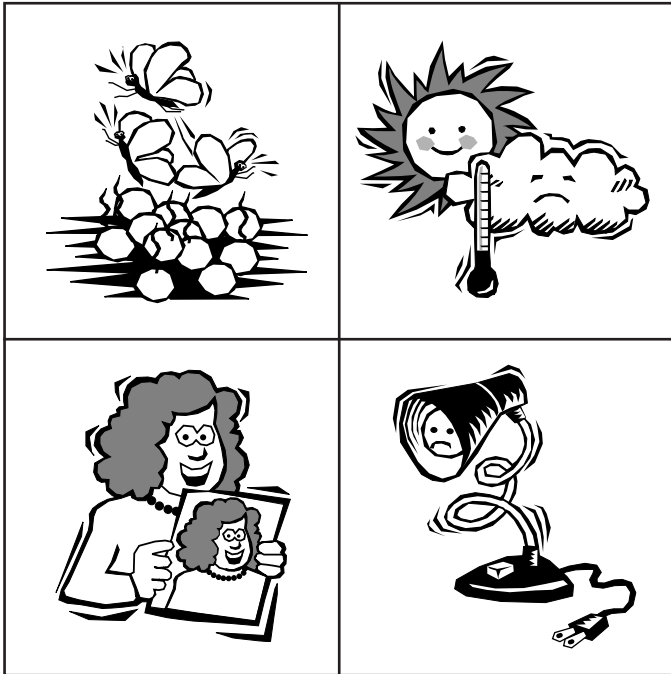


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# Taking Care



**Managing Your Heritage Environment**

Laurel Parson

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# Taking Care

## Managing Your Heritage Environment

Laurel Parson



**General Synod Archives**  
Resources Series #1



**ABC Publishing**  
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# Introduction

## *To conserve or to preserve? That is the question.*

This conservation manual originated in a plan of action for preserving the archival records of the Anglican Church of Canada.

The words *conservation* and *preservation* mean basically the same thing: to keep from harm, decay, or loss, especially with a view to later use; to keep safe; to keep alive (name, memory); to maintain the state of things; to retain quality and condition. But in the archival world, conservation seems to be used as a more active word. Thus, the manual is a plan of action.

The General Synod Archives is mandated by the General Synod's Canon V to collect, arrange, describe, and preserve both the permanent records and related papers of the General Synod and its committees, councils, boards, and commissions; and the official papers of the Primate, the General Secretary, and all other officers and employees of the General Synod. With its records management program, the archives is in fact keeper of the corporate memory.

Each of the dioceses in the Anglican Church of Canada has archives, whether in their custody or on deposit with another archival facility. They are the custodians of parish registers (which are vital records); the permanent records and related papers of the diocesan synod and its committees, councils, boards, and commissions; and the official papers of the Bishop, and all other officers and employees of the diocesan synod. The General Synod Archives and the diocesan archives have formed an Anglican archives network to cooperate in the responsibility of preserving and making available the records of the Anglican Church of Canada.

## **When in doubt, read the manual!**

The most effective conservation program is one that operates as an integral part of the archives long-range planning strategy. The preservation aspect of the mandate requires a long-term plan that raises awareness of the external actions and elements that will disturb the condition of the records and damage them to the point where they need conservation treatment; and outlines the policies and procedures to prevent or inhibit the deterioration of the records. The implementation of such a plan should therefore be a

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management decision, supported at the highest administrative level. A portion of the annual budget needs to be set aside for conservation. A formal conservation program will ensure that available funds are spent in ways that benefit the collections most.

Preventive conservation is the most important part of the preservation plan because it is easily applied no matter how much money is available. It includes activities that cost little or no money, such as removing staples and clips, flattening rolled or folded items, turning lights on and off, careful handling, and basic security procedures. Then there are some procedures that will require a budget, such as proper storage enclosures, environmental control and monitoring equipment, and transferring information to another format (reformatting). These procedures are often eligible for grants, but they should be a part of the organization's support of the archives' mandate. Actual restorative conservation work is expensive; so it is wise to prevent damage.

The preservation of records includes many different factors that interact with and play off each other. This manual is intended to be a guide, drawing attention to these factors and the conditions that contribute to the deterioration of archival material, and recommending the procedures that will prevent or inhibit that deterioration. The manual will deal first with the environment required to protect the collections and then with the handling and care of the records themselves. Because the different factors and archival media will be dealt with separately, some repetition will appear in the recommendations, particularly where different factors affect each other. For the manual to be effective, commitment is required on the part of the archives staff, volunteers, and national, provincial, and diocesan administrators to include preservation in their everyday activities.

The General Synod Archives would like to offer sincere thanks to the Canadian Council of Archives for the financial assistance towards this conservation manual project. Also, thanks to the Anglican archives network for their cooperation in filling out the conservation survey. They helped to identify areas that required focus in the manual so that it will meet the needs of the diocesan archives, as well as the General Synod Archives; and other similar archival organizations.

Laurel Parson  
Project Archivist

Products  
of the Environment



# Products of the Environment

Favourable environmental conditions within an archives will have a profound effect on the longevity of every item in the collection. Ideally, the archives should provide conditions that in no way accelerate the deterioration of material in its care.

The factors that are vitally important in the creation of a suitable environment for collections include temperature, relative humidity, light levels, good housing, air circulation, and air quality. The most important fact to remember is that repeated large, rapid changes in temperature and relative humidity cause the most damage to material. Try to provide conditions where temperature and relative humidity are constant or fluctuate only gradually and are kept as close as possible to the guidelines. There may have to be some compromise between the ideal settings and human comfort, if separate storage areas or separate heating, ventilation, and air-conditioning (HVAC) system controls are not possible.



## House and Home (Building and Maintenance)

Regular maintenance of the building or rooms housing the archives is a good start towards reaching the goals for environmental controls. Weather-stripping around doors and windows stops air leaks in winter and summer. Roof maintenance prevents water damage. Ensuring proper drainage around the perimeter of the building and routinely checking drains for partial blockages will prevent flooding. Providing insulation, storm windows, screens, and humidifiers/dehumidifiers aid in making the building sound.

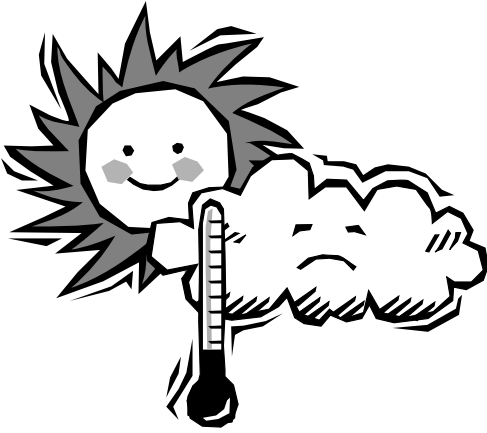
The use of attics and basements should be avoided when possible. Attics are too hot and are high-risk areas for water damage from a leaky roof. Basements are often too damp and have a high risk of flooding. If it's necessary to use this kind of space, store less valuable material there. If you must use the attic, use fans for air circulation and make sure the roof and eavestroughs are sound. Likewise, in the basement, check drains and keep boxes well off the floor, four to six inches up, and use a dehumidifier. Keep shelving four inches away from the walls to allow air circulation. Do not store things near or beneath hot water or heating pipes because of heat and risk of water damage.



## "Molly Maid" (Housekeeping)

A clean, neat, well-organized storage area helps to prevent accidents and reduce deterioration of the collection from soiling and physical damage.

- The storage area should be inspected regularly for dust, debris, water leaks, and the presence of insects or other pests.
- Storage areas, workroom, and reading room surfaces (tables and floors) should be cleaned and dusted regularly.
- All boxes should be on the shelves, not on the floor, where water, caretakers, and pests can cause damage.
- Garbage cans should be emptied and their contents removed from the archives every day.



## Weather Forecast (Temperature and Relative Humidity)

### Defining the problem

Temperature, how hot or cold it is, and the relative humidity (RH), the amount of water vapour in the air compared with the amount required for saturation (the point where air can hold no more water) at a given temperature, are two elements that dramatically affect all archival material in an archives. Too much heat and humidity speed the growth of mould and increase chemical deterioration. By the same token, hot dry air makes items brittle and fragile.

The recommended **temperature** is 18°C to 20°C. 20°C to 23°C is acceptable, for the sake of human comfort, if the temperature is constant.

But 25°C is not acceptable. At this temperature there is marked acceleration in the aging process.

