

Managing Archaeological Archives
'A Policy and Guidance for the National Trust
Archaeology Section'

Content

1. *Policy*

General policy on NT archaeological archives

2. *Guidance*

2.1 Introduction why we record it

2.2 Types of archives what do we record

2.3 Types of media in the archive and how to curate them how do we record

2.4 Cataloguing & Indexing

2.5 Copyright and Permissions

2.6 Storage where is it located/stored/archived

2.7 Conservation

3. *Bibliography*

4. *Glossary*

5. *Appendix 1: Archive Index and Deposition Form*

Appendix 2: List of recommended archive quality storage product firms

Appendix 3: Mandatory indexing & cataloguing metadata fields

Appendix 4: Project Recording Form

Appendix 5: Archaeology Section Library Database

1. Policy

See separate policy statement document.

2. Guidance

2.1 Introduction

The Archaeology Section is constantly generating an archive through its work recording, managing and understanding the remains of the historic environment on National Trust properties. Archives are therefore kept to help us understand, manage and interpret these remains and assist us in our future work.

The standards set out within this document are based upon existing professional standards produced by organisations such as the Archaeology Data Service, Institute of Field Archaeologists, English Heritage and UKIC.

Throughout this document there are a number of grey boxes, which contain key points from each of the sections. This is intended to highlight mandatory standards for quick reference.

2.2 Types of Archives

An archive is the collection of material generated by an archaeological event. This section seeks to list and explore the types of archaeological projects, events or processes that generate such archives. For the purpose of this document we can broaden the scope of an archive to include not only archaeological projects but also other relevant material including day to day property paper work (management records) and publications, including books and periodicals/journals (library). This is collectively known as the *resource*, which has been generated to understand and manage the remains of the historic environment on Trust properties.

2.2.1 Archaeological Projects & Events

These projects or events can be split into two main categories *invasive* and *non-invasive*.

Invasive: Archaeological Excavations, Evaluations, Field Walking and Watching Briefs

Non-invasive: Historic Landscape Surveys, Building surveys *inc.* Vernacular Building Surveys, Topographical or Measured Surveys, Geophysical Surveys, Desktop Assessments, Environmental Surveys, Site Monitoring, Site Visits and Photographic Surveys *inc.* Aerial Photography.

2.2.2 Regional & Property Files (Management Records)

This includes property and regional filing. Property files will often contain a wealth of information including correspondence, property information, maps, Scheduled Monument and Listed Building information and reports relating to archaeological projects that have been undertaken on individual properties.

Office filing is not included within the scope of this document as its responsibility falls with the Business Administration Unit (BAU), Swindon.

2.2.3 Publications (Library)

Publications include books, journals, periodicals, magazines and any other type of newsletter or subscriptions. It will also include offprints, leaflets, guidebooks and published and unpublished reports.

2.3 Types of Media in the Archive

This section will look at the types of media created within an archive, generated through the projects/events listed in section 2.2

2.3.1 Archaeological Projects & Events

Each type of archaeological project listed in section 2.2.1 will generate an archive. Where as archives are not all the same, they often have common elements and these can include:

2.3.1.1 Reports

Each archaeological project will culminate in the writing of a report. Copies of the individual reports will be held at the relevant property, regional office, central office (SMR), Local County Council (SMR) and at the National Monuments Record Centre (NMRC), the public archive of English Heritage.

Hard Format: The report will comprise mainly of paper (and plastic/metal binding, see section 2.3.1.8 for more information on inks and bindings).

The current practice at the central office is to hold two copies of each report one as a working copy held in its original state for reference in the property filing and one as an archive copy which is held offsite (*Wansdyke Storage Depot, Wiltshire*). This copy will have its bindings removed and will be stored in museum quality 'acid free' plastic polyester sleeves and in suitable storage containers/boxes. There are a variety of firms that make museum quality archiving products, see appendix 2 for a suggested list of companies and contact details.

Digital Format: This will be held on a 3½" floppydisk or compact disk (CD). The basic text of the report should be saved in a Microsoft® Word Format. Acceptable file formats are .doc, .rtf or .txt. All digital material should be backed up on a regular basis and disks should be stored in a magnetic free environment, all digital data must be future proofed.

REPORTS

Paper and digital copies should be sent to:

Central Office (x2)
Regional Office
Property

Paper copies without management recommendations should be sent to:

County Council (SMR)
National Monuments Record (NMR), English Heritage
Royal Commission Ancient Historic Monuments (RCAHMW), Wales
Environment Heritage Service (EHS) Northern Ireland

Digital copies should be in one of the following file formats:

.doc, .rtf or .txt

2.3.1.2 Maps

Maps are generated at different scales to illustrate the location of a property, archaeological project/event, archaeological site or monument within the landscape. The most common types of map used are the modern Ordnance Survey or historical maps such as 'tithe' or 'estate'. Other types include geological and cartographic antiquity maps.

