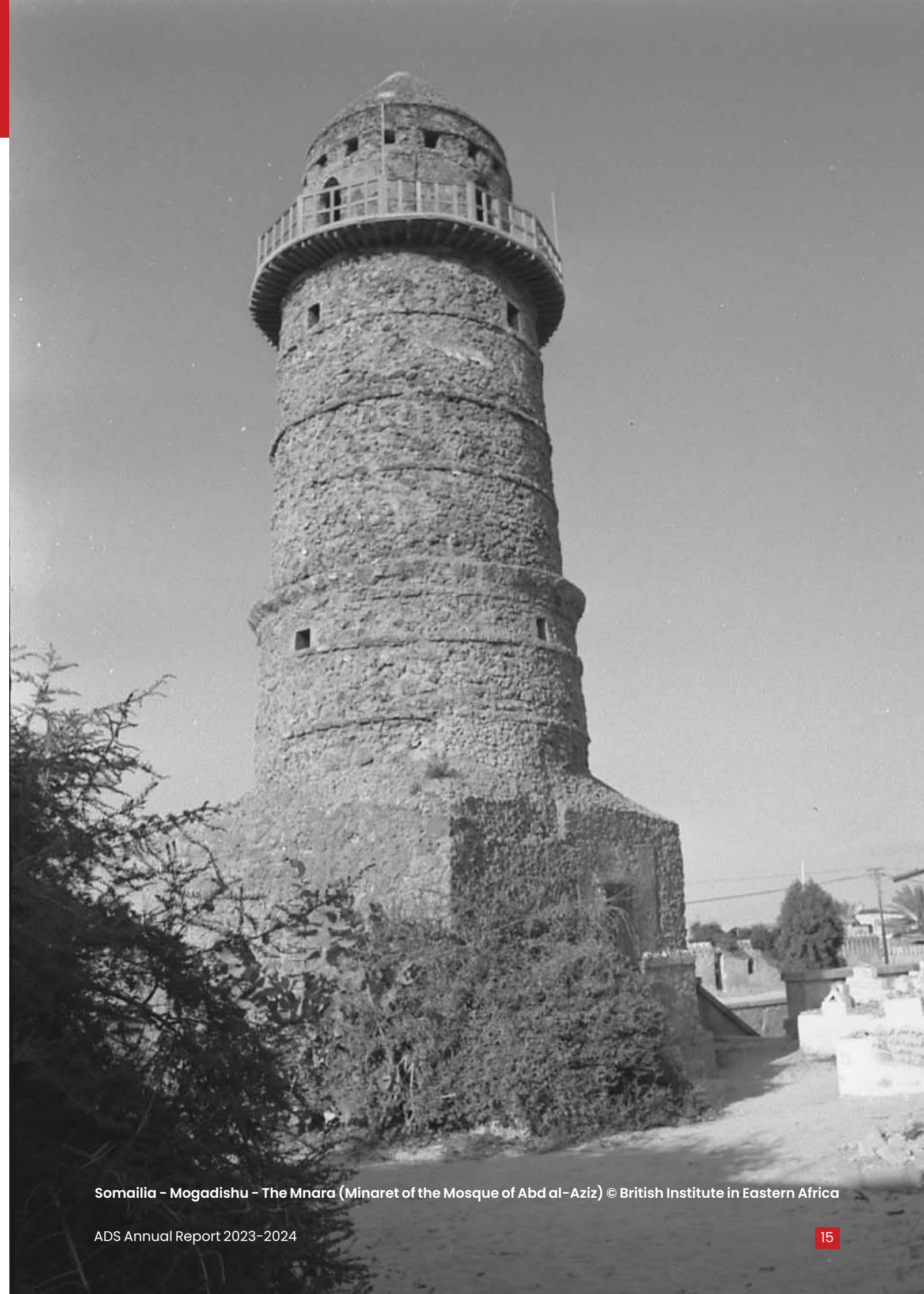
### Updated Collections

- British Institute in Eastern Africa Digital Archives: Konso <https://doi.org/10.5284/1117729>
- British Institute in Eastern Africa Digital Archives: Tanzania <https://doi.org/10.5284/1117727>
- British Institute in Eastern Africa Digital Archives: Aksum <https://doi.org/10.5284/1090372>

*British Institute in Eastern Africa (2016) British Institute in Eastern Africa Image Archive [data-set]. York: Archaeology Data Service [distributor] <https://doi.org/10.5284/1038987>*



Kilwa gold coin © British Institute in Eastern Africa



Somalia – Mogadishu – The Mnara (Minaret of the Mosque of Abd al-Aziz) © British Institute in Eastern Africa

