Dig Digital.

Work Digital. Think Archive. Create Access.

A guide to managing digital data generated from archaeological investigations

Infosheet #2 – CIfA Standards and guidance

CIfA promotes high professional standards and strong ethics in archaeological practice to maximise the benefits that archaeologists bring to society. The CIfA Standards, supported by good practice guidance underpin a *Code of conduct* that outlines the professional ethics and behaviour expected of CIfA accredited-individuals and CIfA-Registered Organisations.

The Standards provide a benchmark for the professional archaeological community to adhere to, but they also help to assure project stakeholders that work is being undertaken consistently and to a measurable and accountable quality standard. In the UK, it is highly likely that authorities will require archaeological work to be carried out to CIfA Standards, so being aware of them and keeping up to date with any changes forms a key part of self-regulation in professional archaeological practice.

At present, there are thirteen Standards covering different aspects of archaeological practice across the historic environment, including one specifically focused on archaeological archives. This infosheet describes how relevant standards relate to digital archives management.

The CIfA Standard for archaeological archives

The <u>CIfA Standard for the creation, compilation, transfer, and deposition of archaeological archives</u> states:

> *All archaeological projects that include the recovery or generation of data and/archaeological materials (finds) will result in a stable, ordered, accessible archive. All archaeologists are responsible for ensuring that the archive is created and compiled to recognised standards, using consistent methods, and is not subject to unnecessary risk of damage or loss. It is the responsibility of all curators of archaeological archives to ensure that archives are stored to recognised standards for long-term preservation and made accessible for consultation.*

The key phrase within this Standard is 'the recovery or generation of data and/archaeological materials (finds) will result in a stable, ordered, accessible archive'. The historic environment is a shared, irreplaceable resource and the delivery of public benefit is at the heart of all archaeological work to ensure that current and future generations can enjoy, continue to learn from and be inspired by it. Archaeological archives represent the project legacy and need to be *stable* and *ordered* as part of their long-term curation, but they must also be *accessible* to allow their public benefit to be realised.

This is where the CIfA guidance and other resources (Toolkits, practice paper, case studies etc) help to support compliance with the Standard. Regardless of whether the public benefit associated with archives is related to the potential for academic or community research, general interest for local communities, future developer-led work or further analysis as innovation drives the development of new techniques and approaches – the archive in its <u>entirety</u> needs to be *stable, ordered* and *accessible.*

That includes the digital archive which should be managed as part of the overall archaeological project archive, and not treated as a separate entity.

Compliance with the Standards

The CIfA Standards identify the overarching expectation of the work being conducted and provide a benchmark to measure performance against. They are deliberately not prescriptive about the methods and approaches used to achieve that benchmark, as it is impossible to foresee every circumstance and prescribe for every potential investigative method without unwittingly inhibiting opportunities for innovation. Compliance is therefore supported through the provision of good practice guidance that outlines the procedures by which outcomes or products can be attained, and against which performance can be monitored. Departures from the guidance should be undertaken with caution, and it is advisable to document the reasons for doing so.

The Standards and guidance apply equally to paid or unpaid archaeologists. For CIfA members and Registered Organisations compliance with the Standards is an obligation of accreditation and/or Registration and failure to do so may be judged to conflict with the regulations through the Institute's professional conduct or complaints procedures.

Other relevant CIfA Standards and guidance to be aware of

The archaeological archiving process begins at the very start of any archaeological project, with the consideration of project-specific selection strategies that should include the completion of data management plans, as outlined in the Toolkit for Selecting Archaeological Archives and this Dig Digital Toolkit. In addition to the CIfA Standard for archaeological archives, relevant information can also be found in several other CIfA Standard and guidance documents relating to archaeological advice, consultancy and project delivery. Some key examples are included below.

Standard and guidance for archaeological advice by historic environment services (CIfA 2014, updated 2020)

Advisors should seek to ensure that the archives of archaeological investigations are deposited in a suitable repository. Advisors should require that the written specification outlines the methodology for the collection and management of all archaeological materials, records and digital data, articulating archive selection and deposition procedures, and that it includes details of the selection strategy and data management plan (Para 10.1).

Standard and guidance for commissioning work or providing consultancy advice on archaeology and the historic environment (CIfA 2014)

Those providing advice to the commissioners of archaeological services and/or procuring archaeological services must ensure that those initiating, sponsoring or commissioning archaeological fieldwork understand their responsibility for resourcing the processing and analysis of the data and finds; appropriate scientific analysis, synthesis and dissemination of the results; and long-term conservation, security of and access to the archive (Para 4.1c, p8).

Standard and guidance for archaeological excavation (CIfA 2014)

The WSI should make suitable provision for archive deposition and include an appropriate retention and disposal policy for digital, photographic and paper archival materials, as well as artefacts and ecofacts (Para 3.2.15).

Digital records created as part of the project should comply with specified data standards. Digital information, paper and photographic records must be stored in a secure and appropriate environment, and be regularly copied or backed up, and copies stored in a separate location (Para 3.3.7).

In updating the project design, archaeologists should be aware of future research and/or resource management needs, together with requirements for the effective short- and long-term curation of the project archive (including retention/disposal considerations) (Para 3.6.2).

The requirements for archive preparation and deposition must be addressed at the outset of the project (Para 3.10.1).

