CARING FOR YOUR MASONIC TREASURES
DOCUMENTS, PHOTOGRAPHS, AND BOOKS
ABOUT THE SCOTTISH RITE MASONIC MUSEUM & LIBRARY

Established in 1975 by the Scottish Rite Freemasons of the Northern Masonic Jurisdiction, the Scottish Rite Masonic Museum & Library tells the story of Freemasonry and fraternalism in the context of American history.

Unique in the nation, the Museum aims to be the “historical society” of American Freemasonry by collecting, preserving, interpreting and celebrating the history of fraternalism. We pay special attention to the history of the Scottish Rite and strive to serve the Masonic community.

The Museum’s collection related to American Freemasonry, fraternalism, and American history numbers more than 17,000 objects. The Van Gorden-Williams Library and Archives research collection comprise 60,000 books, 1,600 serial titles and 2,000 cubic feet of archival materials. The Museum also manages an additional 10,000 objects and documents from the collection of the Grand Lodge of Masons in Massachusetts under a long-term loan agreement.

Visit srmml.org to find out about current exhibitions, our collections, online resources, and ways to stay in touch and learn more.

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The Scottish Rite Masonic Museum & Library often receives calls from Masonic lodges and Valleys asking how to preserve their historic documents—charters, minute books, and certificates—as well as photographs and books. We hope this booklet will help you get started with preserving your lodge’s or Valley’s historic material. In the pages that follow, we outline various preservation techniques and explain:

- The kinds of materials you might encounter in your collection
- The ideal conditions in which to store your collections
- The types of storage enclosures (boxes, folders, etc.) to use when storing your collections
- How to contact and hire a professional conservator to repair damaged documents and books

The guidelines in this booklet will help you feel confident that you are doing what you can to help insure the long-term preservation of your lodge’s or Valley’s documents, photographs, and books.

**MATERIALS**

When you are planning to preserve your historic collections, the first thing to consider is what materials they are made of. Some materials simply last longer than others. Organic materials—ones that come from plant or animal sources—are more likely to deteriorate than inorganic materials. Other materials break down more quickly because of inherent vice, deterioration caused by agents present in the material composition of the object. One example is papers with high wood pulp content that produce acid as they degrade. The following is a description of materials and substances in paper, inks, photographs, and books and how these elements cause these items to deteriorate.
Most Masonic lodges have paper records. Paper is made of plant fibers such as cotton or flax (derived from cotton or linen rags) or wood, that have been reduced to pulp, suspended in water, and then matted into sheets. However, some lodge documents from the late 1700s, such as certificates and charters, were printed or written on animal skin, called parchment or vellum. This material is more stable and durable than paper.

Some types of paper are more chemically stable than others and therefore do not deteriorate as quickly as others. Paper from the 1700s and early 1800s is generally strong and flexible because of its cotton rag content. In the late 1800s, as papermaking became more mechanized, new processes and materials, such as wood pulp, resulted in much less expensive, but less enduring paper. Paper made with ground wood pulp produces acid—which causes paper to become brittle—and is less stable than cotton rag paper.

A typical early-twentieth century 33° Scottish Rite certificate, printed on paper. Most lodges and Masonic bodies have some type of paper-based collection.
INK

Over the years, ink has been made of different materials. Some inks are more stable than others. Carbon ink, which was often made from lampblack or soot mixed with a binding agent, does not fade due to light exposure and does not damage the paper it is used on. In contrast, iron gall ink, commonly used in the 1700s and 1800s, fades when exposed to light and, because this ink is made of iron mixed with several types of acid, can burn into paper, creating cracks or holes. Other inks bleed through the pages onto adjoining ones over time, producing smudges or shadows.

PHOTOGRAPHS

Collections of historical documents often include photographs. A photograph consists of a support, usually paper, upon which an image-bearing chemical layer, or emulsion, is applied. The photographic images are formed when the emulsion is exposed to light. The most common emulsion is gelatin. The image on most black-and-white prints is made of a fine metallic silver dust. Moisture, extremely high and low relative humidity, air pollutants, heat, dirt, and skin oils can all damage photographs.