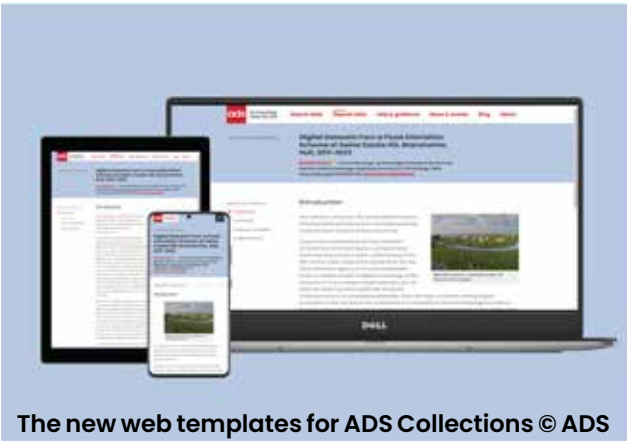


## Overview

Development work over 2023/2024 focussed on improving the interfaces by which data is found and accessed, with key developments detailed in the [ADS Priorities for 23/24 blog](#). Work on the new Archsearch is reported in Resource Discovery, but other significant improvements have focussed on the individual pages by which users access data and reports. Users will have noted the new style of ADS archives (web templates) which for the first time are mobile friendly, as well as ongoing development of the Library.

## New web templates

In March we implemented a major improvement to the delivery of ADS data with a new code base for presenting ADS Archives. The primary aim of the new code was to ensure that our archives are mobile friendly and meet modern accessibility requirements. However, we also took the opportunity to include some improvements to functionality, most notably a revitalised metadata page, which now acts as the default landing page for all archive DOIs. The team working on the project increased the amount of metadata presented on the page, but also took the time to improve layout, presentation, and explanation of terms. One such small, but significant improvement is the focus on signposting of linked resources – be they other ADS archives, online reports, or Museum holdings – allowing a user to have a greater understanding of the context within the wider information landscape. This focus on metadata was also replicated on the new Object Metadata page (see also the Preservation section of this report). All of these features, and more, are discussed in detail in the [Casting an eye on the new web templates for ADS Archives blog](#).



## Open Access Archaeology Fund

Established by Internet Archaeology and ADS in 2016, the Open Access Archaeology Fund was set up with the aim of supporting the publishing and archiving costs of researchers who have no means of institutional support.

This year, thanks to kind regular and one-off donors, a further £1000 has been raised, which will enable us to support more applicants. Since its inception in 2016, the fund has raised over £7100, which has been used to support several ADS digital archives and Internet Archaeology articles.

To find out more about past recipients of the fund, including the exciting published articles and deposited archives please see the [Open Access Archaeology Fund page](#) on the ADS website.

## Website Statistics

The ADS collect statistics for visits to ADS resources via Matomo. The figures below display the page views and downloads for all ADS resources, including the ADS Archives and Library.



Below is a breakdown of key visitor statistics:

- [ADS Archives](#) – 938,888 page views; 202,395 downloads
- [ADS Library](#) – 237,569 page views; 153,699 downloads

## Internet Archaeology Update

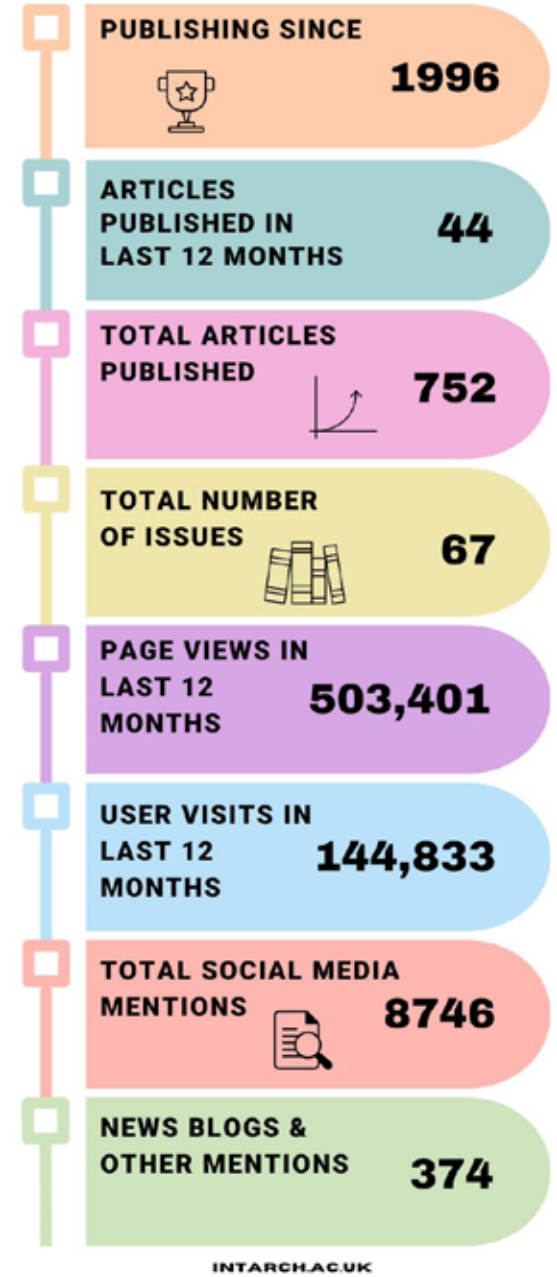
[Internet Archaeology](#) has been busier than ever these last 12 months and we have published a further 44 articles across several issues. The journal continues to be the publication venue for the [European Archaeological Council \(EAC\) Heritage Management Symposium proceedings](#). The latest issue was on the complex but vitally important theme of heritage management for archaeological sites from the 18th to 20th centuries. The 20+ articles explore the practice, theory and challenges posed by archaeology from this period – a period which witnesses industrial and urban development as well as evidence of what is now termed ‘conflict archaeology’ and heritage arising from war and terror (see Article highlights).

