



**Archaeological Digital Archiving Protocol (ADAPt)
Project 6896**

Digital Preservation Policy

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1 Introduction

A founding principle of the Archaeological Digital Archiving Protocol (ADAPt) is that managing digital data through-out the course of a project is an essential part of making a good archive. Creating and saving digital material are everyday tasks for all staff, the role of ADAPt is to assist everyone in doing these everyday tasks in the most effective way to ensure this data are accessible for subsequent research. The Archaeological Archives Team will support data creators, who are solely responsible for the archive, in doing these tasks and oversee the final transfer of digital material to a long-term repository.

This Digital Preservation Policy (DPP) sets out the principles that underpin successful data creation and management and explains how they relate to working practices within Historic England and well established digital archiving standards as outlined by the ADS. It highlights the risks that must be addressed through good preservation, such as obsolescence, proprietary formats and the need to maintain the data throughout its lifecycle. The policy also references digital archiving standards and accepted best practice from across the sector.

Effective data management must be considered at the outset of a project. This is the most efficient and cost-effective means of preparing digital material for deposit with an archive. ADAPt enables users to develop well-organised and documented archives with the least amount of change to practice.

2 Interfaces

2.1 Legal and Statutory framework

All data created by Historic England employees are the intellectual property right of Historic England.

All material created by employees of Historic England's predecessors (e.g. the Department of the Environment and Ministry of Works), prior to the establishment of English Heritage in 1984, is Crown Copyright. Historic England does not own the intellectual property rights of Crown Copyright material, but is licensed to administer this material by HMSO.

Historic England is bound by a number of legal and statutory requirements which impact upon this strategy. These include:

- Public Records Act, 1958
- Data Protection Act, 1998
- Freedom of Information Act, 2000

The Public Records Act requires that Historic England select records for permanent preservation and transfer them, not later than thirty years after they were created, to either The National Archives or another Approved Place of Deposit.

These requirements must be taken into account when considering data management, dissemination and deposition.

Internal

2.2 Corporate Policy

Currently the Historic England Archive (HEA) does not have a digital archives policy or full digital archiving facilities, Records Management are also reviewing their data management. Until these are established the repository of digital archives will be decided on a case by case basis.

2.3 Management of Research Projects in the Historic Environment (MoRPHE)

ADAPt is relevant to NHPP projects. Project stages are impetus for finalising archive and transferring the data to the Archaeological Archive Team. ADAPt details the planning requirements for archiving and data management.

2.4 E&A Project Procedures Manual

The Project Procedures Manual is incomplete and stops at Site Archive Completion, for procedures from later stages. In the medium term ADAPt procedures will be merged with the Projects Procedures Manual.

2.5 E&A Intrasis Instructions

The Intrasis procedures support ADAPt in areas such as data capture, security, standardised recording and metadata creation.

2.6 E&A Recording Manual

There is limited crossover between the Recording Manual and ADAPt, but ADAPt has image data capture guidelines which are relevant for site recording.

2.7 Review of Archiving and Dissemination Flowlines (RADF)

ADAPt outdates the file naming conventions, file formats and decisions on repositories. RADF remains relevant for all other content, and ADAPt supports this. However, it is only relevant to the Excavation and Analysis Team where the RADF applied to the entirety of Investigation and Analysis. Equally, the principles as set out in RADF are still essential to this policy.

2.8 Archaeology Data Service

The Archaeology Data Service not only serves as the repository for much of the data we create but has also developed guidelines and working practices that are the backbone of ADAPt.

3 Scope

The scope of the policy covers:

- Digital resources produced by Excavation and Analysis that have long -term value and are required for preservation.
- Digital resources produced during research commissioned by Excavation and Analysis.
- How ADAPt aligns this work with digital archiving best practice

The policy does not cover all the digital information created by the Excavation and Analysis Team. Specifically excluded are:

- Business records which are covered by corporate records and management policies.