Hard Format: Maps come in various sizes and scales, they are often included within reports and as part of the archive in their own right. In most cases the maps will be in paper format and should be stored horizontally in a map chest preferably in museum quality 'acid free' plastic, polyester sleeves. Maps should not be rolled for any length of time as it can weaken their structure and they become difficult to handle and flatten at a later date.

Digital Format: Digital maps can be created in a number of ways using Geographical Information Systems (GIS), Computer Aided Design (CAD) or Geographical Positioning Systems (GPS). The data should be held on a compact disk (CD) in one of the following recommended file formats; GIS using *MapInfo Professional*® .tab or using *Esri ArcInfo*® .shp; CAD using *AutoCAD*® .dwg (and .dxf, a recognised drawing interchange file) or using *AutoSketch*® .skf. Maps generated in this way are known as 'vector maps'.

For scanned (raster) maps see digital images/digital copy.

All digital material should be backed up on a regular basis, disks should be stored in a magnetic free environment and all digital data must be future proofed.

MAPS

Paper maps:

Should not be rolled for any length of time

Digital copies should be in one of the following file formats:

MapInfo Professional® .tab

Esri ArcInfo® .shp

AutoCAD® .dwg and .dxf

AutoSketch® .skf

2.3.1.3 Plans

Plans are generated through archaeological projects and can range from original excavation or survey drawing to map overlays.

Hard Format: Plans will often be drawn on drafting film (Permatrace) or tracing paper, with copies made on to paper or dyeline. They should be kept flat, either laid horizontally in a map chest or hung vertically in a plan chest, though the latter is not preferable as it can put a stain on the bindings and can become detached. Where possible plans should be stored in museum quality 'acid free' plastic, polyester sleeves. Plans should not be rolled for any length of time as it can weaken their structure and they become difficult to handle and flatten at a later date.

Digital Format: Plans of all types can be created digitally using CAD. They are either generated from survey software and down loaded into CAD or digitised using the CAD software itself. Plans generated in this way are known as 'vector plans'.

For scanned (raster) plans see digital images/digital copy.

The data should be held on a compact disk (CD) in a suitable file format. Most CAD systems will allow you to save original drawing files as .dwg or .skf and where possible should be backed up as .dxf (drawing interchange file). All digital material should be backed up on a regular basis, disks should be stored in a magnetic free environment and all digital data must be future proofed.

PLANS

Paper plans:

Should not be rolled for any length of time

Digital copies should be in one of the following file formats:

AutoCAD® .dwg and .dxf

AutoSketch® .skf

2.3.1.4 Photographs

Photographs are generated from a number of archaeological projects or events. They can be taken in different formats and printed in colour or black and white at a variety of sizes.

Hard Format: Black and white and colour prints should be carefully looked after as the life expectancy for a standard print is around 10-15 years (before the print and colours start deteriorating). Photographic papers with a fibre base are preferred over resin-coated papers for the production of archival prints. It is recommended that all photographic media be held at a suitable temperature/humidity (see section 2.7), away from dirt/dust and kept out of unnecessary light. Therefore it is recommended that prints be held in museum quality 'acid free' plastic and acid free boxes, with labels on the outside to note the content. All this should reduce the amount of handling, minimise the risk of damage and slow the deterioration of the print.

Prints can be copied or reprinted from their negatives as a way of preserving the archive. There are British standards (BS5699) for the processing of photographic prints and where possible these standards should be followed.⁽¹⁾

Digital Format: Digital photographs generated from a digital camera or 'born digital' can be taken as .jpeg or .tiff files. Images taken in .tiff format will have a better colour depth than those taken as .jpeg. The quality of an image can also be altered through changing its resolution (the amount of detail or pixels captured). It is possible to change the resolution of an image on the camera itself, but the higher the resolution the smaller amount of images you will be able to store on a memory card (see section on digital images below).

It is important that when photographs are down loaded to a computer that the file names are changed in order to allow easy recovery of individual images. Thought should be given to the subject and location of the image when changing the name.

All digital data should be stored on a CD and backed up on a regular basis, disks should be stored in a magnetic free environment and all digital data must be future proofed.

For further information on digital images see below.

PHOTOGRAPHS

Prints:

Should be kept out of daylight

Digital photographs should be in one of the following file formats:

.jpeg or .tiff

Original digital photographs should be:

- Backed up
- File names should be changed to a suitable classification

(1) Reference: UKIC United Kingdom Institute for Conservation (for historic and artistic works) see bibliography

Digital Images or Digital Copy: this refers to images that are generated from the scanning/digitisation of an original source. It can be a scan of anything, for example a photograph, slide, postcard, negative or map. The final file format will be a raster 'image file'.