When there is a mix of archival media, it is more difficult to recommend a level of **relative humidity (RH)** that will benefit each type. The compromise seems to be 35% to 45%. At this range, paper documents, photographs, film, and leather-bound volumes will be okay. Where weather fluctuations are extreme, the change of 35% RH in the winter to 55% RH in the summer should be gradual, at 5% increments. If paper is the major portion of the archival material, then 25% RH is too low. Such a low RH will cause the paper to become brittle and leather to harden. The RH should never be allowed to rise over 60%. A high RH accelerates chemical and biological deterioration. Fluctuations in relative humidity between 40% and 80% will

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cause severe damage because of swelling and chemical reactions that weaken the physical bonds and set up stresses within the documents themselves.

If temperature and relative humidity levels cannot be maintained at ideal levels, keep them as constant as possible, because fluctuations can cause more damage than high or low levels.

### *Recommendations*

- Record temperature and relative humidity daily, at a regular time, using a thermometer and hygrometer or a thermohygrometer. The record of fluctuations will indicate the quality of the storage facilities and those seasons when environmental conditions require more attention to keep the temperature and relative humidity under control.
- Control the temperature and relative humidity in the archives whenever possible, using devices such as humidifiers, dehumidifiers, and fans.
- **Never shut off the heating/air-conditioning system at night, or on weekends and holidays.**



## No Light Shows, Please! (Light)

### Defining the problem

Visible light, whether natural (sunlight) or artificial (fluorescent or incandescent), can damage and weaken paper over time, causing it to lose its flexibility and turn brittle. Light causes paper to yellow, and writing and colour to fade. Light creates heat, which accelerates the rate at which materials age. Archival material needs to be protected from excessive intensity or duration of exposure to visible light, and also the UV component of light.

Both sunlight and fluorescent light are sources of ultraviolet (UV) light, the most harmful wavelengths of light for archival material. Ultraviolet rays do not react directly with cellulose molecules, but rather with the impurities (acid, lignin, glue) found in paper. The product of this reaction attacks cellulose, breaks the molecular bonds, and weakens the material. The oxidation of paper exposed to light is increased at high temperatures and when the surrounding air is polluted.

### Recommendations

- Store archival materials away from light. Keep all archival material covered or boxed when not actually in use.
- Control natural sunlight in research areas with blinds, curtains, or UV film or filters on the windows. Storage rooms should be windowless or covered with heavy black curtains and blinds because direct sunlight creates a noticeable increase in temperature.
- Subdued lighting should be used in storage rooms to inhibit the proliferation of fungi, insects, or rodents that prefer darkness.
- Install ultraviolet filters over fluorescent lighting. These filters are plastic covers that slip over the fluorescent tubes, screening out ultraviolet rays.
- Check regularly used materials for fading or drying. Closely monitor any items stored in the open or without proper containers.
- Avoid using original items in displays or exhibits. If possible, replace them with copies, either photographic reproductions or photocopies.
- When assessing light levels in the archives (visible light and ultraviolet light), keep a record of changes in light levels, using a 35 mm camera as a monitor, then apply the appropriate recommendations to reduce the amount of light the records are being exposed to. (See *CCI Notes*, 2/5, for instructions.)



## Acidity – Everywhere! (Acid)

### Defining the problem

Acid is the worst enemy of all archival materials, whether cellulose-based or paper-based. It is produced by certain procedures during the manufacture of paper and the lignin in wood pulp. Acid is transmitted through elements that come in contact with archival materials, such as sulphur dioxide in air pollution, ink, the chemical effects of fungus, and other acidic material.

Acidity is measured by its pH on a scale of 1 to 14. A pH of 7 is neutral, lower numbers are acidic, and higher numbers are alkaline. Permanent papers will have a pH of between 7.5 and 9.5. If the pH is below 3, the document will deteriorate to such an extent that restoration would be impossible. An acidic document becomes very brittle and can hardly be handled at all. Sulfuric acid stains documents and alters text and illustrations. Acid destroys the silver nitrate on photographs and film, causing spotting.



### *Recommendations*

- Store archival materials in acid-free containers, both folders and boxes. This is one of the best preventive measures you can take in your archives.
- Remove all clips, staples, pins, string, tape, rubber bands, and other extraneous items from archival material; these may be acidic or rusty. Use plastic or stainless steel clips, if necessary.
- Use metal shelving whenever possible; wooden shelves usually have a high acid content. Wooden shelving can be painted or lined to reduce acid migration. Paint the shelves with two coats of acrylic latex paint. Allow two to four weeks' curing time for the fumes to dissipate before storing archival material on the newly painted shelves. If wooden shelves cannot be painted, a shelf lining of polyester, acid-free paper or acid-free board will reduce the migration of acids from wood to documents.



## Science Experiments (Fungi, Mould, and Mildew)

### Defining the problem

**Fungi** are life forms that feed on the basic ingredients of paper. The product of their metabolism forms carbon dioxide (CO<sub>2</sub>) and produces certain acids such as oxalic, citric, and lactic acid. Unlike plants, fungi grow more quickly in darkness than in light. Rag-based papers are more resilient than wood pulp paper. The first signs that paper is deteriorating are changes in colour, the appearance of stains, and weakening.

**Moulds** are fungi that live on organic matter. Mould spores are always in the air but grow only if they have food (organic matter) and when the temperature and relative humidity are high (over 65%). They may lie dormant a long time, but when conditions are favourable they multiply at an alarming rate. Thus, documents stored in basements or in areas with poor ventilation are exposed to greater risk. Paper with pH 5.5 and 6 are more resistant. Documents attacked by mould can be identified by the powdery areas that form on the surface of the material. Unless the problem is rectified, the paper will become fragile, soft, and absorbent, until it is reduced to dust. Mould also attacks ink and makes it fade. Mould also grows on leather.

**Foxing** is brown spots that appear on documents as a result of chemical reaction between the impurities in the paper and the organic acids released by fungi and polluted air. Seventeenth- and eighteenth-century documents made from almost pure cellulose are less affected by foxing than nineteenth-century paper.

### *Recommendations*

- Keep temperature and humidity levels consistent, ideally at 19°C to 22°C and below 45% RH, to control mould and mildew.
- Keep storage rooms well ventilated with fans and lit with low-wattage lights to prevent fungi from growing.
- Fumigate infested material to kill fungi and spores, under the direction of a conservator.
- Isolate any infected material by sealing it in a bag and removing it from the rest of the collection, until it can be properly dealt with.



## Don't Bug Me! (Insects and Rodents)

### Defining the problem

There are more than 70 species of insects that attack paper. Cockroaches, silverfish, mites, termites, booklice, paperworms, beetles, and moths are the most common. They feed on the cellulose and starch in books and papers, and certain other insects feed on the glue of the bindings. All can completely devour a document. The excrement of many insects produces a dark liquid that discolours paper.

Rats and mice are common rodents found in archives repositories. They devour paper, leather, glue, and gelatin. Rats build their nests in the spaces between the walls of a building, while mice prefer to use paper. Both are very difficult to exterminate. Building maintenance is very important to prevent rodents from becoming a problem. Cracks must be patched as soon as they are discovered to prevent rodents from entering the facility. If rodents are a problem, storage rooms must be kept very clean, well lit, and adequately ventilated.

### *Recommendations*

- Efficient housekeeping and maintenance of the building itself will discourage infestation.
- Controlled temperature and relative humidity and good air ventilation discourage insects and rodents.
- The storage area should be located well away from the building's garbage depot, and from kitchen facilities or eating areas.
- Check incoming material for signs of insects before placing it in storage.
- Store infested items away from other archival material, until they can be cleaned under the direction of a conservator.
- Never eat or drink in the storage, research, or processing areas.
- Set sticky traps to catch insects and, if necessary, set traps or poisoned bait traps to catch rodents.
- Don't allow live plants or flowers in the archives; they attract insects.
- Clean any new building or storage area before you move in. Also, have it fumigated if possible.



## Midas-ize It!

### (Pollution)

#### Defining the problem

Polluted city air contains substances that are very damaging. These include sulphur dioxide, hydrogen sulphide, ozone, nitrogen dioxide, ammonia, etc.

**Gaseous pollutants** can originate from outside (industry, vehicles, combustion processes) and inside (cleaning supplies, paints, untreated wood, paper products with high lignin content, certain kinds of adhesives and plastics, and electrostatic photocopiers that generate ozone, which degrades paper and photographic images).

**Particulate pollution** consists of tiny solids such as grit, grime, smoke, and dust, which are abrasive and acidic, and react with moisture to accelerate chemical degradation. Soot can be a problem in industrial and heavy traffic areas. Special filters may be required to prevent the particles from settling and staining materials.