The ink used for the 1783 Francken Manuscript was relatively stable, contributing to the long-term preservation of the earliest English-language versions of Scottish Rite rituals.
Many lodges have books that were published 100 or 200 years ago. Books are composed of many different materials including, but not limited to: paper, ink, thread, glue, cloth, and leather. As with documents, the quality of paper used in books varies greatly. Paper that is high in wood pulp content is acidic. Pages made of this paper will often turn yellow, dry out, and become brittle over time. However, a book printed on cotton rag paper can last a long time, if stored in an appropriate environment.

The 1783 Francken Manuscript was written in a ledger book composed of cotton rag paper pages bound in a leather binding.
**STORAGE CONDITIONS**

Where and how you store your Masonic lodge documents, photographs, and books can shorten or lengthen their lifespans. While you cannot control what materials objects were made from, you can often control how they are stored. This section will help you understand how light, temperature, and relative humidity can affect these collections and what you can do to make your storage environment more conducive to their long-term preservation.

**SECURITY**

To help preserve your collections, establish a secure storage area, preferably a locked room. Restrict who has access to the room. Maintain a log of who has keys to the room and establish a simple log of who goes in and out of the room and when.

**INVENTORY**

Essential to preserving your collections is knowing what you own. It is important to maintain an inventory that lists the objects, books, and documents that you own as well as where they are located. A simple way to create a storage tracking system is to assign numbers to each shelf in your storage area, and then assign a number to each container, or box, on that shelf. As you put folders or sleeves in a box or books on shelves, add each item to a list, recording the specific shelf and box number. Keeping an inventory of what your organization has and where it is located in the storage room will allow your lodge or Valley understand what treasures are in the vault.

After you have properly shelved and inventoried your collections, you will have better control over them.
**HOUSEKEEPING**

Good housekeeping helps prevent pest infestations and mold outbreak.

Here are some tips:

- Monitor your storage environment to catch any insect or mold damage early
- If food and drink are served near the storage area, clean up promptly and store leftovers properly
- Prohibit food and drink in your storage area
- Eliminate dirt and dust bunnies, which are attractive to insects, with regular and thorough vacuuming
- Regularly inspect collections that contain organic materials. Insects, such as silverfish or booklice, are attracted to the organic materials that make up your collections
- Employ sticky traps for insects in order to monitor what pests are in the space
- Keep a written log of problems and questions

This Masonic certificate from Puerto Rico shows signs of insect damage.
LIGHT

Exposure to light, even for a short time, is damaging to paper-based materials. This deterioration is cumulative and irreversible. Once a document has faded, it cannot be restored, and continued exposure to light will fade the document further. For this reason, paper-based items in your collection should not be exhibited for more than three to four months at a time. You may also want to consider displaying a copy of a document (e.g., a reproduction of a scanned document from your collection) rather than keeping an original on view. Light weakens paper, making it brittle, or it can cause the paper to bleach, yellow, or darken. Light also causes inks to fade or change color, making the documents difficult to read. It can also fade book binding. Exposure to light can discolor and fade photographs, especially color prints.

Although all types of light are damaging, ultraviolet (UV) light is especially harmful to documents, photographs, and books. Sunlight and fluorescent light emit high levels of UV radiation, so they are the most destructive. Ideally, historic documents, photographs, and books should be exposed to light only while they are being used. When not in use, they should be stored in the dark. Storing documents and other items in folders and boxes will also help protect them from light exposure. If your storage area has windows, you should cover them with drapes, shades, blinds, or shutters that block the sun. These simple changes to your storage area can help protect historic material from damage.
TEMPERATURE AND RELATIVE HUMIDITY

The optimal temperature and RH ranges for storing paper-based materials, including photographs, are 65-70°F and 30-50% RH. A combination thermometer/hygrometer that measures both temperature and relative humidity can be purchased inexpensively. Climate control equipment as simple as a room heater, an air conditioner, a humidifier, or a dehumidifier can help maintain a consistent temperature and relative humidity, slowing the deterioration of materials considerably. Buildings should be well maintained, and cracks that allow water leaks should be sealed as soon as they are noticed. Doors and windows should be weather stripped and kept closed.