It is widely recommended that the best archive quality file type is uncompressed TIFF (Tagged Image File Format). This is known as a 'lossless compression' file type and will hold more information from the original scan than any other file type (for example the spectrum of colours used). The down side of this is that the 'file sizes' will be very large and therefore only recommend for the archive storage of digital data.

The most commonly used image file type is that of JPEG (Joint Photographic Experts Group), they hold less original data but the file size is a lot smaller and easier to store. These files are known as 'lossy compression'. The difference between a TIFF and JPEG would not be readily obvious to the human eye. It is important that you chose jpeg or tiff depending on what you are going to be using the image for.

When scanning an image it is recommended that the resolution be set to a minimum of 200-300 dpi (dots per inch) for a 6x4 photographic print and 1000-1200 dpi for a mounted slide, this should keep file sizes at around 10MB and ensure all scans are of a good quality. It may be necessary to scan images at a higher resolution if they are to be used for publication. Images scanned for the internet will need to be scanned at 72 dpi and saved as .gif files to allow for fast download times of web pages.

Good practice states that a copy or back up of the original scan/file must be made before the file is edited, for example before colour balancing or re-touching. This will allow anyone to return to the original should they need to. It is also recommended that after the scanning has taken place a certain amount of metadata (data about data) be recorded. (see appendix 3, table of mandatory metadata fields) ⁽²⁾

All digital data should be stored on a CD and backed up on a regular basis, disks should be stored in a magnetic free environment and all digital data must be future proofed.

DIGITAL IMAGES

Digital images or digital copies should be in one of the following file formats:

- .tiff for archival images
- .jpeg for general everyday use
- .gif for internet or intranet pages

Original digital images should be:

- Backed up
- File names should be changed to a suitable classification

(2) Reference: ADS guides to good practice, see bibliography

2.3.1.5 Negatives

Negatives usually relate to the photographic prints detailed above.

Hard Format: Negatives from 35mm roll films should always be kept in a stable environment and it is recommended that each strip of 3-6 frames be kept separately as not to allow deterioration spreading from one strip to another. Therefore it is recommended that negatives be held in museum quality 'acid free' plastic polyester sleeves and acid free boxes, which will help to reduce exposure to light. The same applies to negatives from larger format cameras and glass (lantern) slides. It is important that glass plates are stored vertically in individual sleeves and packed out to minimise movement.

Digital Format: see above re: digital images

NEGATIVES

- Should be kept separately
- Should be kept out of daylight

2.3.1.6 Positives (Mounted Slides)

As with photographs, 35mm mounted slides can be taken in Colour or Black and White

Hard Format: 35mm mounted slides are just as fragile as photographs and the life expectancy is around 20 years before they start to decay. As with photographs it is recommended that they be held at a suitable temperature/humidity (see section 2.7), away from dirt/dust and kept out of unnecessary light. Therefore it is recommended that slides are held separately in museum quality 'acid free' plastic polyester sleeves to prevent deterioration spreading and minimise the risk of damage during storage.

Digital Format: see above re: digital images

POSITIVES (MOUNTED SLIDES)

- Should be kept separately
- Should be kept out of daylight

2.3.1.7 Microfilm

Microfilm copies of archaeological archives should be prepared in accordance with IFA guidelines (Handley, M. 1999). This will ensure that microfilming is carried out to preservation standards and that consistent classification, titling and layout standards are used.

2.3.1.8 Original References & Other Documentary Material

This section mainly refers to the wealth of support material generated by many of the projects and events described in section 2.2.1. These documents can include primary and secondary sources such as research, estate papers, context sheets, excavation diaries, survey notes etc. The documents will include hand written, printed and photocopied paper records.

The majority of these documents will be paper based and should be archived in a suitable way that represents the type of individual item. Paper should not be folded as this weakens the structure and folds will rip over time.

Modern printer and copier papers have a high acid content and are subject to fast degradation, ideally archival acid free paper should be used but this is usually judged impractical due to the cost, it is therefore imperative that the lifespan of the paper archive is maximised through other means.

Inks; Permanent, light fast ink should be used in pens for archive documents but for general use black ballpoint pens are acceptable. Colour inks should not be used as they have a far shorter lifespan. Laser jet printers and photocopiers produce the image using a dry toner bonded to the surface by pressure and heat. This means that the inks do not infuse with the paper and are subject to flaking or coming of in plastic folders. To reduce this happening good quality resin-based carbon black toners should be used and machinery should be serviced regularly or if the documents are of importance they should be held in 'acid free' plastic polyester sleeves.

