

Catholic Archives Society Publications

Archive Advice Leaflet Number 6

Conservation and Preservation

This is an update of a leaflet originally published by Lorna Lee in 2006

Introduction

This leaflet offers an introduction to the care of archival material by employing the principles of preservation and conservation. Preservation measures are steps taken to ensure the best possible long-term survival of archives by slowing deterioration processes and providing protection against damage. Conservation is the application of remedial treatment to stabilise and repair archives through physical intervention.

Collection Care Planning

It is best practice to have a written policy to set out how the organisation identifies and deals with preservation issues. This will cover subjects such as the preservation aims of the organisation, who is responsible for collection care and how preservation is funded. When considering how best to plan the long-term preservation of a collection it is important to understand what condition the collection is in and what factors present a risk of further damage unless addressed.

A condition survey is an excellent way to build up a picture of the preservation status of the collection but requires careful planning to ensure the right information is collected as efficiently as possible. If the time required for a dedicated survey is not available, it is helpful to record information on condition and inadequate packaging as a matter of course when using the archives or carrying out collection management activities.

A faster survey method is to use a sampling system. A Conservator will be able to advise on the type of survey and design one that is appropriate for your collection. Once complete, the survey will provide a statistical snapshot of the collection and provide an excellent basis for planning collection care strategies.

Identifying risks to the collection will allow the prioritisation of preservation measures and while the nature of these risks will differ between organisations they could include:

- Inadequate listing or cataloguing making it harder to identify theft
- Insufficient security or fire protection cover
- Unstable or damaging environmental conditions
- Buildings issues such as presence of water pipes, radiators and windows
- Archives housed in poor quality enclosures
- Lack of an effective disaster response plan (for more information on disaster response planning, see Advice Leaflet 12: Basic Disaster Planning
<https://castrial.files.wordpress.com/2016/11/advice12disasterplanning.pdf>)

Preservation

Preservation encompasses all steps taken to extend the lifespan of archives and mitigate risks, with the two main approaches being to ensure the environmental conditions within storage areas are appropriate and that packaging is supportive and chemically non-damaging to the material it houses.

Two British Standards govern the storage and preservation of archive collections: BS EN 16893:2018 Conservation of Cultural Heritage and BS 4971:2017 Conservation and Care of Archive and Library Collections. They contain wide-ranging information on the specifications for buildings and environment for safe storage of collections.

Environmental Monitoring

Maintaining appropriate environmental conditions is fundamental to the preservation of archive collections. Damp and high temperatures will lead to chemical damage, rapid mould growth and insect infestation causing irreversible damage while extreme dry conditions will cause some material to become brittle and distort. It is important to monitor conditions in storage areas even if there is limited control over the temperature and relative humidity (RH) because this will provide an early warning system for the presence of mould or insects and it will also indicate issues with the fabric of the building or heating systems.

Monitoring can be carried out in many different ways, the objective being to keep a record of the changing temperature and RH across time. A variety of hand-held or wall mounted measuring devices are available both digital and analogue and need not be costly but remember that most require periodic recalibration. High-end computer based systems are available with wireless sensors in storage areas that transmit data to software that records a constant graph of conditions but there are simpler options. Recording hygrothermographs use paper charts on a rotating drum and produce daily, weekly or monthly graphs. Regardless of the equipment, it is important to build up a record of the changing conditions within storage areas over time.

With a knowledge of the environmental conditions often comes the need to alter them. The ideal conditions for most mixed archival collections are close to 50% RH and a temperature of between 13 and 20 degrees centigrade with minimal fluctuations. Specialist materials will have different requirements such as photographic or motion picture film. Even without air conditioning systems conditions can be managed, for instance with dehumidifiers.

Packaging and Storage

Appropriate packaging will physically protect archives by providing support and a barrier during handling but also provide a degree of chemical and biological protection. Acid-free archive boxes will block light and dust, make the contents less vulnerable to pest activity and buffer against rapid fluctuations in humidity.

Paper and parchment documents should ideally be wrapped in archive quality paper or placed in archival folders before going into a suitable acid-free box. If items are fragile and cannot be handled without risk of causing further damage this should be noted on the packaging.