4 Data Creation Principals

ADAPt has identified that the following types of digital resource have archival value:

- Digital data created by NHPP and Heritage 2020 Projects
- Digital records which form part of an archaeological project archive, as defined in RADF, MAP2, MORPHE and the Centre for Archaeology (CfA) Model of Archival Description (Brown and Perrin, 2000)
- Digital data resulting from the scientific research of archaeological material
- Digital documents which form part of the Research Report Series and its predecessors
- Digital data requiring long-term preservation and access that is created during research that is not part of a project
- Guidelines and supporting documents
- Reference collections databases and supporting documents
- Digital data generated for the purposes of education and outreach
- Resources which meet the Archival Policy but for which no viable repository currently exists
- Other digital information which provides evidence of the work of the Excavation and Analysis Team.

This policy covers all our research data, not just that created by projects.

Defining that data has archival value means that they require long term storage, preservation and access and should be transferred to an appropriate digital repository.

4.1 Planning

Consideration must be given to the requirements of data management, long-term storage and access for all data which are created as part of Excavation and Analysis work.

This will ensure data are:

- Organised
- Defined
- Documented
- Prepared for deposition in appropriate formats
- Created in accordance with appropriate standards
- Suitable for transfer to a digital repository
- Consistent with other datasets
- Secure

Planning for data management and long-term preservation has been a requirement in RADF, MoRPHE and the CfA Digital Archiving Strategy. ADAPt follows the same concept, but in requiring all work to have a Data Management Plan (DMP), ADAPt

provides the tool for documenting this and ensures that consideration is given. ADAPt acts as an overarching DMP from which staff can create their plans. A DMP facilitates the identification of any deviations from recommended practice, allows data creators to address the consequences of that and consider how it will be resourced. For example, if you wish to deposit non-archival file formats you will need to ensure it can be archived effectively, which will mean ensuring you have budgeted for the ADS to research the best way to do this.

A DMP is key to effective data management and will enable project managers and data creators to ensure that they are following the procedures required to make their data suitable for archiving. The continual creation and maintenance of file and project-level metadata are vital. ADAPt introduces tools that will assist in the creation of metadata, while procedures have been updated to show when the addition of metadata are required. The creation and maintenance of metadata are a responsibility of all data creators. This works best when it is done throughout the lifespan of the project, not stored up until the end.

4.2 Data Acquisition Principals

Data Acquisition can occur at any project stage, from either internal or external sources. The DPP is applicable to data obtained from external third parties, such as finds specialists. Where data have been created by another Historic England team as a separate event in the same project, such as photogrammetric or geophysical survey, that team has responsibility for data management and archiving and ADAPt will not be applied by the E&A Archives Team, although the protocol will be available for other HE personnel to follow. While it is not possible to require other teams or external bodies to align to ADAPt, doing so will ensure that projects run more smoothly.

It is important that providers follow an agreed specification for data creation, which may include the use of particular field names or thesauri. This will ensure the quality of the data and allow it to be merged with internal data holdings.

All contracts between third parties and Historic England must specify that the data created will be the intellectual property of Historic England. Where this is not possible, staff must ensure that Historic England holds an appropriate licence for any data which are disseminated or submitted for archive. This will ensure that Historic England can effectively use, archive and disseminate the data.

4.3 Copyright

If Historic England does not hold intellectual property rights or an appropriate licence then the data will not meet selection criteria and cannot be deposited with the rest of the archive.

Unauthorised use of third party intellectual property could expose Historic England to legal action. Staff must therefore ensure that Historic England has an appropriate licence for, and obeys all conditions pertaining to, the reproduction and reuse of any third party material in their work. Staff must also be aware that that electronic reproduction and reuse (for example, via the Internet) may not be allowed under the terms of existing licences, and are responsible for obtaining all necessary

permissions in respect of third party data which they use, and for ensuring that all conditions which apply to electronic dissemination are fully met.

See Data Acquisition Guidance.

6 Data Management Principals

6.1 Storage

All data must be stored on a network drive, where it will be automatically backed-up on a daily basis. The only exceptions to this rule are:

- Data stored locally when away from the office. All data must be transferred to the network immediately upon return and all staff are encouraged to implement systems that facilitate connecting to the network more frequently. There must be clear procedures developed that will ensure the data are backed up regularly and copies of the data are sent back to Fort Cumberland for secure storage on a regular basis.
- Stand-alone Intrasis PCs for site; the procedures for this are documented in Intrasis Superuser and Project Manager Guides (S:\oldshare\Projects\Intrasis\03 Superuser and Project Manager Guides).
- Some PCs connected to specialised scientific instruments are not networked because they are maintained by the instrument supplier. All data must be transferred from these PCs to network storage as soon as possible after creation to ensure backing-up.