These pollutants weaken the structure of paper, stain it, make it very acidic, and cause inks and colours to fade.

### *Recommendations*

- Allow no smoking or cooking in the vicinity of the archives.
- Keep the building dust-free by regular thorough cleaning.
- Check the grills of the heating and/or air-conditioning units that filter the air in the archives. The presence of grime might indicate a problem and require maintenance or change of filters. Change the filters frequently.
- In cities with severe air pollution, an adequate air-conditioning and ventilation system is recommended and, in certain cases, it may even be necessary to install an air purification system.



## Caution! Danger Ahead (Disaster Management)

### Defining the problem

Archival materials can be damaged or destroyed by a natural disaster or a man-made disaster. Such events, though rare, could happen any day. The challenge is to prepare for accidents. To minimize the destruction caused by natural disasters such as tornadoes, earthquakes, and electrical storms, the archives need to hire a professional conservator to analyze what kind of potential dangers could threaten the region and how the facilities would withstand the onslaught. The conservator would then recommend precautions to be taken to secure the building and its holdings, and outline a plan of action, including who to call and what to do when disaster strikes.

The conservator's report would also cover potential man-made disasters that are caused by conditions within the building. The General Synod Archives had a conservator prepare a disaster plan for their archives that details the potential problems, with the physical location of the building and within the building itself, and what to do about them. In any building there are potential dangers involving fire or water.

**Fire** can be caused by a number of factors. Electrical wiring can malfunction. Motors in equipment or appliances (fans, dehumidifiers, office equipment, coffee-makers, etc.) can overheat if used constantly without being allowed to cool down. Chemicals that give off gases can ignite under the right conditions. Smoking can be dangerous if people are careless or forgetful.



**Water** can be a problem in many different ways. During a fire, water from the sprinklers can cause a lot of damage. And the iron oxide that collects in water that sits in pipes for a long time can cause staining. Leaking pipes over archival storage areas, overflowing dehumidifiers, faulty drains, malfunctioning toilets, and basement flooding are other causes of water damage to archival material.

### *Recommendations*

- Store flammable liquids, chemicals, paints, and solvents away from the archives.
- Have office equipment and small appliances in a separate location from the archival storage rooms.
- Prohibit smoking near archival material and in the storage area.
- Install adequate fire extinguishers, sprinklers, and/or smoke detectors, and learn how they work. CO<sub>2</sub> or dry chemical fire extinguishers cause less damage. Water sprinkler systems can be configured to minimize the amount of water discharged in the event of a fire.
- Have the local fire department inspect the archives for fire hazards and suggest preventive measures specific to your building.
- Ensure that the wiring and building construction is sound and free of hazardous materials.
- Identify past and future leak areas from overhead pipes. Check and repair all defective plumbing. Install plastic sheets with duct or packing tape to protect the material from direct water contact.
- Store materials on metal shelving at least four to six inches above floor level to reduce the risk of water damage.
- Do not situate shelves near water pipes, heating pipes, or any other source of heat, such as radiators or air vents.
- Set shelves and cabinets away from outside walls, and position them in a way that allows air to circulate around them. Outside walls may be damp, especially when the temperature outside is lower than inside and

the building is poorly insulated. It is best to locate the storage area in the interior of the building, where environmental conditions are normally easier to stabilize.

- Install fire doors or walls, dividing the archives into compartments to confine fires or flooding.
- Microfilm or copy vital records and major finding aids; backup computer disks, and store the copies in another location off site; in case of a disaster, not everything would be lost.
- Have a conservator come and prepare a disaster plan for your archives. And follow through by having the recommended Supplies and Disaster response team in place.
- Ensure that you have adequate insurance to help offset the costs of disaster recovery.

## *Special Needs Class*

### *Bound documents*

Bound paper documents have several kinds of bindings, including leather, rough calf or suede, vellum and parchment, cloth, and paper.

Environmental conditions and other factors such as handling have a direct effects on book bindings, particularly on those made of leather.

Deterioration results when the materials absorb atmospheric pollutants such as sulphur dioxide. Leather bindings lose some of the natural oils and fats that serve as lubricants, and begin to crack during normal handling. Vellum and parchment are particularly sensitive to humidity. They swell up a lot and have been known to pop off shelves if they are snugly packed — constant temperature and relative humidity are important.

### Recommendations

- Temperature and relative humidity are important – less than 30% RH is too dry; it causes loss of moisture and embrittlement of leather. 65% RH and over is too high; it causes mould to grow. Hot display cases and storage near radiators can cause the leather to dry up. Recommended settings are 45% to 55% RH and 18°C to 20°C temperature, with adequate air circulation.
- Light causes irreversible damage to books; so limit the exposure time. Avoid storing or displaying books under spotlights, sunlight, or artificial light, all of which can cause discolouration, desiccation (loss of moisture), and photochemical degradation.
- Handling of books determines longevity as well. When removing a book from the shelf, avoid pulling on the headcap (the leather covering at the head and tail of the book, formed by turning the leather on the spine over the head and tail and shaping it) because this will damage the spine. Use both hands for large or heavy volumes. When removing a volume that is beneath another, remove the top volume first.
- Avoid damaging books by photocopying. Flattening the book onto the flat copy platen can break the spine and cause the pages to fall out.
- Place books vertically on the shelf, supporting them with book ends. To facilitate removal, do not pack books too tightly.
- Store large volumes flat, keeping stacking to a minimum.
- Ideally, identification or call numbers should be marked on strips of acid-free paper and inserted directly into the books, not applied to the spines. This will preserve the binding.

## Photographs

### *Glass plate negatives*

The longevity of glass plate negatives depends on the relative humidity, together with aggressive chemical reactants in the storage environment. Fluctuations in the relative humidity (RH) cause considerable strain on the adhesion of the gelatin to the glass plate as the gelatin expands and contracts, although the glass support is generally not affected. Glass plates need to be handled carefully because they break easily. Store glass plates vertically in a tightly packed manuscript box or in a box equipped with grooves. The box should be made of rigid plastic or of metal coated with baked enamel, not wood or cardboard.

### *Film negatives*

Film negatives are sensitive to RH fluctuations. They curl when it's dry and flatten out when it's humid. Avoid fluctuations of 4% RH in one day. Store in cold dark storage area (even as low as 0°C).

**Nitrate negatives and films** should be separated from others because of their instability and flammable nature. They should be stored in a cool and well-ventilated space until copied and/or destroyed.

### *Photoprints*

Photoprints are subject to the same environmental controls as the glass plate and film negatives. If the environment is too dry, the prints will curl up tightly; RH levels are important. The combination of aggressive chemicals, high RH, and high temperature will lead to a discolouration of the image. Store like glass plate negatives. Do not fold, bend, or roll prints. Do not write with ink on the back; it can bleed through. Do not staple or clip anything to the prints.

## Recommendations

- Relative humidity level – 20% to 50%, preferably below 40%, never over 60%.
- Temperature – 15°C to 25°C. Avoid vast fluctuations.
- Reactive chemicals, such as peroxides, hydrogen sulfide, sulfur dioxide, or ozone, should not be present in the environment.

- Store in the dark to avoid prolonged exposure to light — it embrittles the gelatin layer.
- Use gloves when handling photographs; fingerprints and scratches will ruin the image.
- Ideally, photographs should be stored in individual enclosures of lignin-free, acid-free envelopes on which identification can be marked.

### Sound recordings

#### *Sound disks*

Sound disks (records or LPs) are made of various materials such as wax, shellac, and vinyl, all of which contain organic components that are susceptible to environmental changes. In the 1930s and 1940s “instantaneous recordings,” made of cellulose compounds, were common and are extremely unstable. They should be taped if discovered in the archival material. All disks are subject to damage by dust, particulate matter, and fingerprints, and are easily scratched.

#### *Magnetic media*

Audio-cassettes, 8-track tapes, and reel-to-reel audio tapes are magnetic media that consist of metallic oxides applied to a carrier such as polyester, cellulose acetate, or paper. The oxide surface contains magnetic particles, which store information in patterns that are “read” by playback equipment. Damage results in loss of data, which is detected only when the tape is played back.

### Recommendations

- Avoid direct sunlight or light sources that generate heat.
- Temperature — 18°C to 20°C.
- Relative Humidity — 40% to 45%. Avoid wide fluctuations in temperature and RH.
- Don’t touch the tape; tapes are susceptible to abrasion and to skin oils, which cause damage resulting in the loss of data.
- Keep magnetic media away from magnetized objects, such as magnetic catches on cabinets, magnetized paper clip holders, and any electrical equipment that may cause a magnetic field that erases data.