Extreme temperatures and high humidity contribute significantly to the breakdown of paper and other materials. Maintaining recommended temperature and relative humidity (RH) levels in your storage area is crucial for preserving historic documents, books, and photographs. Heat greatly speeds up deterioration. Each increase in temperature of 18°F approximately doubles the rate of most harmful chemical reactions.

Relative humidity is the amount of moisture in the air relative to the temperature. High relative humidity causes chemical changes to paper. In combination with high temperature, humidity encourages mold growth and insect activity on all types of materials. Elevated RH and temperature can also soften gelatin emulsions in photographs, causing them to stick to other surfaces, such as glass. On the other hand, extremely low RH, which can occur in centrally heated buildings during the winter months, causes certain types of paper and books to become brittle. It can also cause emulsion layers on photographs to crack or peel.
Because paper and books easily absorb and release moisture, they expand and contract in response to daily and seasonal changes in temperature and humidity. These changes can accelerate deterioration, causing paper to wrinkle, ink to flake, emulsion to crack or separate from the base layers on photographs, and book covers to warp. That said, current research in the preservation field suggests that minor fluctuations do not cause as much damage to collections as extended periods of elevated temperatures do. Long periods of elevated temperatures can accelerate deterioration of materials. To track changes in temperature and relative humidity it is useful to monitor the climate in your storage room. Start a log, which can be as simple as a calendar on the wall with a pen. Encourage those using the room to record the temperature and relative humidity each time they visit. Try to keep the changes in temperature and relative humidity from exceeding +/-5° or +/-5% within a 24-hour period and work to avoid more radical temperature/RH swings.
WATER AND MOISTURE

Both insects and mold thrive in a warm, moist environment. By keeping the storage room temperature in the range of 65°-68° and the relative humidity below 60%, you will make an inhospitable home for insects or mold. Mold spores are everywhere, but they do not become active until the RH hits a certain threshold. 60% RH is an important benchmark, as it is the point above which it is generally accepted that mold will grow if conditions remain at that level for an extended period. You will observe the growth of mold by noticing a damp, musty smell, white fuzz on objects, or black growth on walls, especially in corners. The first step to controlling a mold outbreak is to air out the room with fans—stagnant air is mold’s best friend. Pay particular attention to dead air pockets, such as in corners or under shelves, where moisture can be trapped. Mold can be a health risk. To protect yourself, wear disposable nitrile gloves, a disposable Tyvek suit, goggles (without ventilation holes), and a properly fitted N-95 disposable respirator when working with moldy objects or in areas with mold. Remove collections from the area and thoroughly wipe the room, shelves, and boxes with bleach and warm water in order to control the event. Once the room is aired and dried, collections can be returned to it.

A dead air pocket of in this corner of a basement corner trapped moisture and caused black mold to grow on the walls.
STORAGE METHODS

Proper storage enclosures are another way to lengthen the life of documents and photographs. When planning storage, you should consider what materials the enclosures are made of, as well as their size and shape.

ENCLOSURES AND BOXES FOR DOCUMENTS

You should store your Masonic lodge charters and certificates in protective folders and envelopes and then store these folders and envelopes in appropriate boxes. These storage enclosures will help provide physical support for documents and provide an extra layer of protection while the items are not in use. Items should be stored in small groups, and the size and shape of each folder or envelope should match the item in it. Box lids should close completely.

Be aware that some storage enclosures purchased from craft stores or other suppliers are made of materials that may do more harm than good. Many boxes, folders, envelopes, and sleeves may be marketed as "archival." However, there is no standard for labeling items as such. Educate yourself about whether the supplies you are purchasing are actually archival quality. Below are guidelines that should help.

Archival paper and paperboard folders and boxes are recommended because they are opaque and protect documents from exposure to light. Acid-free paper, also known as archival paper, is different from paper that retains some of the acid used to break up wood fibers.
during manufacturing. Archival papers are lignin free and contain an alkaline buffer. In selecting acid-free or archival paper, look for a pH level of 7.0 or greater. Enclosures should also be acid- and lignin-free. Acid-free paper and paperboard have a neutral pH. They are made with very little added acid and a large amount of alkaline chemical that neutralizes the acids that are there. Lignin is an unstable, light sensitive component of wood pulp that breaks down into acid compounds as it ages.