Binding; Spiral bound notebooks, steel paper clips and staples should be avoided as these bindings can corrode and pages can become detached. Hardback notebooks with sewn pages provide a longer lasting journal in which to record a project. Adhesive tapes, punch hole supports and sellotape should not be applied to paper records unless designated as archival materials, they may lose adhesion or leave a sticky residue which attracts dirt and cause pages to rip. To bind records together cotton and polyester tags should be used.^(3/4)

ORIGINAL REFERENCE MATERIAL

- Paper should not be folded
- Do not use coloured inks
- Avoid paperclips, staples and sellotape

(3) Reference: Jones, C, *English Heritage, Conserving Documentary and Digital Media*

(4) Reference: Ferguson, L. Murray, D. *Archaeological documentary archives: IFA paper No. 1*

2.3.1.9 Other Digital Material

Magnetic media such as sound recordings and videos cassette tapes should be stored in a magnetic free environment to ensure they survive for the longest possible time. All tapes should be fully rewound before storage and re-tensioned at 12 month intervals by performing a full forward and rewind cycle. The write-protect switch should be set immediately after writing and the cartridges should be stored vertically in their boxes and labelled.

Digital sound recordings (.wav and .mp3 files) and digital video (.avi and .mpeg) should be stored on suitable CDs or DVDs (Digital Versatile Disk). Other forms of storage media include CompactFlash and SmartMedia cards often used for Psion's and digital cameras. These are not suitable for long term storage and data should be transferred to other media at the earliest possible opportunity.

Other digital files such as PowerPoint (.ppt and .pps files), spreadsheets (.xls and .dbf files) and databases (.mdb and .xml files) should be stored in a secure manner in relevant file formats. All digital data should be backed up on a regular basis, CDs should be stored in a magnetic free environment and all digital data must be future proofed.

Databases are increasingly being used such as the National Trust's Sites and Monuments Record, a lot of documents have been written on the SMR, see bibliography and section 2.4.

Geophysical data from magnetometers, resistivity and radar, no common file format has been derived for this type of data but certain pieces of software which can manipulate the raw data are starting to become more widely available. The data should be managed in a similar way to other digital data and stored appropriately.

2.3.1.10 Artefacts

Artefacts are often generated through invasive projects/events (Section 2.2.1) and are outside the scope of this paper. A separate paper is being researched and written on the future of archaeological artefacts from National Trust properties.

2.3.2 Regional & Property Files (Management Records)

Correspondence files, property files and office files comprise almost entirely of paper and cardboard folders. These files are often held in filing cabinets where they are easily accessible or when closed stored in an offsite facility where they can be recalled if required. It is important to remember that these files can often contain a variety of other material including, maps, reports and sources or references. Therefore each file must be given due care as it may be referred to at anytime.

2.3.3 Publications (Library)

Books, journals and periodicals are mainly paper based but should be kept on bookshelves and should be catalogued and referenced to allow for easy retrieval. Those kept on view should be regularly conserved; dusted and cleaned with minor repair work carried out to prolong the life of the resource. A library database has been compiled at the central office for the cataloguing of all archaeological publications. This database can be used in regions. (see section 2.4.3)

2.4 Cataloguing and Indexing

The cataloguing and indexing of archives is essential to allow for easy retrieval and research, and to conform to good standards of archaeological practice (IFA Standards, see bibliography).

The principles and practices of cataloguing allow you to know and understand what is in your archive and therefore enable anyone to interact with the resource allowing for 'resource discovery'.

2.4.1 Archaeological Projects & Events

It is now standard practice (mandatory) to complete a general 'project recording form' (See appendix 4) at the start of a project or event, such as those described in section 2.2.1 and for external contractors an 'archives deposition form' at the end of the project (See appendix 1).

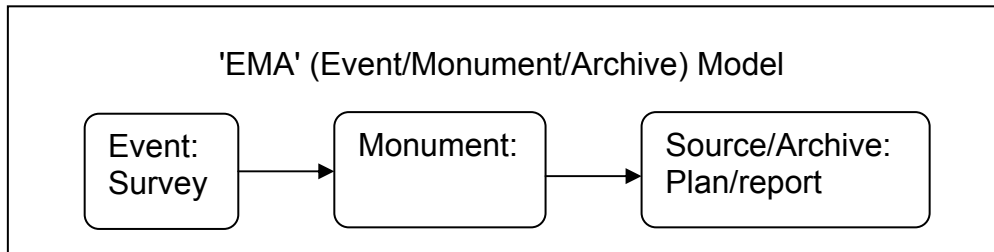
2.4.1.1 The following section is a description of the process of dealing with an archive from a project listed in Section 2.2.1. This section is based on archives deposited at the central office. Where as this is only a case in point, the principle of good record keeping and indexing applies across the board.