## Moving images

### *Video-cassettes*

Video-cassettes are magnetic media similar to audio-cassettes with magnetic particles on an oxide surface, which stores information that can be viewed when read by playback equipment. The video tape should never be touched, and the video-cassette should be kept away from magnetic objects to prevent loss of data.

### *Filmstrips and reels of film*

Films and filmstrips have an image layer, composed of a gelatin emulsion supported by polyester, cellulose acetate, or cellulose nitrate. Gelatin emulsion will grow mould when the relative humidity is high. High temperatures and changes in RH levels will cause the gelatin layer to separate from the base.

Cellulose nitrate is dangerous because it is flammable and generates acidic fumes. Any such films should be removed from the main collection. Store in metal cans in a cool, well-ventilated area until they can be copied.

## Recommendations

- Store films and filmstrips in light-tight canisters.
- Do not project original films. Make a service copy and then store the original.
- Temperature — 15°C to 25°C; above 30°C is not acceptable.
- Relative humidity — 35% to 40%.
- Keep video-cassettes away from magnetic objects or electrical equipment that can cause a magnetic field.

### **Electronic records**

Computer tapes, disks, and diskettes are magnetic media that store information using magnetic particles on an oxide surface that can be read by computers.

This media is particularly sensitive to magnetic fields, which can cause the permanent loss of data.

### **Recommendations**

- Temperature — 18°C to 20°C
- Relative humidity — 40% to 50%
- Keep electronic records away from magnetic fields (magnetic door catches, telephones, and other electrical equipment that cause magnetic fields) to prevent data erasure.
- Write out labels before attaching them to the computer diskettes.

# Protective Custody

(with visitation rights)



## Protective Custody (with visitation rights)



### Signed, Sealed, and Delivered Processing

Isolate new accessions from the main collection in a separate storage area until they have been examined and any problems identified and dealt with. Never put mouldy or infected materials in with the main collection.

Material should be stored in a box that is an appropriate size. The contents should fit in the box firmly enough to prevent sagging and distortions, but loosely enough to be easily removed and replaced. A partially empty box should be “filled” with some acid-free material (tissue, cardboard, rolled file folder) so that the materials are held upright.

Never fold archival materials to make them fit into the storage system. Instead, make the system accommodate a range of objects. Items that come to the archives folded should be unfolded when processing. Also, rolled items should be flattened by applying weight on top of the items and leaving them at room temperature. Make sure there is acid-free paper or folders between the item and the weight, especially if the weight is acidic (e.g., heavy paper-bound books or a wooden press). The humidity should relax the document enough for it to flatten out. If this does not work, a conservator may be needed to advise on special treatment.

Oversized materials should be stored properly in boxes, map cabinets, or acid-free covers to protect them from light, dust, and other potential damage.

Remove any acidic slips, envelopes, or enclosures so that they do not contaminate the rest of the material. If they were intrinsic to the archival item from which they were removed, place them in a separate, well-labelled enclosure and store them with the item.

Remove elastic bands, book bands made of acidic paper, paper clips, staples, and pins. All these fasteners cause staining and discolouration. Some may become permanently affixed to the document over time. Others can cause indentations and cackling.

Never use pressure sensitive tape (i.e., scotch tape), self-stick paper notes (i.e., post-it notes), or masking tape on original material, even temporarily. Tape adhesives discolour over time and can stain a document permanently.

When archival items should be held together, use only plastic, plastic-coated, anodized aluminum, or stainless steel paper clips. A slip of acid-free paper should be placed between the clip and the archival document to prevent marking of the document.

## Labelling

Identification of archival material is essential, but whenever possible, the protective enclosure rather than the object should be labelled. And, therefore, the document/item should never be separated from the enclosure (i.e., flag pages for photocopying within a file rather than taking them out of the file).

Labelling should be done in pencil. Ink is acidic, can bleed, and runs when wet; it can ruin a document. If the item itself needs to be marked, write in soft pencil on the verso.

Adhesive-backed labels and dots and silk labels should never be used directly on archival material. Typed or computer-generated labels can be used if they are applied to the enclosure. Laser-printed labels can lose their ink when moist (i.e., in high humidity); so it may not be a good idea to apply them to the back of photographs or other archival materials, because they could cause damage.

Avoid using stamped labels. Stamping can deface a document if not placed discreetly, can damage a document, and is labour intensive.



## Visitation Rights

Responsible reference services require archivists to beware of causing damage themselves, to provide alternative access to frail records, and to ensure that researchers know how to treat archival material.

### When providing access

- Always treat the documents gently. When removing the object from its protective enclosure, pull on the enclosure, not on the object.
- Never use pens near archival material. Always use a pencil; inadvertent pencil markings can be erased.
- Restrict the use of deteriorated material. Make copies for research purposes.
- Treat minor problems right away before reshelving documents. Flatten folded corners, put books with loose spines or covers in boxes, provide support for photos and drawings with brittle backing boards, etc.

## Alternatives to handling original material

Substituting a reproduction for the original is the best way to protect records that are fragile or frequently used.

### *Photocopies*

- The cheapest alternative is photocopying.
- Avoid repeated photocopying of any item. Rather, make one high-quality photocopy and use that for all further copying. This applies to paper documents, black and white photographs, and books.
- Never trust reproduction photocopying to a copy shop employee or leave it at the shop to be picked up at a later date. Archival material is irreplaceable; you would not want it damaged or lost.

### *Microforms*

Microforms, either microfilm or microfiche, are durable substitutes. Some items that are retained solely for their information content, yet are bulky or have a high potential for deterioration (e.g., newspapers), may be copied onto microform for reasons of stability, space, and usefulness. They should be microfilmed according to ANSI standards by trained staff or a reputable microfilming company. It is good to get two copies of the film, one for use and one for security.

### *Reformatting*

Unstable formats such as magnetic based media should be copied every five to ten years so that the risk of data loss is minimized. Records are copied into other formats not always because of their poor condition, but because of changing technology. Antiquated formats, such as reel-to-reel sound tapes, 8-track tapes, and electronic records, require the proper equipment for playback. The increasing difficulty of maintaining old equipment often requires that the records be transferred onto a more up-to-date format so that they do not lose their informational value. Any records that cannot be read are in effect lost.

### *Suggested rules for users*

Archives can communicate the rules for the archives on a handout, on a sign, or on the registration form that researchers have to read and sign. The information should include copyright restrictions, availability of reproduction services, and some rules for handling archival material.

- Use pencil for taking notes to prevent any accidental marking.
- Handle archival material carefully. Never write on it, lean on it, or use it as a backing pad while writing.
- Do not force bound material open. Support book covers from beneath to avoid strain on the spine.
- To prevent unnecessary exposure to light, keep material covered or in its protective box or folder when not in use.
- Keep all material in order within the proper box or folder.
- Archival material must not be marked, folded, or soiled in any way. Any accidents, or the discovery that material is damaged or out of order, should be reported at once to the staff.
- Photocopying of documents will be done by staff.
- Archival material may not be removed from the reading room for any reason.
- Eating, drinking, and smoking are not permitted in the reading room.
- Coats and bags should be left at the coat rack away from the reading room.



## Exhibitionists and Mercenaries

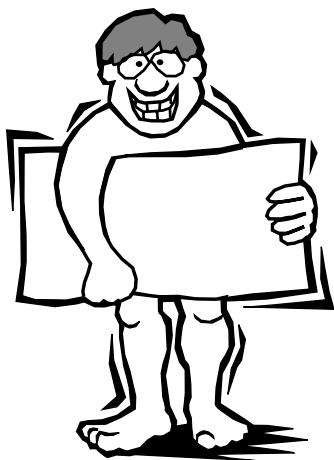
### (Displays and Loans)

Many archives mount displays to increase public awareness of archival holdings, to disseminate historical information at anniversaries, and to increase public relations for the corporate body at conference-type functions. In the Anglican Church setting, the diocesan archives are often asked to loan out records for anniversaries that are being written and for displays being prepared for synods. But the archives' mandate is to preserve archival material, which can be damaged when on display. Damage can result from excessive exposure to light; lack of support for paper documents, photographs, and books; and poor environmental conditions.

### Recommendations

- Use low-wattage lights in the room (50 lux or less). Display cases should be illuminated with track lights or more distant lighting. If the cases have their own lighting inside, the power should be switched off or the amount of light should be reduced by removing a fluorescent tube if there are two. Display cases should not be in the direct line of sunlight. If they cannot be moved, cover the display cases when the exhibit is not open to the public.
- Limit the amount of time for a display from three to six months. Light-sensitive media such as watercolour paintings, hand-coloured manuscripts, and colour photographs should be displayed for a shorter period of time so that the light does not cause fading.