Once you have all your documents in folders, place the folders into appropriate boxes. Similar items should be stored together. For example, do not store single sheets of paper or photographs in the same box as books or pamphlets. Heavy or bulky objects should be stored separately from lighter, smaller ones. The difference in bulk and weight causes uneven pressure in the boxes, and can damage the items inside.

Because acid from wood pulp paper affects any other paper it comes in direct contact with, you should separate highly acidic paper from other items. Newspaper clippings, for example, are extremely acidic and can stain or discolor historical manuscripts and books. Always remove newspaper clippings from manuscripts or books and place them in acid-free envelopes.

Do not unfold documents and manuscripts for storage unless you can do so without splitting, breaking, or damaging them. If the paper is flexible and will lie flat in a folder, you can unfold it. Otherwise, leave the document folded. Before storing historic documents, remove all fasteners, including staples, paper clips, rubber bands, and pins. Group documents in folders. Fill the folders without making them too full. If documents are fragile, place them in a folder singly or with only a few other items.

Keep the folders in acid-free, lignin-free storage boxes. All folders should conform to the size of the box. Pack the box firmly, but do not stuff. Folders should have the support of all four walls, especially the front and rear walls of the box. Boxes can be stored either flat or upright. Partially filled boxes may be laid flat. Flat storage supports the documents, prevents their edges from crumbling, and keeps the paper from becoming curved. However, flat storage causes documents in the bottom of the box to bear the weight of those above. For example, a delicate parchment Masonic charter might be crushed if it is stored in the bottom of a box full of certificates.

Documents and folders can be stored upright if they are supported by spacer boards, which are pieces of corrugated acid-free paperboard you insert into a box to take up unused space and support the documents. These spacer boards prevent documents from curving and protect their edges from damage. Finally, make sure that no folders and boxes are too large or heavy to handle safely.
ENCLOSURES AND BOXES FOR PHOTOGRAPHS

Clear sleeves are helpful for storing documents or photographs because there is less need to handle the actual documents when they are visible. Polyester is the recommended material for sleeves, although polyethylene and polypropylene can also be used for storing paper items. Before buying sleeves, read the labels on the packages carefully to be sure you know what they are made of. Avoid using plastic sleeves that contain polyvinyl chloride (PVC), which reacts with many other materials and can damage historic documents and photographs. Purchase sleeves, folders, and boxes that state that they are PAT (Photographic Activity Test) tested and approved.

Polyester is the best material for storing photographs. Brand names for polyester sleeves include Mylar and Melinex. Sleeves should be slightly larger than the photographs, should not exert pressure on them during insertion or storage, and should not distort their shape. The photographs can be stored vertically or flat, so long as there is not excessive pressure from other photographs on top. Many mounted photographs become curved over time, and flattening them can crack both the emulsion and the mount. Consult with a conservator before attempting to flatten photographs. Unmounted photographs should be stored in rigid, supportive folders or sleeves. You can insert a piece of acid-free paperboard into the sleeve, behind the photo, to provide this support.

This photograph is stored in a clear sleeve made of polyester. Identifying information can be written on the sleeve.
Once you have inserted individual photographs into polyester sleeves, they can be stored in boxes upright or flat, so long as you are providing overall support and avoiding bending. As with documents, similar-sized items should be stored together.

Lodge charters, certificates, and photographs should not be stored in frames. Remove such items from their frames and put them in individual enclosures as described above. Also remove matting, which is frequently made of acidic paper, and can accelerate the deterioration of the items it touches. If matting cannot be removed easily, then consult a conservator.

ENCLOSURES AND STORAGE FOR BOOKS

Books should be stored upright on shelves, with sturdy bookends at both ends of each shelf. Shelves should be full, but not too tight. When books lean to one side or the other, their bindings will become strained. If books are shelved too tightly, the bindings will be damaged when you remove them from the shelf. When removing a book from the shelf, grasp it by the middle of its spine,
not the top or bottom. Oversize books should be stored flat on separate shelves. Before putting books on the shelves, remove all bookmarks, newspaper clippings, pressed flowers, and other similar materials from between the pages. These items are acidic, and can damage or discolor the paper. Do not use Scotch tape to mend detached bindings. Instead use neutral pH glue or consult with a book conservator.