Staff should be aware that on leaving Historic England it is standard practice to delete users H: drives. H: drives should not be used for long-term storage of research data.

6.1.1 Sensitive Data

Sensitive files may be excluded from the requirements set out in ADAPt, for example, it may not be appropriate for them to be stored in a shared location. This should be dealt with on a case by case basis and exceptions should be documented and planned for in the DMP.

6.1.2 Sharepoint

Sharepoint sites are increasingly common during projects to share data between teams or with staff not based at Fort Cumberland and soon with external project partners. The use of Sharepoint however increases the risk of multiple copies of files being stored in different locations, so it is important to manage the site to prevent this:

- The Project folder (or equivalent) is the primary store for data
- The need for a Sharepoint site should be identified in the project design (PD)
- The use and location of the Sharepoint site should be documented in the DMP
- The project folder should contain a link to the Sharepoint site
- All team members must be made aware of the Sharepoint site

- The Sharepoint site should be used for sharing copies of data, not for storing data
- Sharepoint is a collaboration tool, not a data management tool.

6.2 Archive Accession

It is policy for the Archaeological Archives Team to store a copy of data identified for archiving. Copies of files transferred to the Archaeological Archives Team will constitute the master copies. This ensures that a second copy of the data are stored in a separate, more secure location. Data identified for archiving by the creator/project manager will be accessioned by the Archaeological Archives Team. This is similar to the process that exists for archiving physical documentary archives:

- Data will be selected by the data creator, the member of staff responsible for commissioning the creation of data, or the project manager
- Selection decisions will be made using the *Selection and Appraisal Criteria*
- Data will be transferred as it is completed or at the end of each project stage
- Only complete data will be transferred to the Archives Team
- The metadata must also be completed and the appropriate file naming conventions used
- The deposition of data will be documented on our collections management system and the file lists will remain in the Archives folder structure
- The accessible version of a file should not be altered.

Exceptions

- Intrasis, however zipped backups of all databases will be retained at the end of each project stage and stored with the Archives Team
- Other data that is location dependant

For these exceptions only the location of the data will be documented.

6.3 Destruction

All other data which fails to meet the requirements of the archives, collections and corporate policies will be considered for destruction.

6.4 Archive deposition

Upon completion of a project, or other program of work, it is policy for data which meets the DPP to be transferred to an approved repository for storage, access and long-term preservation.

Approved repositories include the Historic England Archive (HEA) and the Archaeology Data Service (ADS). The HEA does not at present have the capacity to preserve all types of digital data, and because it also does not currently have a complete Digital Archives Policy, file format and metadata requirements have not been finalised (R Dickinson, per comms), in light of this all ADAPt requirements align to the requirements of the ADS. The ADS provides a secure facility for the curation of digital material that is not within the scope of the HEA. The repository for the archive will be decided on a case by case basis.

The following decisions have been made:

- The deposition of Intrasis data will be with the ADS.
- The deposition of images will be with the HEA.

ADS guidelines for file format and metadata requirements will be used for all data, including files identified for transfer to the HEA.

NHPCP project data

It is Historic England policy for digital material from externally funded NHPCP projects to be archived with the ADS and that must include primary data.

The archiving of NHPCP project data is the responsibility of the originating body and files should be directly transferred to them by the data creator. See *the procedure for managing NHPCP data*.

6.5 Backlog

Data created before the implementation of ADAPT do not necessarily have to be brought into alignment. For datasets that are still being worked on, certain aspects of ADAPT will need to be implemented to meet the requirements of the repository. Each year, the Archaeological Archives Team will produce a backlog digital archiving program based on the priority projects identified by the other teams.

6.6 Geographical Information Systems (GIS) & Computer Aided Drafting (CAD) Data

The requirements for data management and archiving GIS differs slightly from those documented in ADAPT:

- Data created for the Corporate GIS must meet UK Gemini metadata standards.
- Other project data will be deposited with the ADS (data can also be deposited the HEA).
- The metadata requirements of the ADS are based on UK Gemini, but are not identical.
- Unique data only should be deposited.

