

## **SECTION 2: HOW TO PRESERVE PAPER AND PARCHMENT RECORDS**

In any attempt to preserve significant records permanently, the accommodation provided for storage and the physical environment is crucial. Material which charts the life of the community and its legal rights and obligations needs to be brought together in secure rooms in a robust building, preferably constructed of brick, stone or concrete, with good resistance to fire where it can be properly protected against the risks of damage, theft or destruction and where access to it can be controlled to ensure it survives in usable form. Only then can it be fully listed and made available, whether to the community or to others.

Sometimes, particularly in the context of a move or a redevelopment of the community's buildings, it may be possible to avoid major risks, by moving away from sites close to airports, fuel depots, power plants, rivers, contaminated land or waste disposal facilities which may harbour pests. Often, it will be a case of converting existing rooms in a building or utilising existing library accommodation wherever the community is currently located. Safe, dry, lockable storage space is required which is as free as possible from electrical cables, water and gas pipes and other common services which carry risks of fire and flooding. Proximity to kitchens, workshops, bathrooms, laundries, electrical switch or boiler rooms and other places where fire or flood could easily occur should be avoided. Attics and basements are particularly prone to such hazards and are least likely to provide appropriate accommodation without costly counter-measures.

Particular attention should be paid to careful maintenance so that archival storage is wind, water, fire and weather-proof. Floor loading should be checked particularly if mobile racking is installed which creates greater stresses at particular points. Access should be restricted to authorised key-holders and any contractors working in storage areas should be supervised. If there are any windows, they should be fitted with secure locks and fitted with blinds to reduce light levels. Non-flammable shelving (metal or wood treated with an appropriate fire retardant) is recommended on which files and other loose, unbound, records can be placed in boxes of archival quality which can be obtained from an archival supplier. Your nearest local authority record office may be able to point you to suppliers of these containers or perhaps sell them on from its own stock.

Shelving should be at least 150mm off the floor to guard against flood damage and should not be placed directly against external walls or windows which can prevent air circulation and lead to a damp atmosphere in which mould could grow. Poor air circulation could also trap pollutants. Suitably coated metal shelving is preferred to wood, particularly if the archives are unboxed. If wooden shelving is used, older shelving is more inert than new. A fire retardant finish is desirable on wooden shelves.

Drawings, watercolours, maps and other large flat items which are unframed can best be kept in a plan chest. Inert metal plan chests are best, but wooden ones can be used if lined with archival paper protecting stored items from any acids in the wood. Alternatively, loose items can be kept within portfolios of archival paper or card within each drawer. Appropriate security and smoke detection systems should be in place to allow the quickest possible response to any threats.

The conditions within the storage area need to be controlled as closely as possible within ranges of temperature and relative humidity where mould will not grow causing damage to the records and where the temperature is cool enough to prevent paper fibres becoming embrittled through excessively hot and dry conditions leading to the disintegration of documents in this format. A temperature which is subject only to slow change between the limits of 13° and 23° Celsius is recommended, but average temperatures should fall within the bottom half of the range. Similarly, maintenance of a relative humidity level which changes only slowly between 35% and 60% will ensure that paper and parchment are not subject to damaging stresses or the growth of mould. These conditions are also suitable for mixed collections where photographic material, for instance, is interspersed with paper records and forms part of an integral collection.

Fluctuations which take conditions from one end of the scale to another in less than a month are a signal that conditions are unstable and are likely to prejudice the long-term preservation of the collections. A simple piece of equipment, a digital thermohygrometer, can help provide environmental data which should be recorded and checked throughout the year and at different times in the day in order to build up a picture of environmental conditions. This will allow you to adjust the environment accordingly.

A suitable disaster recovery plan and arrangements for immediate treatment of collections by a disaster recovery firm with freezing and other specialist facilities is also important. It can provide clear direction if fire or flood strikes and immediate assistance from trained specialists. You may be able to band together with other local institutions to provide mutual help and support if there is an incident of this kind. This is especially valuable if there is no suitable space in-house for drying out or cleaning documents in-house after a minor incident of flooding. Undamaged materials may be protected temporarily using polythene sheeting. Rescue any affected items when safe to do so and remove them to a dry, preferably cool room, starting with material on upper shelves. For relatively undamaged materials gentle first-aid may be attempted with clean cloths, or by inter-leaving with clean blotting paper, but note that items on coated paper require professional attention. Other documents where inks or dyes begin to run or dirt to spread also require intervention from a trained conservator. Damp but not saturated volumes may be stood upright with the pages slightly fanned out to dry naturally. Saturated materials are very susceptible to damage. They should not be piled on top of one another, nor should any attempt be made at this stage to separate pages or items which are stuck

together. Fire or smoke damage, even if minor, is best left until specialist conservation advice is available.

### **Basic preservation measures**

Preservation is best understood as taking passive (non-interventive) measures to prolong the life of archival collections through measures to house and package them or to control their environment, as opposed to active measures to treat damaged documents to prevent further deterioration and ensure future access (conservation). This should be part of the day-to-day management of any archive.

The key measures can be outlined as follows.

- When records are accessioned into the archive, carefully remove metal staples and paper clips that will rust when records are accessioned and bulldog clips, rubber bands or lever arch files/ring binders with metal fittings that will rust, while making a note of any material information on the covers or spine. Such files or binders can be discarded if they lack such information or packaged separately if they do e.g. in the case of written indexes. Other packaging including rubber bands, string, plastic bags, ordinary cardboard boxes, brown wrapping paper and most plastic wallets and sleeves are damaging to documents containing dirt, acid and other harmful substances. These should be discarded once any contextual information has been recorded e.g. postmarks on wrapping paper. Care should be taken to preserve any original order in which the records have been arranged, particularly when cloth tape or string which can tear papers tied into bundles is removed before decanting into suitable folders, boxes or other storage.
- Isolate any documents that are mouldy or damp in a separate area away from the main collections for treatment by a suitable conservator
- Ensure archival material is suitably packaged and housed with archival quality materials. Material should be housed in folders and boxes which should be of appropriate size to allow material to be stored flat and should not be over-filled. Do not attempt to flatten heavily folded items which could cause damage. Where vulnerable or fragile manuscript volumes require extra protection, they can be kept in custom-made book boxes, with any necessary support of the text block, which can be placed upright or flat on the shelf. These boxes, with drop spines, are the most appropriate storage where volumes have limp rather than stiff board covers.
- Ensure material is regularly inspected and cleaned
- Monitor environmental conditions for appropriateness and stability
- Do not attempt conservation or repairs to damaged material, e.g. removing adhesive tape, which should be left to qualified and accredited professionals
- Avoid the use of ink on documents: any reference numbers provided in the course of listing should be made in soft pencil

- Provide guidance on handling by users to ensure that documents are carefully studied with clean hands and only if fit for production i.e. without causing damage to fragile items.
- Ensure the careful handling of documents by readers and support items where necessary with foam supports and purpose-made weights.
- Regularly check the collections for signs of damp, mould, embrittlement (desiccation indicated by flaking, crumbling paper) or damage from pests (such as silverfish within archival boxes or plan chests) or the presence of other pests (insects or rodents within the storage area).
- Above all, obey the golden rules of preservation and conservation that nothing you do to the records themselves should be irreversible or fail to protect them against obvious hazards. Boxing and the use of plan chests in particular helps to protect documents against water damage and sudden changes in environmental conditions.