It has been a conscious editorial decision to position Internet Archaeology at the intersection of the academic and commercial archaeology ‘worlds’ over the last few years and this is definitely proving to be fruitful, with enquiries and proposals from across the UK sector now being the norm. The last 12 months have seen new publications authored by staff from CFA Archaeology, Cotswold Archaeology, DigVentures, and Oxford Archaeology alongside the more regular academic submissions from all over the world.

The journal continues to work closely with ADS on aspects of HS2 dissemination. With the groundwork now mostly laid, we have embarked on the publication of a series of HS2-funded articles and data papers with many more in the pipeline.



## INTERNET ARCHAEOLOGY BY NUMBERS



Descending to San Giovanni metro station in Rome (Italy) © Almansa-Sánchez



# Article Highlights

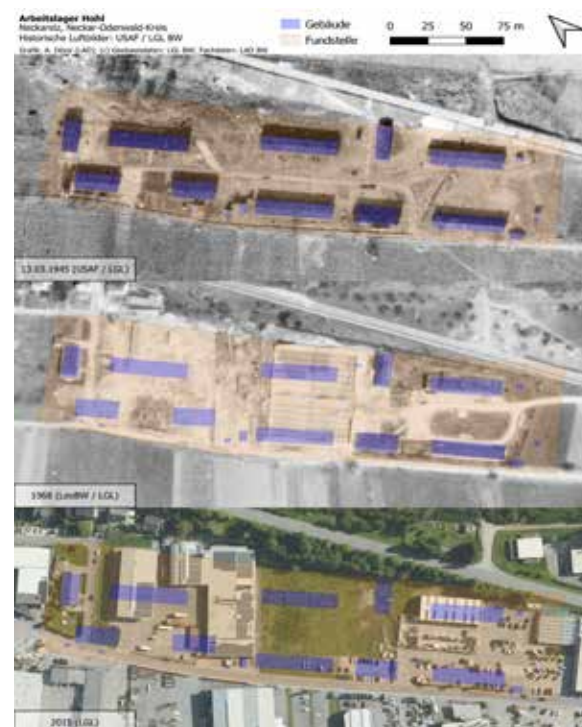
## Locating Former Nazi Terror Sites: A Methodological 'How-To' for Archaeological Research and Heritage Management by Barbara Hausmair and Attila Dészi

<https://doi.org/10.11141/ia.66.11>

Just one of 23 articles in the EAC themed issue, this article presents a systematic workflow for recording former sites of Nazi terror, which was developed in the framework of the Natzweiler-Concentration-Camp-System-Project based at the Heritage Office of the State of Baden-Württemberg. It provides a methodological 'How-To' for creating archaeological inventories of former Nazi camps, associated sites and whole 'landscapes of destruction', gives hints at where to locate useful primary sources, but also critically reflects on challenges encountered during the project. All the sites mentioned in the text link out to actual locations via Google maps.

Forced labour camp Lager Hohl, Neckar-Odenwald-Kreis. Comparison of aerial photographs from 1945, 1968, and 2015.

© Top: USAAF © KMBD, LGL; middle: LeoBW/LGL; bottom: © Geobasisdaten LGL; mapped data: A. Dészi.