- Do not display original photographs; have reproductions made.
- Do not dry mount original material under any circumstances.
- Never overlap display items; uneven fading and possible discolouration from acid transfer may result.
- Wooden display cases should be sealed with acrylic latex paint to minimize acid migration from the wood. Alternatively, the case could be lined with acid-free material.
- Lining or cover props for the display case should be made of acid-free or inert material, and cloth should be colour-fast.
- A book on display should be held open by mylar bands or strips, never elastic bands or paper clips. It should always be adequately supported by a book cradle. If the display is long-term, the book should be closed for 24 hours once a month and the page exposed should be changed.
- Original records, legally required documents (letters patent, parish registers), and only copies should not be loaned out for display. Photo reproductions or photocopies should suffice.



## Intimate Apparel (Enclosures)

Almost all types of archival material should be stored in some form of enclosure to protect them from the environment and the elements that cause harm. The enclosure may be as basic as a records box, as long as it provides sufficient physical protection for the material it is housing, is free of harmful components, and permits removal of the contents without risk of damage. Books are an exception; if they are in good shape, they only need to be shelved.

Enclosures are meant to be protective, and yet they can be harmful if they are acidic. Protective enclosures in direct contact with the documents should be acid-free. Buffered files are okay for paper records, but not photographs. Acidic paper products such as newsprint, printed papers, and general-purpose brown wrapping paper should not come in contact with archival material.

It must be possible to remove the object from the protective enclosure without damaging the object. For this reason, lamination is not acceptable for archival papers. If a document is so fragile it needs to be encapsulated, use mylar sheets with double-sided tape, leaving some breathing space at the corners. Make sure the tape does not touch the document.



### Paper documents

Enclosures should protect and support documents during storage and decrease wear during retrieval and use. The primary enclosures — usually envelopes, sleeves, or folders — are in direct contact with the object and affect the document and its immediate environment. Therefore, the enclosures should be acid-free — neutral-pH and alkaline-buffered products are acceptable for paper products. If there are some poor quality paper documents (newsprint) in with mostly good quality documents, separate them by putting them in their own folder to avoid the transfer of acids and other contaminants. Secondary enclosures — usually boxes — do not touch the documents, and therefore have less direct impact.

**Do not fill an expensive acid-free box with regular office folders!**

### Bound documents

**Books** in a fragile state should be enclosed in book wrappers such as archival dust jackets or in a simple wrapping of acid-free paper; or in book boxes, standard or custom made. (See *CCI Notes*, 11/1, for construction and materials needed.)

**Pamphlets**, depending on thickness, can be protected by an archival dust jacket (portfolio design), or acid-free envelopes.

**Albums** or **scrapbooks** that need to be kept intact can be interleaved with acid-free paper. Or encapsulate each page and rebind them together. Or store in a box to keep loose elements from getting lost.

### Machine readable data carriers

Machine readable data carriers should be climatized (allowed to sit in the archives environment for a couple of weeks) before being sealed into any enclosure. Store them vertically, never horizontally.

**Reel-to-reel audio tapes** can be stored in metal cans, chemically inert plastic containers, archival cardboard boxes, or even zip-lock polyethylene bags.

**Audio-cassettes** can be stored in the plastic containers they come in.

**Disks/Records** should be stored in an acid-free sleeve or in a polyethylene liner inside the original cover. Store vertically without leaning, as this causes warping.

Optical media such as **optical disks, compact disks, CD-ROMs,** and **WORMs** can be stored in the plastic containers they come in.

### **Photographic records**

**Photographs**, if not used much, should be stored in acid-free and lignin-free envelopes. Store frequently used prints in acid-free unbuffered folders. They should be well supported within the archival box so that the prints don't curl or bend and the glass plates don't break.

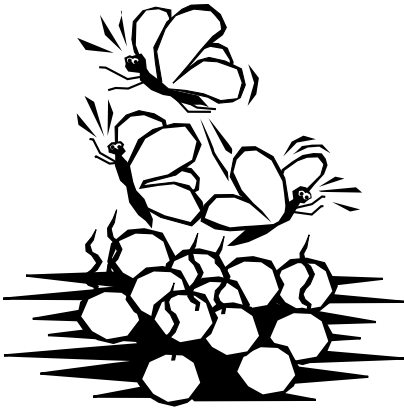
**Film in sheet form** can be stored in acid-free paper, envelopes, folders, etc.

**Slides** can be stored in archival quality paper, plastic, or metal boxes or sheet holders.

**Films** (aerial film, motion-picture film) should be stored in closed opaque containers to protect them from dirt, physical damage, and light. These can be metal cans, if clean, rust-free, and not damaged, or polypropylene plastic cans. Store vertically unless they are big heavy films, which should be laid flat.

**Microfilm** should not be stored in cardboard boxes containing wood pulp because the pulp reacts with the silver nitrate on the film and causes red spots. This happens particularly with negative microfilm. Cardboard cores/reels and boxes should be replaced with inert plastic, such as polypropylene, to prevent this kind of deterioration.

(See Special Needs Class, p. 25, for more information)



## Cedar Chests and Mothballs (Storage equipment and location)

If at all possible, the storage room should be in an interior room, not a room with outside walls. If the room does have outside walls, set the shelving four inches from the walls to allow proper circulation and prevent contact with potential dampness. (See *Disaster Management*, p. 23.)

Metal shelving with baked enamel finish is the preferred shelving for archives. Wooden shelving is acidic and should be treated specially to prevent acid from damaging the records. (See *Acidity*, p. 15.)

Shelving should be four to six inches off the floor to prevent water damage. (See *Disaster Management*, p. 23.)

Provide adequate space on the shelving. Resist the temptation to force one more box on the shelf!

The design of the storage area should take into account the expansion of the collection. It is good to look ahead five years.

The layout should serve the needs of the collections and the staff:

- Make aisles wide enough so that people can pass without bumping into shelved material and so that boxes can be removed from the shelves easily.

- Position light fixtures over aisles rather than over the shelving for better lighting.
- Provide a stepladder or stool to reach material on upper shelves.
- It's good to have flat surfaces available throughout or near the storage area for the examination of books or the contents of boxes. Book carts in between the stacks are good for this purpose.



## Salvaging the Wreckage (Conservation)

Actual restorative conservation work should always be done by a conservator or under the supervision of a conservator. The following are some basic steps that can be taken with material that is damaged or infected and will require conservation work.

### Mould

Mouldy material should be removed from the collection at once. Make certain it is completely dry; then wrap it in plastic bags, label, seal well with tape, and store in a safe place away from the rest of the collection. If the original must be preserved, keep it wrapped and segregated until it can receive fumigation or conservation treatment. If fumigation or conservation is not possible and the information on the mouldy item is needed, consider making a copy, then discarding the original.

### Taped material

If material has already been repaired with pressure-sensitive tape, it is best to leave the tape until it can be dealt with under the guidance of a conservator. Do not attempt to peel off the tape if the adhesive is still sticky — the risk of lifting the surface of the paper is too great. If the adhesive is dry and brittle, the tape backing will often flake off on its own, leaving behind an adhesive “stain.” Under no circumstances should an unskilled person try to remove this residue. Leave the task for an expert.

### Stuck material

Materials that are stuck together should generally be left to a conservator to rectify, because the material could be damaged.

### Fire damage

Charred or fire-damaged material, provided that the damaged material is dry, can be wrapped in plastic bags, labelled, and sealed well with tape. If still-legible information on the surface is needed, one of two options may be chosen, depending on the type of material and degree of damage. Either the item can be encapsulated after loose debris has been cleaned from its surface, or the information can be recorded by photocopying, photographing, or microfilming. Once the information is recorded, the original can be stored as described above or discarded. Actual restorative conservation treatment should be considered only for very special items.

### Water damage

Wet materials, such as paper documents, photoprints, silver gelatin dry plate negatives, and books, should be frozen as soon as possible to prevent mould and further deterioration caused by the water. Any kind of film that gets wet should be immersed in clean cold water and taken to a film laboratory as soon as possible. After 48 hours colour and positive film will be damaged, so wet film needs to be dealt with quickly.

When freezing material, organize it into bundles two inches thick and interleave it with freezer paper or waxed paper, or use freezer bags if the appropriate size is available. Make sure each bundle is labelled with pencil or waterproof ink. If there is a lot of material, bundles can be arranged in boxes to be carted to the freezers. Either home freezers or commercial freezers can be used, depending on the amount of material affected, but the

material needs to freeze quickly to prevent large ice crystals from forming. Freezing of materials should be done in consultation with a conservator, who can also arrange for drying and conservation treatment.