Detailed specialist advice should be sort from the Archaeologist (Spatial Analysis). All CAD files will be managed in accordance with CAD: A Guide to Good Practice (ADS, 2011). As this is primarily relevant to older and backlog projects they will be dealt with on a case by case basis.

6.7 E&A Collections policy

It may not be appropriate, or possible, for some of the data produced by E&A to be transferred to a repository. In these cases files will be stored and managed by E&A for the medium term. The E&A Collections Policy sets out the criteria to be followed for data of this type, although this is partly dependent on the data being continually updated and still required to support our work.

The E&A team will collect and store data within the following categories:

- Guidelines and supporting documents
- Reference and research collection databases and supporting documents
- Data that supports on-going tasks

- Digital data generated for the purposes of education and outreach
- Backlog which meet the archival policy but for which no viable repository currently exists.

Storing this data poses a significant risk to its long-term accessibility because the Archaeological Archives Team lacks the resources for long-term curation. Long-term storage of data should therefore be seen as the exception not the norm. Risk will be partly mitigated by active review of the collections by the Archaeological Archives Team.

6.8 Access and Re-use

Our data is a valuable research resource. We aim to make our research freely available to support 'not-for-profit' research and learning, and encourage the development of understanding of the historic environment for a range of audiences. This policy helps to guide the decisions on how data are created and managed.

Access

- Our digital archives will be accessible through the HEA and the ADS
- Our collections will be promoted through the corporate website.

Certain data files, held as part of the collections policy, will not automatically be accessible through our repositories, so E&A will have to ensure consideration is given to access and reuse procedures.

Signposting

- Relevant project archives will be signposted from the HEA excavation index to where it is available through the ADS website, Heritage Gateway and PastScape
- Relevant projects will also be recorded on OASIS and this data will be available through the HEA excavation index, which is available through the ADS website, Heritage Gateway and PastScape (excavations on monuments only)
- Final publications, Research Reports and other articles should be used to signpost to the location and content of the project archive
- All research will be recorded on our internal archives management system.

7 Revisions to ADAPt

ADAPt policy, procedures and tools will require regular management and update. This will be the responsibility of the Archaeological Archives Team with changes submitted for approval from the Excavation and Analysis Management Team.

8 List of ADAPt documents and tools

Procedures

- Project Procedures – documented in the Procedures Manual
- Data Management Procedures for Informal and Non-Fieldwork Projects
- Archaeological Archives team ADAPt Procedures

Tools

- Procedures Checklist
- Data Transfer Agreement
- Data Management Plan
- Evaluation Decision Tree
- External Acquisition Guidance
- File Formats Standards
- File naming conventions
- Folder structure template
- Image Capture guidelines
- Image flowline
- Metadata forms
- Guidance: Preparing reports for deposit
- Guidance: How to create a PDF/A-1a/b
- Guidance: Databases and Spreadsheets
- Selection and Appraisal Criteria

Glossary of Terms and Acronyms

AAC Archaeological Archives Curator

AAT Archaeological Archives team

ADS Archaeology Data Service

Archive Deposition The transfer of the final archive to the External Repository

Archives Accession The recording and transfer of digital data into the Archaeological Archives team systems, during the project

DMP Data Management Plan

HEA Historic England Archive

Event Within a project there may be a series of events; multiple investigations on the same site, such as an evaluation in March, a Geophysical Survey in June and full excavation the following year. The Archaeological Archives Team have a recording system for this, which gives each event an ID (i.e. 2012a, 2012b, 2013a).

GIS: Geographic Information System

HER Historic Environment Record

E&A Excavation and Analysis

Informal Project Work undertaken which creates archive and requires data management, this might include small pieces of research or tasks supporting our work/ Historic England

MD5: A secure digest algorithm developed by RSA Data Security Inc

NHPCP National Heritage Protection Commissions Programme

NHPP National Heritage Protection Plan

PD Project design

Principal Investigator The equivalent or the project manager for Informal Projects

Project NHPP project

UPD Updated Project Design

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