## The Portable Antiquities Scheme and the potential of non-metallic finds: A Viking Comb from Shotley, Suffolk by Steven P. Ashby, Lewis Tomlinson, Samantha Presslee, Jessica Hendy, Alex Bliss, Faye Minter and Dan Brock

<https://doi.org/10.11141/ia.61.11>

This article presents a case study in maximising the potential of publicly collected archaeological finds, through collaboration between finder, recorder, curating institution and the research community. It focuses on an object reported to the Portable Antiquities Scheme, of a type not usually well represented among metal-detected finds: an early-medieval antler hair comb. Typological and biomolecular analysis of the comb – found on the shores of the River Orwell, Suffolk – shows that it was manufactured in Scandinavia in the mid-10th century, before being brought to south-east England. This is the first comb found in England to be identified as Scandinavian via biomolecular means, and represents an important, scientifically-verified demonstration of contact between the regions in the period following initial settlement. The publication includes an [RTI visualisation](#) and a [3D model](#).



The Shotley comb © Suffolk County Council

## A Medieval Drawbridge Pit and the Stories it Tells Us, Excavations at Pontefract Castle, 2019–2020

<https://doi.org/10.11141/ia.61.4>

Wakefield Metropolitan District Council commissioned DigVentures to undertake a programme of archaeological investigations as part of the Gatehouse Project, a community-focused archaeological research project based at Pontefract Castle, West Yorkshire. The social impact of the archaeological investigations, including project outcomes for heritage, for people and for the community, have been analysed and published in an [earlier Internet Archaeology article](#). This article focuses on the archaeological evidence recovered during the excavations, and the conclusions drawn about the construction and chronology of the gatehouse at this part of the site. A related data paper ([Archaeological Excavations and Social Impact at Pontefract Castle](#)) was also published in the journal and both link to the related ADS digital archive (see Collection highlights).



Bone parchment-pricker/stylus from Pontefract Castle © DigVentures

## Open Archaeology, Open Source? Collaborative practices in an emerging community of archaeological software engineers by Zachary Batist and Joe Roe

<https://doi.org/10.11141/ia.67.13>

This article investigates modes of collaboration in the emerging community of practice using 'open-archaeo', a curated list of archaeological software, and data on the activity of associated GitHub repositories and users. An exploratory quantitative analysis is conducted to characterise the nature and intensity of these collaborations and map the collaborative networks that emerge from them.

## Forthcoming

### The Agency of Civilians, Women, and Britons in the Public Votive Epigraphy of Roman Britain

The epigraphic corpus provides some of the best evidence for understanding what role individual agency played in religious practice, as many inscriptions record the occupation, gender, or origins of the dedicator. The authors examine how the worship of native deities survived in public Latin epigraphy, either on their own or in a syncretic context, and how civilians, women, and local Britons participated in this new technology of worship, especially to newly-imported deities. This article will feature an interactive map displaying sites studied and will also link to related RIB records online.

### The Pulborough Gold Torc: a fourth to third century BCE artefact of European significance

Two fragments of a decorated buffer terminal gold torc were found in 2019 near Pulborough, West Sussex. The overall shape is that of a fourth to third century BCE buffer terminal torc found in western Europe, particularly France, Germany and Belgium. After its discovery, and reporting to the Portable Antiquities Scheme, the torc was subject to analysis and examination. Further detailed technical examination was carried out at the British Museum and this is what will be described in this article. A zoom function will be applied to the many images to present this beautiful artefact in close-up detail.



# Resource Discovery

## Overview

Work this year has continued on a new Archsearch interface, which is based on the technology used by the [ARIADNE search portal](#). We continue to ensure that metadata for ADS resources is also shared with external aggregators, most notably ARIADNE but also subject-specific services such as Unpath'd Waters and MEDIN for the maritime historic environment, and the Keeper's Registry for holdings of Journal Series held within the ADS Library. Work for 2024/2025 will focus on the launch of the new Archsearch but also improving the technical workflows by which this metadata is made available.

## ARIADNE RI

The ADS has continued to play a lead role in the [ARIADNE RI](#), a not-for-profit membership association (AISBL) registered under Belgian law, with the ADS Director acting as Vice-President, and the University of York also a full member.

The core objective of the AISBL is to maintain and develop the ARIADNE portal, which now provides

access to more than [4 million resources](#). ADS is increasingly taking on the role of loading new data to the ARIADNE knowledge base, with several new or updated resources added in 2023-24, including the DCCD, an international dendrochronology database, hosted by DANS (Netherlands). The ARIADNE RI now has 31 institutional members, with the Discovery Programme (Ireland) and the Entangled Africa network (Germany) being the latest to join in 2023-24, with their data to be added in 2024-25.

## ArchSearch V

The fifth iteration of Archsearch – the ADS online catalogue – is very close to completion! Since it was first launched in 1998 the Archsearch interface has provided access to ADS resources, and key UK inventories and datasets. The new interface follows the same model, but making it much easier to filter by resource, geographic area, keywords, creators and contributors, and temporal coverage.