## Hark! Who Goes There? (Security)

The material held in the archives is for the most part unique and irreplaceable, and in some cases vitally important in the life of the church or organization and its members. Therefore, it is very important that procedures be put in place to ensure the security of the records against theft, vandalism, and physical damage.

### **Recommendations**

- Provide 24-four hour protection for the archives by securing the building with proper locks on doors and windows, controlled entry when open to the public, and alarm systems.
- Always supervise the reference area, serving as both witness and visual deterrent.
- Try to divide the reference and storage areas, and do not allow researchers in the storage areas.
- Provide an area for coats and bags separate from the reading room tables, and don't allow researchers to take them into the research area.
- Have all researchers register, with full address, phone number, and research interests, on the first visit and then sign a daily register on consequent visits.

- Inform researchers about the research rules, restrictions, and services offered before they begin their research.
- Control the amount of material researchers have at one time, to prevent material from getting misfiled or lost.
- Do not leave material unattended or storage areas unlocked when staff are not present.
- Don't allow archival material to leave the archives without your permission. When material is taken, record who has the material. Institute a call slip system to keep a record of loans, in case a box or file goes missing and is not noticed right away.
- Examine records after use if you suspect they may have been damaged or abused.
- Never allow food, drink, smoking, or pens into the reference area. Accidents can happen that will damage the material. The archives may have to provide pencils for researchers to work with and not expect them to be returned.





## Supplies and Suppliers

Preventive conservation requires dedication on the part of the staff in doing the basic things that don't cost money; but long-term preservation requires a financial commitment and should be part of the archives' budget.

Monitoring equipment such as thermometers and hygrometers can be obtained at hardware stores at reasonable prices.

Thermohygrometers can be borrowed from:

Canadian Conservation Institute  
1030 Innes Road  
Ottawa, Ontario  
K1A 0C8

Archival quality supplies such as boxes, containers, folders, envelopes, paper for book tags, and protective wrappings can be obtained from the following sources. This is not an endorsement. Prices and quality should always be compared.

Carr McLean  
461 Horner Avenue  
Toronto, Ontario  
M8W 4X2  
1-800-268-2123

Envimaco International Incorporated  
2200 Victoria St.  
Lachine, Quebec  
H8S 1Z3  
1-800-611-4625

Woolfitt's Art Enterprises Inc.  
1153 Queen St. West  
Toronto, Ontario  
M6J 1S4  
1-800-490-3567

The Royal Ontario Museum and Woolfitt's Art Enterprises run a semi-annual bulk purchase program for conservation and archival supplies. Woolfitt's are distributors for Gaylord Archival Storage Materials, Conservation Supplies and Library Supplies. Archives can order the amount of supplies they need without worrying about a minimum order, and yet they get the benefit of bulk prices because their orders are put in with other participants. For more information, contact:

Royal Ontario Museum  
Outreach Services  
100 Queen's Park  
Toronto, Ontario  
M5S 2C6.

## Bibliography

*Archival Enclosures: A Guide.* Edward Kulka. Ottawa: Canadian Council of Archives, 1995.

*Basic Conservation of Archival Materials: A Guide.* Ottawa: Canadian Council of Archives, 1990.

*CCI Notes.* Ottawa: Canadian Conservation Institute.

2/5 - Using a camera to measure light, 1983.

3/1 - Examining for insect infestation, 1986.

8/1 - Removing mould from leather, 1993.

11/2 - Storing works on paper, 1995.

11/7 - Basic care of books, 1995.

16/2 - Care of black and white photographic glass plate negatives, 1995.

16/3 - Care of black and white photographic negatives on film, 1986.

16/4 - Care of black and white photographic prints, 1986.

16/5 - Care of colour photographic materials, 1986.

*Conservation Environment: Guidelines for Libraries and Archives.* William P. Lull and Paul N. Banks. Ottawa: Canadian Council of Archives, 1995.

*Implementing Preservation Management: A How-To Manual for Archives.* Nancy Marrelli. Montreal: Réseau des archives du Québec, 1996.

*The Life of a Document - A Global Approach to Archives and Records Management.* Carol Couture and Jean-Yves Rousseau. Translated by David Homel. Montreal: Vehicule Press, 1987.

*A Manual for Small Archives/Small Archives Committee.* Laura M. Coles. Vancouver: Archives Association of British Columbia, 1988, 1994.

## Anglican Church of Canada—Anglican Archives Network

### Conservation Policy Survey

The following survey was designed to gather information about archives in the Anglican network, in order to identify areas of concern under the topics covered by the manual and from direct recommendation by each individual archives.

#### INSTITUTIONAL PROFILE

Name of the Archives: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Contact Person: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone #: \_\_\_\_\_

FAX #: \_\_\_\_\_

E-mail: \_\_\_\_\_

When was the Archives established? \_\_\_\_\_

\_\_\_\_\_

Does the Archives have a canon or basic policy statement? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Does the Archives have a "mission" or goals and objective statement? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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What hours does the Archivist work? \_\_\_\_\_

\_\_\_\_\_

What days and hours of the week is the Archives open for research?

\_\_\_\_\_

\_\_\_\_\_

Is the Archives closed at any time during the year? If yes, when?

\_\_\_\_\_

\_\_\_\_\_

**Budget**

What is the annual operating budget of the Archives?

\_\_\_\_\_ Under \$10,000

\_\_\_\_\_ \$10,000 to \$29,999

\_\_\_\_\_ \$30,000 to \$59,999

\_\_\_\_\_ \$60,000 to \$74,999

\_\_\_\_\_ \$75,000 to \$100,000

\_\_\_\_\_ Over \$100,000

What amount (in \$) of the Archives' (or governing institution's) annual operating budget is regularly expended on the conservation of holdings?

\_\_\_\_\_

\_\_\_\_\_

Please describe how the conservation expenditure was distributed last year.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Does the Archives utilize the Canadian Council of Archives conservation grants? If yes, for what?

\_\_\_\_\_ Supplies    \_\_\_\_\_ Feasibility study    \_\_\_\_\_ Hands-on work

What other grants does the Archives utilize?

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What other sources of funding are available to the Archives? \_\_\_\_\_

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Do you have a deposit agreement for your records? If you do, with whom?

Contact person: \_\_\_\_\_

**Staff**

How many staff are employed by the Archives?

- \_\_\_\_\_ Full-time, paid \_\_\_\_\_ hrs/week
- \_\_\_\_\_ Part-time, paid \_\_\_\_\_ hrs/week
- \_\_\_\_\_ Full-time, volunteer \_\_\_\_\_ hrs/wk
- \_\_\_\_\_ Part-time, volunteer \_\_\_\_\_ hrs/wk

Which activities and functions are performed in the Archives?

- \_\_\_\_\_ Administration
- \_\_\_\_\_ Appraisal and acquisition
- \_\_\_\_\_ Conservation/preservation
- \_\_\_\_\_ Access
- \_\_\_\_\_ Arrangement and description

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- Records management
- Reformatting
- Building maintenance/housekeeping
- Visitor education
- Exhibition preparation
- Disaster management
- Security

Other \_\_\_\_\_

Has training been provided for staff in the past five years in the following areas?

	Yes	No	In-depth	As needed
General preservation activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acquisition and appraisal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Processing of records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Labelling/handling records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pest identification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Preparing records for storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
General housekeeping and cleaning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disaster response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchasing of storage supplies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recognizing damaged records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**POLICIES, PROCEDURES, AND PROGRAMS**

Does the Archives have policies or procedural guidelines for any of the following activities?

- |                                |           |          |
|--------------------------------|-----------|----------|
| Acquisition                    | _____ Yes | _____ No |
| Conservation                   | _____ Yes | _____ No |
| Exhibition/loans               | _____ Yes | _____ No |
| Disaster management            | _____ Yes | _____ No |
| Staff training and development | _____ Yes | _____ No |
| Security                       | _____ Yes | _____ No |
| Pest control                   | _____ Yes | _____ No |
| Other _____                    | _____ Yes | _____ No |

Are there procedures or guidelines governing any of the following activities?

- |                                 |           |          |
|---------------------------------|-----------|----------|
| Handling of holdings in storage | _____ Yes | _____ No |
| Activities permitted in storage | _____ Yes | _____ No |
| Reading room protocol           | _____ Yes | _____ No |
| Security                        | _____ Yes | _____ No |
| Duplication                     | _____ Yes | _____ No |
| Reformatting                    | _____ Yes | _____ No |
| Access                          | _____ Yes | _____ No |
| Physical transfer               | _____ Yes | _____ No |
| Transfer of ownership           | _____ Yes | _____ No |
| Choice of storage enclosure     | _____ Yes | _____ No |
| Choice of storage area          | _____ Yes | _____ No |
| Storage of oversize items       | _____ Yes | _____ No |
| Environmental conditions        | _____ Yes | _____ No |
| Conservation treatments         | _____ Yes | _____ No |



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Marking records  Yes  No

Other \_\_\_\_\_  Yes  No

What written procedures does the Archives have?