- On the arrival of an archive the first thing to check is that the archive matches what is written on the archive deposition form.
- The archive is then catalogued and indexed on the 'Property Survey Assessment Tables'; this involves recording the report (*title, author, date and level/type of survey*), SMR details (*SMR numbers, backlog, monitoring dates, SAM, LB etc*), listing the content of the archive (*referencing back to the archives deposition form*) and its storage location (See section 2.6 for further details). Remembering to list any significant reference numbers.
- The archive is then filed away in accordance with the terms set out in section 2.3 in the most appropriate place.
- The reports are added to the archaeology library database to allow for easy retrieval.

No matter where an archive is stored or how it is stored it is important that it is catalogued and indexed using a suitable and relevant system to enable items to be recalled. Thought should be given to where it is going to be located especially if an archive is to be split up. To help in the process of cataloguing and indexing a list of mandatory metadata fields is attached to this document. (see appendix 3).

2.4.1.2 The SMR can help in the cataloguing and indexing of archives. The SMR as mentioned in section 2.3.1.9 digitally records each individual event/project, source and monument/site which are identified within Historic Landscape Surveys and other relevant surveys. The SMR is based on the EMA model (events, monuments and archives) and allows for an integrated resource where each individual monument has its own supporting information. It is the bases upon which all archaeological activities take place.

Therefore the SMR can be used to catalogue each individual item in the archive and will automatically allocate a unique indexing reference number to each item. This allows archives to be recorded in a systematic way and enables interrogation of the resource.



(For more in depth information on the SMR see the guidance notes listed in the bibliography).

2.4.2 Regional & Property Files (Management Records)

Each file that is created (either on a specific subject or property correspondence) should be no more than an inch thick. When a file reaches this stage it should be closed and a new one opened. Files should remain on site for a period of one year after they are closed and then stored in an offsite storage facility such as Wansdyke. All material that is sent to Wansdyke is catalogued and recorded on the storage firms database, this should allow for easy retrieval.

2.4.3 Publications (Library)

Publications including published and unpublished report, books, journals, periodicals, magazines, offprints, leaflets, guidebooks any other types of newsletter or subscriptions are recorded on the Archaeology Section Library (See Appendix 5) There are a variety of fields to fill in including the Title, Author, Date, Publisher, ISBN and Content. A Unique Identification Number (UID) will be generated by the database and this is recorded inside the front cover of each publication. All publications are then filed (See section 2.3.3 & 2.6). At present the library database only holds information on publications held at Cirencester but there is scope to include material from Regional Offices and properties. The database could be housed on the Trust's Intranet giving wider access to a resource currently only available to Cirencester staff.

One of the most important things is to keep on top of any backlog and prevent indexing systems from going out of date or becoming too complicated.

CATALOGUING & INDEXING

- You must catalogue the archive
- Indexing systems and Metadata are key
- Project Recording Form
- Archives Index Form

2.5 Copyright and Permissions

It is important that you take copyright into account with each type of item in the archive, both when creating an archive and when allowing access to the archive, i.e. reproducing it.

To this end it is important that the metadata fields (appendix 3) are recorded when indexing an archive especially the author (internal and external). It is necessary to do this to fulfil the Trust's intellectual Property (IP) obligations and to protect our own IP against plagiarism. ⁽⁵⁾

Central office procedure for the use or reproduction of the archive to an external audience (clearance rights) is to; add the standard copyright strapline (see below) to any document; to administer a 'holders declaration'; and for commercial use an 'agreement form'.

This copyright strapline has been approved by the Trust's Legal Department.

"This data is for your personal and non-commercial use. You may not modify, copy, distribute, transmit, display, reproduce, publish, license, create derivative works from, transfer, lease, assign or sell part or all of this data without the express permission of The National Trust.

Possession of this information does not mean right of access to the sites, separate permission from The National Trust will need to be sought.

You warrant to The National Trust that you will not use this data for any purpose that is unlawful or prohibited by these terms. Although every effort is made to maintain the accuracy of this data, it is subject to change and updating at the discretion of The National Trust and may include inaccuracies or typographical errors. The National Trust makes no representation about the suitability reliability and accuracy of the data.

In no event shall The National Trust be liable for any direct, indirect, special, consequential, or any damages whatsoever arising out of use of this data. The data provided is the property of The National Trust and all rights are reserved."

COPYRIGHT

- This procedure must be followed
- Ensure copyright of material from other sources is recognised

(5) Reference: National Trust, Intellectual Property and Data Protection Review, June 2002

2.6 Storage and Disposal

2.6.1 Storage

Storage for specific items is referred to earlier in this document. This section refers to more general storage on a wider scale.