Launch of the new interface will be later this year. Communications and training resources are being developed so that users will be able to familiarise themselves and understand all the new features.



Outreach map – click to explore an online version © ADS

# Advisory Services

## Outreach

ADS Staff members have attended and delivered presentations at a number of academic conferences across the world in the last year including the Computer Applications and Quantitative Methods in Archaeology (CAA) UK Conference in [Edinburgh](#) (as reported in this [blog post](#)), CAA International conference in [Auckland, New Zealand](#), Chartered Institute for Archaeologists (CIfA) in [Chester](#) and, coming up in August, European Association of Archaeologists (EAA) in [Rome](#).

The interactive map opposite shows the location of presentations by ADS staff since 1998. Click the image to explore this resource. The complete list of presentations, along with copies of many of them, is available on the ADS website's [Presentation](#) page.

## Membership

Below is a list of committees and groups in which the ADS has a representative:

- Archaeological Archives Forum
- Digital Antiquity Board of Directors
- E-RIHS-UK (meetings had lapsed until this year)
- FAIR+CARE Cultural Heritage Network
- Forum on Information Standards in Heritage/ Historic Environment Information Resources Network
- Humanities and Cultural Heritage Italian Open Science Cloud (H2IOSC) Advisory Board
- Institute of Digital Arts and Humanities (IDAH) service providers
- MEDIN Communications Working Group
- MEDIN Historic Environment Data Archive Centre
- DPC Bit List Council
- DPC Research and Practice subcommittee
- CIfA Information Management Group
- World Data System
- Community Standards for 3D Data Preservation Forum

## Training events

As part of core funding we receive from the AHRC's IDAH (National Infrastructure for digital innovation and curation for arts and humanities) programme, we have designed and delivered a half day training course on data management and open research to increase the number of data archives deposited following the completion of research projects.

Following our initial pilot in Canterbury last June, we have now delivered in person training courses at five universities (Durham University, University of Leicester, University of Bradford, UCL and the University of Edinburgh) to almost 100 researchers.

In addition to this program we have provided bespoke training to several organisations including University of Leicester Archaeological Services ([ULAS](#)) and the [EAMENA Project](#). We have hosted both Masters and Doctoral students from the University of York for short placements as part of their studies. Several training programs are already scheduled for next year. This notably includes a week long Training School on Data Management and Digital Preservation for International colleagues as part of the [ATRIUM project](#). If you are interested in receiving training from experts here at the ADS please contact the [ADS Helpdesk](#).

## ADS Newsletter

Back in October 2023, the ADS launched a new electronic [newsletter](#). This new iteration, which is published every 3 months, provides a single point of reference for our key activities. The newsletter will contain all the latest news from the ADS including information on new collections, upcoming events, new publications from Internet Archaeology, new blog posts from Soundbytes, recent events attended by ADS staff members and recent research grant success. [Read this news story on the ADS website](#) to find out more and sign up to the newsletter. For long term followers of the ADS you might remember the previous iteration of the newsletter, which can be accessed via the [ADS archives](#).





# Developing Standards

## Overview

This year has seen a big change in the way collections are disseminated with the new website templates, however, some of these changes are also linked back to developments in internal policies and standards. Notable changes have been a simplification in the way ADS disseminates tabular data, such as databases and spreadsheets, hopefully making data easier to download and reuse. Similar changes to policy have also been made for image data in DNG and DICOM formats, largely as a result of these formats seeing more widespread use.

ADS curatorial staff (CATS) have continued to be visibly involved in standards development in the wider digital preservation community, most recently in the new DigiPres North group with ADS staff attending and [presenting at meetings](#). Involvement in the work of the Digital Preservation Coalition (DPC) has also continued with curatorial staff presenting at events a number of times over the last twelve months alongside continued contributions to DPC Technology Watch reports and the Bit List.

Internally, ADS curatorial staff continue to meet monthly to discuss working practices – even more key with an ever growing team – as well as taking a week out in January for a “CATS Week” looking in detail at various aspects of ADS curatorial work and policy, as discussed above in Preservation Services. In addition, curatorial staff have taken time to look specifically at the issues surrounding accessioning large archives and sensitive data appraisal.

As always, wider project involvement has allowed ADS to look beyond our immediate day-to-day dealings with data, into areas of standards and best practice in the wider archaeological community. The Unpath'd Waters project has allowed a significant update to the existing ADS Guide to Good Practice on Marine Survey. Working with project partners at Bangor University, a new guide is currently under review and scheduled for release later in 2024. The ATRIUM project, again as just one part of numerous deliverables, is also allowing ADS to look into IIIF implementation, how it can both fit within our existing structure while allowing greater access and reuse of existing datasets.