Large format maps and plans are best stored flat in folders but this is not always possible. Rolling around a rigid core with a diameter appropriate to the flexibility of the item provides protection against crushing or bending. The rolled plan should then be covered in archival quality wrapping paper or textile, if the rigid core is not of archival quality a barrier will need to be wrapped around the core.

Books on open shelving should be stored upright where possible, supported by similarly sized books either side to keep the books vertical. Books that are too large to go upright can be shelved spine downwards or horizontally.

Seals require padded bags or boxes made to measure.

Rusty paperclips and pins need to be removed and if necessary can be replaced with brass paperclips.

Handling and Display

Archives must always be handled carefully with clean, dry hands. Gloves are normally only necessary for photographic material in which case disposable nitrile gloves are to be worn, not cotton gloves which in many cases represent more of a hazard to archives than bare hands.

Researchers must be invigilated while using archives and measures taken to safeguard against theft, loss or damage. Consultation areas should be equipped with a selection of foam or cushioned book supports and books should always be placed on these supports to reduce stress on the book structure and to limit the opening angle of tight bindings.

Display of original archives represents a significant risk of permanent damage so where possible use high quality copies, this is especially important for photographs. All display periods must be limited based on the vulnerability of the archives and the quality of the display conditions. Environmental conditions need to be the same as ideal storage conditions and carefully monitored including light levels which should not exceed 50 lux for most archives.

Conservation

Remedial conservation work needs to be carefully considered as any treatment risks permanently altering the archive and may have unintended consequences. Professional Conservators should always be employed to advise on and carry out any remedial work. Conservators adhere to a code of ethics designed to protect the integrity of material of cultural and historical significance. This includes:

- Ensuring any treatment applied and materials used are not going to be damaging
- Leaving the extent and nature of the repairs evident
- Ensure any repairs can be safely removed if necessary

In many cases, simple, minimally invasive measures could be undertaken to stabilise archives against further deterioration. These measures fall short of what might be included in full conservation treatment but can buy time and even avoid the need for expensive conservation treatment later on. One example would be the repair of small tears with thin tissue before they become significant tears risking serious damage and loss to the item.

Conclusion

Collections care can seem like a daunting prospect particularly for smaller organisations but they key fundamentals are to understand the vulnerabilities or risks to your collections and then plan to mitigate them. Often the most effective steps towards preserving collections can be achieved with minimal financial outlay or specialist intervention; actions like moving archives away from damp walls, making sure they are securely stored and ensuring careful handling will address three of the most common causes

of loss or damage. Please see the list of sources below for further information and consider contacting a qualified Conservators for advice.

Further Resources

The National Archives: <https://www.nationalarchives.gov.uk/archives-sector/advice-and-guidance/managing-your-collection/caring-for-archives/>

The British Library: <https://www.bl.uk/conservation>

Collections Trust: <https://collectionstrust.org.uk/spectrum-resources/conservation-and-collections-care/>

The Conservation Register: <https://www.conservationregister.com/>

What's eating your collection? A guide to pest identification and management from Birmingham

Museums: <https://www.whatseatingyourcollection.com/>

BS 4971:2017 Conservation and care of archive library collections: <https://www.bsigroup.com/en-GB/>

BS EN 16893:2018 Conservation of Cultural Heritage. Specifications for location, construction and modification of buildings or rooms intended for the storage or use of heritage collections:

<https://www.bsigroup.com/en-GB/>

Catholic Archives Society Publications

Naomi Johnson and Claire Marsland, *The Care of Artefacts in Archival Collections*, Catholic Archives Society Occasional Paper, Catholic Archives Society Publications (2020) (available to purchase from the Society)

Alison Day, *Basic Disaster Planning*, Archive Advice leaflet no. 12, Catholic Archives Society Publications (2015), <https://castrial.files.wordpress.com/2016/11/advice12disasterplanning.pdf>

Tamara Thornhill, *Disaster Planning*. Catholic Archives Society Occasional Paper, Catholic Archives Society Publications (2011) (available to purchase from the Society)

© **Tony King**

Senior Collections Care and Conservation Manager

Durham University

This Advice Leaflet may be downloaded from www.catholicarchivesociety.org or photocopied without charge. Please acknowledge the authors and the CAS if a large number of copies are distributed.