Storage for hardcopy material exists at different levels both onsite and offsite. Onsite storage includes filing cabinets, shelves and map chests (i.e. those mentioned in section 2.3), this will often be the case at the Central Office, Regional Offices and Properties. Offsite storage includes archiving firms such as those already mentioned (Wansdyke), which can deal with large volumes of paperwork. Artefacts are often stored as loan collections at local museums or stores and historic archives are stored at relevant Records Offices, all in suitable environmental conditions.

Digital material has more specific storage requirements. All digital data either on CD, DVD, cassette tape or server networks (backed up on DLT tapes) should be backed up regularly and stored in magnetic free, environmentally controlled conditions. It is recommended that CDs should always be kept out of strong light, in a cool dry environment.

Guidelines are starting to emerge on the use of writable CDs as a long term storage medium. CD-R (CD Recordable) are preferred as opposed to CD-RW (CD Rewritable), the reason for this being that rewritable CDs are more prone to corruption if repeatedly used, it follows that excessive use of any disk will reduce its working life especially the boot sector which is accessed every time the disk is started.

No independent authority has yet published a definitive study of which type or brand of CD-R is most reliable and stable. It is generally believed that where a gold dye layer is used, as opposed to blue or green, this is likely to be more stable over time, the dye colour can be seen on the data recording side of the disk.

Labelling of CDs can be a problem, it is recommended that you never apply any type of adhesive label and never write on the disc especially with a ballpoint pen as it can damage the delicate data matrix by focussed pressure. Solvent pens are also considered potentially damaging as solvent could migrate into the dye layer causing data to be lost, ideally the storage container should be labelled and if necessary the transparent core of the disc.

Scratches and finger prints on the read side will be enough to ruin the data held on the disk. You should always be careful when cleaning a disk as the removal of dirt can often lead to more scratches. It is recommended that you use a lens cleaner and gently wipe from the centre hub towards the outside edge, not in a circular motion. ⁽⁶⁾

(6) Reference: Evans, M, *English Heritage, Digital photographic Images and their Management*

Disaster management plan; Every potential cause of disaster should be considered so that staff can take the appropriate action instantly. Staff response to a disaster must be well co-ordinated and correct, so that further damage is prevented. You should produce a manual, which gives clear guidance and information in the event of a disaster, and all staff should become familiar with it. The National Trust Emergency Planning section are in the process of producing and updating a generic disaster management plan which can be adapted for use on a property or at a Trust office, this should be available by April 2004.

It is physically impossible to have a complete copy made of an archive but by following various procedures the extent of a disaster can be reduced by:

- Not storing material on the floor in case of flooding
- Keeping computer backup disks and photographic negatives off site
- Copying as much material as possible, keeping the copy on site and placing the original in a secure location
- Being security-conscious and taking appropriate measures to safeguard premises
- Ensuring that the archive is stored in filing cabinets or boxes and is not left exposed
- Following the appropriate fire regulations for site buildings & having in place the appropriate fire extinguishers

External standards for disaster planning are worth taking into account. The Museums & Galleries Commission (1992, 55) have produced standards for museums but some of the following point are equally relevant to archaeological archives:

- Details of specialists to contact, including conservators, archivists and curators, should be drawn up
- Basic equipment should be readily available (e.g. blotting paper and cloths)
- A list of emergency contact telephone numbers should be compiled ⁽⁷⁾

2.6.2 Disposal

As a rule of thumb the National Trust aims to keep everything from the archive but disposal of items is possible but would have to be done on a case by case basis. Disposal may be by means of throwing away but thought must be given to deposition with a local records office, it also important to think about digitising the item before disposal.

STORAGE & DISPOSAL

All archaeological archives are irreplaceable unless proven otherwise, retention should be considered along side the potential loss of information and the reputation of the National Trust as a conservation organisation and museum. All archaeological archives should stored in a suitable location and digitised.

(7) Reference: Ferguson, L. Murray, D. *Archaeological documentary archives: IFA paper No. 1*

2.7 Conservation

It is not within the remit of this guidance note to comment on the specifics of conservation, apart from to recommend some good practices. If archives are dealt with as suggested in the above sections then this will go along way to preserve the archive. Below is a table of recommended relative humidity and temperature requirements of archive media and comes from forthcoming UKIC Guidelines. More specialist advice can be sought from the Conservators Section.