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Does the Archives staff regularly refer to procedures in Archives manuals? If yes, please list manual titles: \_\_\_\_\_

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Does the Archives have a long-range preservation plan?

Attach document. \_\_\_\_\_

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Who (1) develops, (2) approves, and (3) implements long-range plans for holdings care?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Does the Archives have a conservation program for the long-term preservation of unstable original records? If yes, please specify the method used.

Microfilm  Preservation photocopying

Photographic reproduction

Other \_\_\_\_\_

How are records chosen for microfilming? \_\_\_\_\_

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Does the Archives have any specialized technical facilities?

\_\_\_\_\_ Conservation lab      \_\_\_\_\_ Photographic lab

\_\_\_\_\_ Microfilming lab      \_\_\_\_\_ A/V lab

Other \_\_\_\_\_

### BUILDING AND ENVIRONMENTAL FACILITIES

Who owns the building(s) and site(s) in which the Archives and its records are housed? \_\_\_\_\_

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If the Archives does not occupy the entire building in which it is located, what other functions are carried out in the building?

\_\_\_\_\_ Administration      \_\_\_\_\_ Education

\_\_\_\_\_ Religious      \_\_\_\_\_ Entertainment

\_\_\_\_\_ Retail sales      \_\_\_\_\_ Food service

Other \_\_\_\_\_

If the Archives is not the sole occupant of the building, please identify the total area (in square metres) within the building that it occupies. \_\_\_\_\_

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Does the Archives utilize an attic or basement space? If yes, please explain how it is used. \_\_\_\_\_

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Is there a history of recurring problems in the building? (Please check all that apply.)

- |  |  |
|--|--|
| <input type="checkbox"/> Basement flooding     | <input type="checkbox"/> Wet basement          |
| <input type="checkbox"/> Roof leaks            | <input type="checkbox"/> Mildew                |
| <input type="checkbox"/> Window condensation   | <input type="checkbox"/> Wall condensation     |
| <input type="checkbox"/> Pests                 | <input type="checkbox"/> Stained walls         |
| <input type="checkbox"/> Stained ceilings      | <input type="checkbox"/> Electrical            |
| <input type="checkbox"/> Blown fuses           | <input type="checkbox"/> Cold water pipe       |
| <input type="checkbox"/> Condensation          | <input type="checkbox"/> Structural – exterior |
| <input type="checkbox"/> Structural – interior |  |

Other \_\_\_\_\_

### Storage Environment - Systems and Equipment

Is the Archives serviced by a centralized heating ventilating and air-conditioning (HVAC) system, either its own or that of the building? \_\_\_\_\_

Does the current heating, ventilation, and/or air-conditioning systems and equipment run 24 hours/day and seven days/week? If not, please explain when the system is operational. \_\_\_\_\_

Is this system in effect throughout the entire building or just in selected areas, such as storage rooms? \_\_\_\_\_

Does the Archives have any control over the settings of the HVAC system? If yes, in what areas?

- |  |  |
|--|--|
| <input type="checkbox"/> Exhibition area | <input type="checkbox"/> Processing area |
| <input type="checkbox"/> Storage area    | <input type="checkbox"/> Reading room    |

Other \_\_\_\_\_

What temperature and relative humidity is the system set at and does it maintain those levels? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Are levels of temperature and relative humidity monitored? How? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Who calibrates the monitoring equipment and how often? Please attach a sample of your results. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Air Quality**

If your building has a central HVAC system, please describe:

Type of filter \_\_\_\_\_  
\_\_\_\_\_ Dust      \_\_\_\_\_ Gaseous pollutants  
Other \_\_\_\_\_

If there is no central HVAC system or if the air is not filtered for dust and gaseous pollutants, please describe any precautions taken to protect holdings against these problems.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Is smoking allowed in the building? If yes, indicate where.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Is heavy dust visible in any of the Archives' areas? If yes, indicate where.  
\_\_\_\_\_

**Illumination**

Which of the following light sources are used in each of the following areas?

	Processing	Exhibition	Research	Storage
Natural daylight	_____	_____	_____	_____
Fluorescent light	_____	_____	_____	_____
Incandescent light	_____	_____	_____	_____
Tungsten halogen	_____	_____	_____	_____

Are there filters or controls for the ultraviolet spectrum of light? Please describe.

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When are the lights turned on?

	Processing	Exhibition	Research	Storage
24 hours a day	_____	_____	_____	_____
When people are present	_____	_____	_____	_____
During staff hours	_____	_____	_____	_____
During retrievals	_____	_____	_____	_____
Other _____	_____	_____	_____	_____

**Pest Control**

Have there been problems with any of the following pests?

	Processing	Exhibition	Research	Storage
Insects	_____	_____	_____	_____
Fungi (mould)	_____	_____	_____	_____
Rodents	_____	_____	_____	_____
Birds	_____	_____	_____	_____
Other _____	_____	_____	_____	_____

Does the Archives have a program for the prevention and control of pests? If yes, who is responsible for this program (e.g., staff, outside contractor, etc.)? \_\_\_\_\_

Are new acquisitions checked for pest infestation or mould before being brought into the Archives or placed in storage? \_\_\_\_\_

**HOLDINGS AND STORAGE**

**Holdings**

What is the nature of the records, what approximate percentage of the holdings do they form, and how many types of that record are there?

%	Media	Type of Records (check all that apply)
_____	Paper-based records, pre-1840	<input type="checkbox"/> documents <input type="checkbox"/> bindings <input type="checkbox"/> maps <input type="checkbox"/> other _____
_____	Paper-based records, post-1840	<input type="checkbox"/> documents <input type="checkbox"/> bindings <input type="checkbox"/> maps <input type="checkbox"/> other _____
_____	Photographic records	<input type="checkbox"/> prints <input type="checkbox"/> negatives <input type="checkbox"/> stereotypes <input type="checkbox"/> slides <input type="checkbox"/> film <input type="checkbox"/> other _____
_____	Machine readable records	<input type="checkbox"/> microfilm <input type="checkbox"/> sound recordings <input type="checkbox"/> video tapes <input type="checkbox"/> computer diskettes <input type="checkbox"/> other _____

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- Parchment/vellum records
- Textiles and costumes
- Artifacts and sculptures
- Artwork, paintings, etc.

What is the total volume of records holdings in linear metres? \_\_\_\_\_

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### Holdings

How many linear metres of storage space are currently available? \_\_\_\_\_

What holdings are in regular use?

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Are there any known nitrate-based negative or film records in the holdings?

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### Access

What percentage of the Archives' permanent holdings has restricted access?

Has the Archivist ever restricted access due to the physical condition of a record? \_\_\_\_\_

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What records-reading and information-processing equipment does the Archives possess?

- |  |   |
|--|---|
| <input type="checkbox"/> Microfilm reader          | <input type="checkbox"/> Microfilm reader/printer |
| <input type="checkbox"/> Photocopier               | <input type="checkbox"/> Slide projector          |
| <input type="checkbox"/> Cassette player/recorder  | <input type="checkbox"/> Reel player              |
| <input type="checkbox"/> 8 mm/16 mm film projector | <input type="checkbox"/> Copy camera              |
| <input type="checkbox"/> Computer                  |   |

Other \_\_\_\_\_

**Storage**

Do any storage areas have an outside wall? \_\_\_\_\_  
\_\_\_\_\_

Are any storage areas located in the basement or attic of a building? \_\_\_\_\_  
\_\_\_\_\_

Are storage areas used for activities other than holdings storage (e.g., photocopying, research)? If yes, please describe. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Are storage areas used for the storage of items other than archival records? If yes, please describe. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Are hazardous materials (e.g., paints, cleaners) stored in the same location as archival records? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

What types of storage furniture are in use?

- |                           |                                 |
|---------------------------|---------------------------------|
| _____ Stationary shelving | _____ Mobile (compact) shelving |
| _____ Flat map cabinet    | _____ Closed cabinet            |
| _____ Filing cabinet      |                                 |
| _____ Other               |                                 |

If metal shelving or metal storage units are used for storing magnetic media, are they grounded? \_\_\_\_\_

How much space is there between the lowest shelf of storage units and the floor? \_\_\_\_\_

Are records ever stored on the floor in storage areas, either temporarily or permanently? \_\_\_\_\_



**Enclosures**

What type of enclosures are used for the storage of paper-based records?