## Curatorial Policy

Work on further developing the ADS Catalogue records has continued this year. Work that has been implemented includes the batch editing of Object Management System (OMS) records using a new internal OMS interface. Catalogue projects in development include looking at ways to use the metadata associated with our 1.5 million object records to provide automated enhanced browsing and discovery functionality through the ADS archives new web templates. This will be undertaken in conjunction with work aimed at automating some of our more manual archiving processes.





# Supporting Reuse

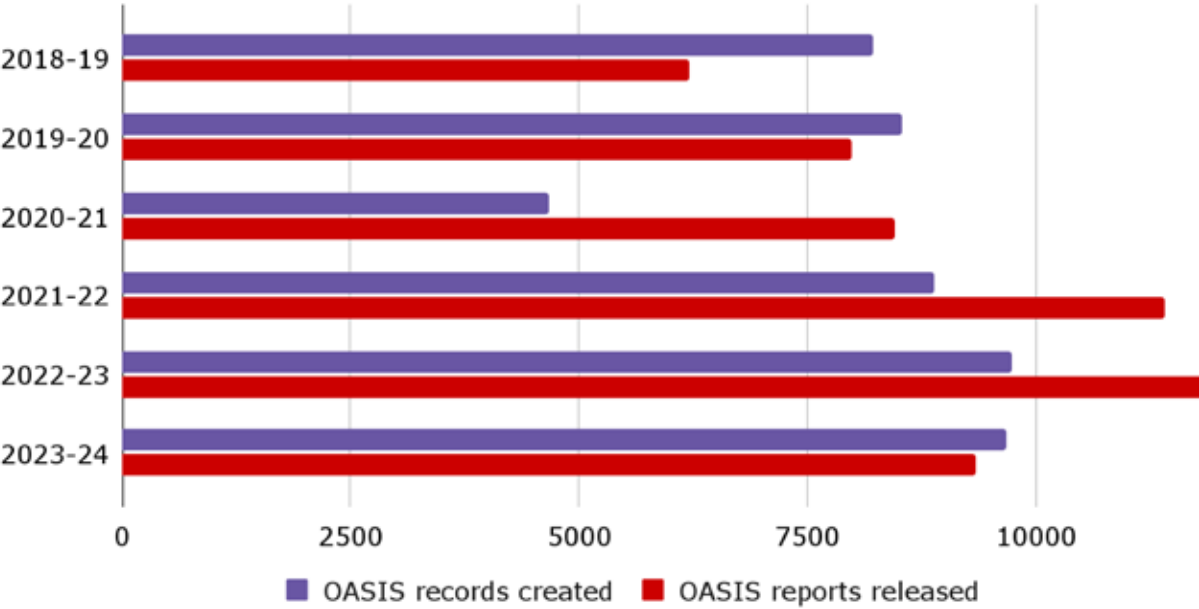
## Overview

The ADS continues to advocate for the FAIR data principles and encourage reuse of all of our collections including unpublished reports. This year we have continued to develop [OASIS](#). The online system for reporting investigations into the historic environment, and participated in projects such as TETRARCHs to further support our commitment to archaeological data use and reuse. Moreover, following last year's revamped communications strategy, we have developed and are about to launch a campaign to encourage the greater use of DOIs as well as a survey to ascertain user access with the aim of developing several new APIs. Finally we have also developed a new training portal, allowing users for the first time to access ADS training materials in Data Management and Digital Preservation.

## OASIS

This year has focussed on two main areas of development. The first are two new OASIS+ modules for the recording of Zooarchaeological and Plant macro remains data. Based on requirements and intensive feedback from specialist users, the forms are currently being developed, with a view to testing in Autumn 2024 and release into the live application later in 2025. The second focus has been to reformat the Scottish version of OASIS so as to improve the efficiency of reporting to DES. Based on user feedback, these improvements should be live by the next DES reporting deadline in November 2024. Outside of technical development, OASIS continues to be well-used, with high numbers of both records created and reports released this year.

### OASIS Records and Reports



## Training Portal

The ADS has a long history of providing training in data management and digital preservation to both the archaeology and preservation community. Over the past 18 months we have been able to expand our provision with the establishment of a Training and Communications Manager. Now we are exploring ways in which we can share our training resources in an open and accessible way, in line with the ethos we employ with our collections. Open Educational Resources, as outlined by UNESCO, are learning, teaching and research materials that have been released under an open licence that provide free access, to reuse or repurpose by others. In the coming months we will be launching the ADS Training Portal, a web resource that will offer access to our training materials for everyone to use and repurpose. Initially, the portal will feature 5-6 resources, with new resources added quarterly.