Material	Short-term		Long-Term	
	Temperature	Relative Humidity	Temperature	Relative Humidity
Documentary				
Paper	15-20°C	45-60%	13-16°C	40-60%
Drawing Film	15-20°C	45-60%	13-16°C	40-60%
Photographic				
B/W Negative Film	<25°C	20-50%	<2°C	20-50%
Colour Negative Film	<25°C	20-50%	<2°C	20-30%
Colour Reversal Film	<25°C	20-50%	<2°C	20-30%
Glass plates	<25°C	20-50%	<18°C	30-40%
B/W Prints	<25°C	20-50%	<18°C	30-50%
Colour Prints	<25°C	20-50%	<2°C	30-40%
X-Rays	<25°C	20-50%	<21°C	20-50%
Video	8-23°C	15-50%	8-17°C	15-30%
Mixed Collections	8-23°C	20-50%	N/A	N/A
Microfilm				
Masters	<25°C	<60%	15-25°C	20-40%
Diazos	<25°C	<60%	15-25°C	20-40%
Digital				
Flexible Magnetic Disks	10-51.5°C	20-80%	18-22°C	35-45%
Digital Audio Tape (DAT)	5-45°C	20-80%	5-32°C	20-60%
Digital Linear Tape (DLT)	16-32°C	20-80%	18-26°C	40-60%
Other Magnetic Tape Cartridges	10-45°C	20-80%	18-22°C	35-45%
CR-ROM/R/RW	10-50°C	10-80%	18-22°C	35-45%
DVD-ROM/R /RAM/RW/+RW	10-50°C	10-80%	18-22°C	35-45%
Mixed Collections	16-32°C	20-80%	18-22°C	35-45%

General requirements; all materials should be stored in an environment, which provides protection from direct sunlight and ultra-violet light, and is free from chemical or particulate atmospheric pollutants. The environment should not be subject to rapid fluctuations in either temperature or humidity.

3. Bibliography

- Bewley, R. Donaghue, D. Gaffney, V. van Leusen, M. Wise, A. 1999. *Archiving Aerial Photography and Remote Sensing Data*, Archaeology Data Service
- Brown, A. 2000. *Digital Archiving Strategy*, English Heritage Centre for Archaeology
- DCMS, 2002. *The Historic Environment: A Force for Our Future*, Department of Culture Media and Sport
- English Heritage, 1991. *Management of Archaeological Projects*
- English Heritage, 2001. *Power of Place: the future of the historic environment*
- Ferguson, L. Murray, D. *Archaeological documentary archives: IFA paper No. 1*
- Grout, C. Purdy, P. Rymer, J. Youngs, K. Williams, J. Lock, A. Brickley, D. 2000. *Creating Digital Resources for the Visual Arts: Standards and Good Practice*, Visual Arts Data Service
- Handley, M. 1999. *Microfilming archaeological archives: IFA Paper No. 2*
- Jones, C. *Finds and Conservation Training package, Conserving Documentary and Digital Media*, English Heritage. Unpublished Document.
- Milln, J. 1998. *Archaeological Artefacts and Archives, Report and Recommendations of the Artefact & Archives Review Working Group*, National Trust, Unpublished Document
- Morrison, A. Popham, M. Wikander, K. 2000. *Creating and Documenting Electronic Texts*, Oxford Text Archive
- Perrin, K. 2002. *Archaeological Archives: Documentation, Access and Deposition. A Way Forward*, English Heritage
- re:source. 2001. *Developing the 21st Century Archive: An Action plan for United Kingdom Archives*, The Council for Museums Archives and Libraries
- re:source. 2001. *Archives in the Regions: An overview of the English Regional Archives Strategies*, The Council for Museums Archives and Libraries, Public Record Office, Society of Archivists and the National Council on Archives
- re:source. 2002. *The Conservation of Archives and Ephemera & The Conservation of Photographic Materials*, A selection of technical papers from the re:source web site. <http://www.resource.gov.uk>
- Richards, J. Robinson, D. 2001. *Digital Archives from Excavation and Fieldwork: A Guide to Good Practice*, Archaeology Data Service

Siddall, J. 2000. *Sites and Monument Record Guidance Note 1 – List of Mandatory Fields*, National Trust, Unpublished Document

Siddall, J. 2000. *Sites and Monument Record Guidance Note 2 – EMA Model*, National Trust, Unpublished Document

Siddall, J. 2000. *Sites and Monument Record Guidance Note 3 – Project Recording Guidance*, National Trust, Unpublished Document

Siddall, J. 2000. *Sites and Monument Record Guidance Note 4 – Survey Archives*, National Trust, Unpublished Document

Siddall, J. 2000. *Sites and Monument Record Guidance Note 5 – Field Proforma*, National Trust, Unpublished Document

Siddall, J. 2000. *Sites and Monument Record Guidance Note 6 – Field Proforma Description*, National Trust, Unpublished Document

Swain, H. 1998. *A Survey of Archaeological Archives in England: A report prepared for English Heritage and the Museums & Galleries Commission*, English Heritage and the Museums & Galleries Commission

Townsend, S. Chappell, C. Struijve, O. 1999. *Digitising History: A Guide to Creating Digital Resources from Historical Documents*, History Data Service

UKIC Guidelines, United Kingdom Institute for Conservation of historic and artistic works. Unpublished Documents & Internet Website

Woodside, R. 2000. *Historic Landscape Survey Guidelines*, National Trust

4. Glossary

GIF

Graphics Interchange Format. Digital image file format with a limited number of colours available, which keeps the file size down. Used for Internet or Intranet web pages.