The proposed recipient museum or other repository must be contacted at the project planning stage, and arrangements for deposition of the project archive should be detailed in the WSI and/or project design (Para 3.10.2).

The archive, including all retained artefacts and ecofacts, must be treated and packaged in accordance with the requirements of the recipient museum/repository and national guidelines (Para 3.10.3, p16).

CIfA standards and requirements for digital data

Table1 maps examples of specific requirements taken from CIfA Standards and guidance that inform how digital data should be managed in the archaeological process.

Table 1. Key requirements from CIfA Standards (2014) and how they relate to digital archives

Requirement	Standard and guidance for…	Action for digital data
Project specifications, research designs or similar documents should include a project-specific selection strategy and a data management plan (Para 3.3.1) Project specifications, research designs or similar documents should identify the repository where the archive will be deposited for long-term curation (Para 3.3.2)	the creation, compilation, transfer, and deposition of archaeological archives	The project team should ensure that data generated throughout the project life is managed effectively and results in a stable, ordered, accessible archive. The project team should ensure that an appropriate repository for both the physical and digital archive has been identified during the pre-project planning stages. Create a data management plan during project initiation stages.
Digital material should be fully documented and created according to recognised standards and guidelines as made available by the Archaeology Data Service (Para 3.4.5) The digital archive should conform to recognised standards and guidelines on how data should be structured, preserved, and accessed (Para 3.4.6) Security copies of all digital material should be created and managed as appropriate (Para 3.4.7) Digital archive material should be deposited with a trusted digital repository, where data migration and backup procedures are in place and the integrity of the digital archive is maintained (Para 3.5.5)	the creation, compilation, transfer, and deposition of archaeological archives	The project team should use specified collection methods aligned to good practice guidance where relevant, such as ADS Guides to Good Practice, HE Best practice guides, and FAIR principles. Ensure that data collected is stored appropriately and a secure back up copy is kept. Update and maintain a data management plan during project delivery stages. Ensure that the intended repository for digital data is a Core Trust Seal or equivalent repository.

Requirement	Standard and guidance for…	Action for digital data
The proposed recipient museum or other repository must be contacted at the project planning stage, and arrangements for deposition of the project archive should be detailed in the WSI and/or project design (Para 3.10.2)	archaeological excavation	The project team should ensure that an appropriate repository for the physical and digital archive has been contacted during the pre-project planning stages. For digital archives, ensure the repository is a trusted digital repository Identify details of archive repositories for both physical and digital archives in the pre-project planning documentation and the data management plan.
Advisors [planning archaeologist/ project executive] should seek to ensure that the archives of archaeological investigations are deposited in a suitable repository (Para 1.60)	archaeological advice by historic environment services	The planning archaeologist and/or project executive should ensure that pre-project planning documentation and the data management plan identifies the repository for the digital archive. Ensure the archive repository for digital data is a trusted digital repository, has the appropriate level of accreditation and is recognised by Core Trust Seal or equivalent.
Advisors [planning archaeologist/ project executive] should seek to ensure that the specification for the work makes provision for the deposition of archive material (Para 1.6.2)	archaeological advice by historic environment services	The planning archaeologist or project executive should ensure that pre-project planning documentation articulates appropriate provision for physical and digital archives to be deposited. Require that a completed data management plan is submitted with pre-project planning documentation.
Ensure that those initiating, sponsoring, or commissioning archaeological fieldwork understand their responsibility for resourcing the processing and analysis of the data and finds; appropriate scientific analysis, synthesis, and dissemination of the results; and long-term conservation, security of and access to the archive (Para 4.1c)	Commissioning work or providing consultancy advice on archaeology and the historic environment	Archaeological consultants should ensure that clients, stakeholders and/or commissioners understand the value of archaeological archives and the need to secure the long-term preservation of and access to both physical and digital archives. It must be clear that long-term access to digital data can only be assured through deposition with a trusted digital repository that is recognised by Core Trust Seal or equivalent.

Requirement	Standard and guidance for…	Action for digital data
It is the responsibility of all curators [repository managers/museum curators] of archaeological archives to ensure that archives are stored to recognised standards for long-term preservation and made accessible for consultation (Standard, p3) Archive repositories are responsible for ensuring the continuing stability and accessibility of archives in their care (Para 3.7.2)	the creation, compilation, transfer, and deposition of archaeological archives	The archive repository for digital data should be able to demonstrate they are a trusted digital repository recognised by Core Trust Seal or equivalent. Where repositories would like to retain a copy of digital archives for their own access, this should be seen as in addition to storage at a trusted digital repository. The project team should ensure that information about the location of the digital data archive is signposted in the appropriate place, such as OASIS and within the data management plan.

Stay up to date

The content within the CIfA Standards and guidance is not fixed and may change from time to time as practice develops or as legislation or policy change. This case study highlights how current Standards and guidance relate to digital data management, and what that means for the collection, storage, selection and archiving of the digital elements of archaeological archives. It is important to regularly check that the most up-to-date versions are being followed, especially in the case where templates are being used.

Useful resources

CIfA Standards and guidance: https://www.archaeologists.net/codes/cifa

CIfA Toolkit for Selecting Archaeological Archives: https://www.archaeologists.net/selection-toolkit