## TETRARCHs

As a key partner in Transforming Data Reuse in Archaeology ([TETRARCHs](#)), this year the ADS undertook a range of activities working to better understand data reuse in archaeology. Of particular interest was an international workshop with data managers and mappers held in March, where participants reviewed a draft of the TETRARCHs data model designed to make archaeological data more accessible to a broad range of users. The model and response was presented at the Computer

Applications in Archaeology Conference in Auckland in April, and will form the basis of further research into how these changes may be incorporated into existing ADS workflows.

## Digital Object Identifiers

Over the last six months, we have been exploring ways to encourage the use of Digital Object Identifiers (DOIs) when referencing ADS collections. DOIs provide a persistent and unique link to digital content, ensuring long-term access and citation stability. Starting in September, we will launch a campaign to educate users on the importance of DOIs and promote their use. Over the next two months, we will use blog posts, videos, infographics, and online events to increase DOI adoption. This campaign aims to ensure consistent use of DOIs for referencing our collections in the future.

## API Survey

The ADS offers high-quality digital resources via the Archives, Archsearch, and Library interfaces. We aim to enhance user access to these services by developing several new APIs, similar to the [OASIS API](#). Over the last six months a user survey was designed to identify useful APIs and delivery methods. This survey will be published in the near future and promoted through ADS communication channels.





# Research and Development

## Overview

Research and Development projects continue to inform the work of ADS and provide additional funding, either as lead body or as a collaborating organisation, keeping us at the forefront of the latest IT advances. With the re-association of the UK with the European Commission's Horizon Europe programme, our lead role in the [ARIADNE RI](#) has helped us become particularly successful in winning European funding. [ATRIUM](#), [ECHOES](#) and [SHADE](#) all launched in 2023-24, and we also heard that two further projects – AUTOMATA and ARTEMIS – will commence in 2024-25.

Our most exciting R&D news, however, is that we will shortly be hosting the Heritage Science Data Service (HSDS), which provides the Digital Research Service for the AHRC's RICHES programme (Research Infrastructure for Conservation and Heritage Science). We learnt of our success midway through 2023-24 and planning is now well underway for the new service to start from September 2024.

## ATRIUM



[ATRIUM](#) (Advancing FrontTier Research In the Arts and hUManities) commenced on 1 January 2024, with a [kick-off meeting in Berlin on 1-2 February](#). The four-year project brings together the core European research e-infrastructures for the Arts and Humanities: DARIAH, CLARIN, OPERAS, and the ARIADNE RI, with ADS also included as a separate beneficiary. ATRIUM seeks to draw on examples from archaeology



to showcase the potential of digital infrastructures to support research, with the development of workflows and online demonstrators for five data types: text, 2d images, 3D models, sound and GIS. ADS is leading the work on the demonstrators, and is also responsible for organising the [Transnational Access Scheme](#). This offers up to 200 researchers the possibility to apply for a fully-funded placement at fourteen of the leading Data Management organisations across Europe, including ADS.

## ECHOES



We are particularly pleased that the ADS and the ARIADNE RI were each invited to join [ECHOES](#), a consortium of over 50 organisations led by CNRS, the French national research body. ECHOES was the successful consortium selected by the European Commission to establish the European Collaborative Cloud for Cultural Heritage (ECCCH), "a shared platform for heritage professionals and researchers to access data, innovative scientific and training resources and advanced digital tools co-developed by the heritage community". ECHOES is a €25m investment over 5 years, commencing 1 June 2024. The two UK partners, ADS and the National Gallery, are funded under the UK Horizon Europe guarantee. The ARIADNE RI is leading on communication and dissemination and ADS will be involved in four areas: capacity building and training, setting the cloud environment, long term sustainability, and cloud governance. ADS is also playing a lead role in AUTOMATA, a second project funded under the ECCCH programme, which will commence in September 2024.

## SHADE

The recently completed [SEADDA COST Action](#) was awarded 12 months follow-on funding from November 2023 in the form of a COST Innovators Grant (CIG). The CIG – Sharing Heritage and Archaeological Data Effectively (SHADE) – is supporting the development of the ARIADNE RI as an Open Science solution to increase the participation of the wider archaeology community in opening up their data. The SHADE CIG is supporting the ARIADNE RI in creating a charging model based on the actual costs of adding data sets to the Knowledge Base,

promoting the ARIADNE RI internationally, and setting targets for the number of datasets and new members to be added per annum. It is also providing training and permitting a wider cross-section of archaeologists and heritage managers, from a larger number of countries, to participate in European funding proposals. The primary deliverable is a business plan to ensure the ARIADNE RI is sustainable.