- Acid-free buffered file folders
- Office file folders
- Corrugated cardboard boxes
- Pressboard boxes
- Coroplast boxes
- Acid-free buffered boxes
- Polyethylene sleeves
- Unidentified plastic
- Mylar sleeves
- Acid-free buffered tissue
- Other \_\_\_\_\_

What type of enclosures are used for the storage of photographic records?

- Acid-free buffered file folders
- Mylar sleeves
- Office file folders
- Unbuffered file folders
- Unbuffered paper sleeves
- Corrugated cardboard boxes
- Acid-free buffered tissue
- Acid-free unbuffered tissue
- Acid-free unbuffered boxes
- Pressboard boxes
- Polyethylene sleeves
- Unidentified plastic
- Coroplast boxes
- Other \_\_\_\_\_

What type of enclosures are used for the storage of micrographic records?

- Acid-free buffered boxes
- Polypropylene boxes
- Coroplast boxes
- Acid-free unbuffered boxes
- Pressboard boxes
- Unplasticized inert cores
- Corrugated cardboard boxes
- Unidentified plastic boxes
- Other \_\_\_\_\_

What type of enclosures are used for the storage of audio-visual records?

- Acid-free buffered boxes
- Polypropylene boxes
- Manufacturer's cases/boxes
- Corrugated cardboard boxes
- Unidentified plastic boxes
- Coroplast boxes
- Acid-free unbuffered boxes
- Pressboard boxes
- Other \_\_\_\_\_

What type of enclosures are used for the storage of fine art?

- |   |   |
|---|---|
| <input type="checkbox"/> Acid-free buffered boxes   | <input type="checkbox"/> Corrugated cardboard boxes |
| <input type="checkbox"/> Unidentified plastic boxes | <input type="checkbox"/> Solander boxes             |
| <input type="checkbox"/> Acid-free unbuffered boxes | <input type="checkbox"/> Pressboard boxes           |
| <input type="checkbox"/> Acid-free mats             | <input type="checkbox"/> Acidic mats                |
| <input type="checkbox"/> Coroplast boxes            |   |
| <input type="checkbox"/> Other _____                |   |

What kind of enclosures or storage techniques are used for the following items?

Artifacts and sculptures

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Textiles and costumes

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Historical objects \_\_\_\_\_

---

Oversize records \_\_\_\_\_

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What type of labels and marking methods are used on the record enclosures? \_\_\_\_\_

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How are paper-based records marked and with what?

- |  |  |
|--|--|
| <input type="checkbox"/> Directly on record              | <input type="checkbox"/> On enclosure    |
| <input type="checkbox"/> Never marked                    | <input type="checkbox"/> Pencil          |
| <input type="checkbox"/> Felt-tip pen                    | <input type="checkbox"/> Embossing stamp |
| <input type="checkbox"/> Stamp pad (with commercial ink) | <input type="checkbox"/> Ballpoint pen   |
| <input type="checkbox"/> Stamp pad (with archival ink)   | <input type="checkbox"/> Sticky label    |
| <input type="checkbox"/> Other _____                     |  |

How are photographic records marked and with what?

- |  |  |
|--|--|
| <input type="checkbox"/> Directly on record              | <input type="checkbox"/> On enclosure    |
| <input type="checkbox"/> On support                      | <input type="checkbox"/> Pencil          |
| <input type="checkbox"/> Felt-tip pen                    | <input type="checkbox"/> Embossing stamp |
| <input type="checkbox"/> Stamp pad (with commercial ink) | <input type="checkbox"/> Ballpoint pen   |
| <input type="checkbox"/> Stamp pad (with archival ink)   | <input type="checkbox"/> Sticky label    |
| <input type="checkbox"/> Never marked                    |  |
| <input type="checkbox"/> Other _____                     |  |

**EXHIBITIONS AND LOANS**

Is there an area of the Archives that is used for exhibition or display? Please describe. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Does the Archives mount exhibitions that contain original records? If yes, how often are they changed? \_\_\_\_\_  
\_\_\_\_\_

Are original records loaned for off-site exhibitions or displays? \_\_\_\_\_  
\_\_\_\_\_

Are condition reports carried out before and after the loan of records? \_\_\_\_\_  
\_\_\_\_\_

Are records borrowed from other archives for exhibition? \_\_\_\_\_  
\_\_\_\_\_

Are condition reports performed when borrowed records are received or returned to their owners? \_\_\_\_\_  
\_\_\_\_\_

**DISASTER MANAGEMENT**

Does the Archives have a disaster management plan? \_\_\_\_\_  
 \_\_\_\_\_

Has the Archives experienced any disasters, large or small? \_\_\_\_\_  
 \_\_\_\_\_

Does the Archivist have access to a floor plan that identifies the location of sources of water such as pipes, toilets, sinks, air-conditioners, and HVAC systems that are beside, above, or near holdings? \_\_\_\_\_  
 \_\_\_\_\_

Are there overhead pipes in the storage area? If yes, what type?  
 \_\_\_\_\_ Water      \_\_\_\_\_ Steam      \_\_\_\_\_ Drain      \_\_\_\_\_ Fuel  
 \_\_\_\_\_ Other \_\_\_\_\_

What areas of the Archives have fire-rated doors? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Which areas of the Archives contain operational smoke/heat detectors and floor drains?

	Smoke/Heat Detectors	Floor Drains
_____ All areas	_____	_____
_____ None	_____	_____
_____ Storage areas	_____	_____
_____ Administrative areas	_____	_____
_____ Reference rooms	_____	_____
_____ Workrooms	_____	_____

Please indicate the type(s) of fire suppression system the Archives utilizes.

\_\_\_\_\_ Wet pipe sprinkler system      \_\_\_\_\_ Hand-held extinguisher  
 \_\_\_\_\_ Dry pipe sprinkler system      \_\_\_\_\_ CO2      \_\_\_\_\_ Water  
 \_\_\_\_\_ Fire hoses      \_\_\_\_\_ ABC      \_\_\_\_\_ Halon  
 \_\_\_\_\_ Halon      \_\_\_\_\_ Other \_\_\_\_\_  
 \_\_\_\_\_ Other \_\_\_\_\_

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How often are fire detection and suppression systems tested? \_\_\_\_\_  
\_\_\_\_\_

Does the Archives have an emergency lighting system? \_\_\_\_\_  
\_\_\_\_\_

Does the Archives have an emergency generator? \_\_\_\_\_  
\_\_\_\_\_

### SECURITY

Who is responsible for the security of the Archives?

- \_\_\_\_\_ Staff security guards (Archives or parent organization)
- \_\_\_\_\_ Private security guard(s)
- \_\_\_\_\_ Archives staff
- \_\_\_\_\_ Other \_\_\_\_\_

How is security provided?

- \_\_\_\_\_ Controlled access to building in which Archives is located
- \_\_\_\_\_ In-house alarm system
- \_\_\_\_\_ Alarm system linked to outside security agency or police
- \_\_\_\_\_ Video camera(s) and closed-circuit TV
- \_\_\_\_\_ Security-rated locks and hinges on doors
- \_\_\_\_\_ Key control
- \_\_\_\_\_ ID tags for staff and researchers
- \_\_\_\_\_ Sign-in register for researchers and non-staff
- \_\_\_\_\_ Positive ID requirement for researchers
- \_\_\_\_\_ Controlled access to Archives areas
- \_\_\_\_\_ Ban on briefcases/handbags in Archives areas
- \_\_\_\_\_ Supervised reference room
- \_\_\_\_\_ Other \_\_\_\_\_

Are researchers allowed to take records out of the Archives to duplicate them? \_\_\_\_\_

Is access to storage areas controlled or monitored? Please explain. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature of Archivist \_\_\_\_\_

Date Completed \_\_\_\_\_



# Taking Care

## Managing Your Heritage Environment

Laurel Parson

Do you ever despair of taking care of all that stuff — photos, paper, parish registers, minute books — that accumulates around your congregational buildings, diocesan or presbytery offices, or religious organization headquarters? Taking Care is for all of that.

From housekeeping through major disaster — flood, fire, and pest infestation — this manual will take you through the basics of archives conservation. The chapters are short, to the point, and written to encourage prevention. The goal is to aid volunteers at all levels of the church.

Taking Care is based on recent survey results from Canadian Anglican diocesan archives and reflects the practical experience of volunteers and professional staff. It also contains a handy list of additional resources and sources of supplies.



General Synod Archives  
Resources Series #1



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