Future proofing

The upgrading of digital files through evolving pieces of software technology. Ensuring that files do not become unreadable and obsolete, therefore protecting the digital content.

JPEG

Joint Photographic Experts Group. Digital file format designed for image compression and every day use. Although it compresses a file to a small size it uses lossy compression.

Lossless Compression

These compression formats (TIFF files) retain all or most of the image data.

Lossy Compression

These compression formats (JPEG is the most common) compress the file by removing the image details - usually the details that the human eyes cannot perceive very well.

Metadata

Electronic information about electronic information or data about data. The additional information used to describe something for a particular purpose. Often used for the cataloguing of archive material. This will include who did it, how it was done and when it was done.

Raster

A way of displaying spatial information as coloured grid cells or pixels as in a TV screen. Common file formats attributed to this are TIFF, JPEG, BMP.

TIFF

Tagged Interchangeable File Format this is a widely used digital image file format. This file format is recommended for master copies and archival purposes. This form of file format uses Lossless compression and so contains most or all of the image detail.

Vector

A geometric way of displaying spatial information as a series of lines, points and polygons. Each has properties attached to it which include thickness, line colour, style etc. These can be considered as instructions for software to draw the elements to form an image.

Appendix 1

**The National Trust
 Archive Index and Deposition Form**

1. Title of Project					
2. Project Short Description					
.....					
.....					
.....					
.....					
.....					
.....					
.....					
.....					
.....					
3. Project					
Excavation <input type="checkbox"/> Watching Brief <input type="checkbox"/> Survey <input type="checkbox"/>					
Other (please specify)					
4. Location					
NT Property, NT Region					
NGR					
County					
District					
5. Creators					
Name of Originating Organisation/Person.....					
Address of Originating Organisation/.....					
.....					
Project Manager.....					
6. Dates					
Project Start					
Project End					
Archive Deposition Date					
7. Archive Contents					
Item	Description	Format	Media	Scale	Copyright and Source

Appendix 2

List of recommended archive quality storage product firms.

DW VIEWPACKS LTD
Unit 7/8 Peverel Drive
Granby
Milton Keynes
MK1 1NL

Tel: 01908 642323
(Specialise in photographic media storage)

SECOL
Howlett Way
Thetford
Norfolk
IP24 1HZ

Tel: 01842 752341
(Specialise in museum quality 'acid free' polyester sleeves and storage boxes)

G. RYDER & CO LTD
Denbigh Road
Bletchley
Milton Keynes
MK1 1DG

Tel: 01908 375524
(Specialise in handmade archive storage products)

Appendix 3

Mandatory Indexing & Cataloguing Metadata fields.

File Name

This is the name that the file will be called on either the digital or the paper copy. For digital data the file extension (.jpg, .tiff) should be retained as it will allow others to know what sort of file it is.

Digital File Size

The size of the file can be obtained from looking at the file in Windows Explorer. File sizes should be expressed in Megabytes and Kilobytes as appropriate. (e.g. 500KB, 1 MB, 2 MB, 2.5 MB etc)

Title

This allows the user to write a longer descriptive name other than the file name.

Short Description

This allows for longer descriptions including key words and subjects. It also allows you to describe where the file or information has been derived from (e.g. slide, photograph, book etc).

Purpose

The purpose for which the object has been created, for example digital images can be digitised for numerous reasons for example to be published on the web.

Created By

The creator's name in full.

Create Date

The date it was created.

Copyright & Ownership

The copyright ownership should be noted for future reference, this will also include permissions for reproduction.

Location

The storage location of a hardcopy or digital object.

Appendix 4

**The National Trust
Project Recording Form**

NT Region: **NGR:**

NT Property:

Project Name:

Activity Type:

Measured Survey ~ Landscape Survey ~ Management ~ Excavation ~
Watching Brief ~ Vernacular Buildings Survey ~ Specialist ~

Date Started: **Originator:**

.....

Reason for Project:

.....
.....
.....

Description:

.....
.....
.....

Inputted onto NTSMR: ~ **NTSMR Site Activity ID No:**

To be filled in at end of Project

Date Finished:

Location of Archive Deposit:

.....

Contents of Archive:

.....
.....

Finds/Archive Arrangements:

.....
.....

Report Title:

.....
.....

Distributed to:

Cirencester (2 copies) ~ Digital Copy to Cirencester ~ Regional Office ~

Property Manager ~ NMR ~ Property Staff ~

Other:.....

Appendix 5

Archaeology Section Library Database