## TETRARCHs



Transforming Data Reuse in Archaeology ([TETRARCHs](#)) is now in its second year. The project team assembled for a mid-project meeting in May, hosted by our project partners based at Vilnius University. We reviewed our activities to date, discussed our research results, experimented with storytelling, and planned our summer fieldwork in Slovenia, Sweden, Italy and Greece, where our creative practitioners will join us to experience fieldwork and incorporate these experiences into their work. In addition to a range of dissemination activities, we continued "[What can data do for us?](#)", our very popular online seminar series with over 1,100 registered attendees based in 45 countries.

## Project Radiocarbon

Project Radiocarbon is nearing completion. All C14 dates from the islands of Ireland and Britain have been compiled into a single schema, with a final

round of data cleaning to ensure consistency across the 15,000+ records. The final interface to the data will be reviewed by the project team, and released later this year. Agreements with relevant national heritage agencies will ensure the data is updated at regular intervals.

## Unpath'd Waters

The [Unpath'd Waters](#) project draws to a close in 2024. As one of five AHRC-funded Towards a National Collection Discovery projects, it has demonstrated the research potential and public interest in integrated online access to the rich maritime heritage of the seas around the UK. The ADS has continued to add new data to the [portal](#), including the CITIZAN database based on community archaeology recording of the coastal and intertidal zone, now also an ADS archive, as featured in the Collection Highlights section of this report. The portal is featured in a video which is on show in the Nautical Archaeology Society's Discovery bus touring the UK in summer 2024. In addition, the ADS has worked with Bangor University to update the marine survey Guide to Good Practice, as featured in the Developing Standards section of this report.

## Rewilding Later Prehistory

This year has focussed on developing a specification for the OASIS+ modules for plant macro remains and zooarchaeology. This has incorporated an initial design phase, based on requirements from specialist communities, and thereafter review and feedback of online mockups. Final specifications have now been agreed, and are now being built into a development version of OASIS for public testing and feedback in late 2024.

Lime Kiln, West Ruislip Golf Course, Hillingdon – Wendover Green Tunnel © High Speed Two Ltd





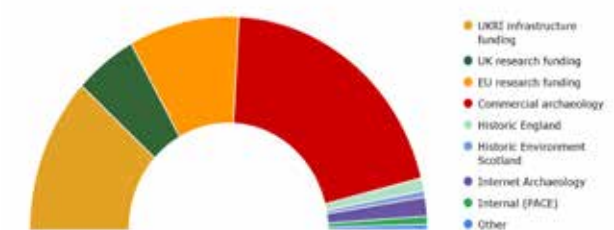
# Management Services

## Finance Review

During the financial year 1 August 2023 – 31 July 2024 the ADS and Internet Archaeology had total income of £1,463,912 and total expenditure of £950,827. This represents an increasingly strong financial performance, reflecting further growth in archiving of the digital outputs of commercial archaeology, continued infrastructure support from AHRC under the IDAH programme, and strong research grant performance, with new European funding.



We have once again taken the opportunity to increase our reserves account balance by £72,000 to £380,141. The outlook for 2024–25 continues to be positive, with major new grants coming on stream, including the HSDS funding.



## Systems Management



## Staffing

In November we said goodbye to Richard Paxford who had been with us for several months as a maternity leave cover and took up a new role at the MOD. In March we welcomed back Becky Hirst from her maternity leave, and we were delighted to meet new arrival Bennet! April also saw the welcome return of Jamie Geddes, taking up the position of Digital Archives Assistant after a year working on the UoY Virtual Learning Environment. Also in April, Dr Émilie Page-Perron joined as a Data Engineer, and has begun work on ATRIUM related tasks for metadata aggregation and an IIIF server. In June, Dr Richard Lee joined as Collections Development Officer, working with Katie Green on the PACE project to expand ADS services to the archaeological profession and other sectors. In July, we appointed Dr Solange Bohling as a new Digital Archives Assistant; Solange having previously worked as an intern on the HS2 project over most of 2023/2024. Finally, at the very end of the year we've said goodbye to Amy Baker (ADS Intern) who has been working on HS2 and PACE projects and is now taking up a new role at Historic England as a digital preservation assistant.

## Equality, Diversity and Inclusivity

This year the ADS contributed to the department's application for a Athena Swan Silver Award, [which was granted in April 2024](#). As part of this process, some updates were made to the manner in which the ADS participates in EDI activities. The ADS now has a designated representative on the Department's EDI Committee who highlights ideas and concerns of ADS staff members. Moreover, EDI issues are now a standing agenda item at our Quarterly Executive meeting, attended by all ADS colleagues.



Infrared imagery of the New Forest © Forest Research, The Verderers of the New Forest, New Forest National Park Authority, Forestry England, Cambridge University Technical Services





Drone image of Lime Kiln, The Pippin, Calne © Worcestershire Archaeology

**Visit [archaeologydataservice.ac.uk](https://archaeologydataservice.ac.uk)**