Fragile books may be stored in custom-made boxes designed to give them structural support and to protect them from dust, dirt, and light. These boxes should be made of acid-free, lignin-free paperboard, which will protect the books from the acid and oils in leather bindings that migrate into paper and cloth bindings of nearby books and can speed deterioration. In the case of book bindings that are falling apart (e.g. a loosened spine or a detached cover), but where conservation work or even a box is not feasible, using GripTites Cloth Pull Fasteners or unbleached cotton tying tape to hold the pieces in place can be a good quick fix.

Two types of boxes are recommended for preserving books: clamshell boxes and phase boxes. Clamshell boxes consist of a case and two trays that fit into one another. They give the most support, so you should use them for storing your most valued books. Suppliers sell some standard sizes of clamshell boxes, but to get a good fit, you often need a conservator to make this type of box. Phase boxes give less A sturdy clamshell box offers great protection for rare books.

Phase boxes, like the one pictured here, are a more affordable option to a clamshell box and you can make them yourself.
support than clamshell boxes, but are typically more affordable. They are made of two pieces of acid-free paperboard wrapped around the book. You can make these boxes yourself. (See Per Cullhead’s "A Phase Box for the Protection of Books" under Resources in the back of this booklet.)

Each box should fit well around the book inside it.
If the box is too loose, it will not give the needed support.
If the box is too tight, it can damage the edges of the book cover. Thin books or pamphlets can be stored in acid-free envelopes, or folders, which come in a variety of sizes.

**SHELVES**

Once you have your collection in folders and boxes, you can put everything on shelving in a locked storage area. The best flat files and shelving for documents and books are made of anodized aluminum or steel with various powder coatings. They should have a smooth, nonabrasive finish. Baked enamel and wood give off harmful acids and gases and should be avoided if possible, especially if your collections are not boxed. Drawers in flat files should be no more than two inches deep, because stacking items in deep drawers puts extra weight on those on the bottom. This weight causes stress on them when they are removed. Careful storage of items will protect them and make it easier to handle them safely when you need them.

If possible, shelves should not be placed directly against exterior walls. This will help you to avoid possible exposure to moisture and leaks. Never store materials below water pipes, steam pipes, restrooms, air conditioning equipment, or any other potential sources of water.

Store collections at least four inches above the floor, and avoid keeping them in basements or attics. For good ventilation, there should be at least twelve inches between any storage unit and the wall or ceiling. Avoid structural elements such as pipes or light fixtures. To help prevent leaks, have your building’s roof inspected regularly and repaired as needed. Also clean your gutters and drains frequently.

With these suggestions in hand, you can start preserving your Masonic lodge collections right away.
**Working With a Conservator**

Some items in a collection of historic documents, photographs, or books are so significant and fragile that they need conservation. Conservation treatment chemically stabilizes and physically strengthens items to lengthen their lives, often using non-original material. One example would be repairing a torn historic letter using a new piece of Japanese paper. Although conservation can be expensive, it is sometimes necessary to protect your rare and valuable documents and books. As well, conservation often improves the physical appearance of an object.

Some conservation specialists work with paper, and others work with photographs or books. You can contact a local museum, library, or the American Institute for Conservation (AIC) for referrals to professional conservators who practice in your area. They can also provide an outline of what to expect.

Written over two hundred years ago, the original minutes and Letters of Constitution of the Supreme Council, Northern Masonic Jurisdiction, shown before conservation treatment.

Professional conservators cleaned and repaired the original minutes and Letters of Constitution, aesthetically improving the document by removing stains. The treatment also helped insure its long-term preservation.
from a conservator. Be prepared to provide the conservator with information about:

- the type of problem you want solved (for example, torn paper, brittleness, fading image, or detached binding)
- how you expect to use the piece (for example, for an exhibition)
- environmental conditions such as light, temperature, and humidity in your storage area
- what type of folders, boxes, and shelving you are using
- what outcome you desire from treatment of your item (for example, repair a torn certificate, reattach the binding to a book, flatten a rolled photograph).

Once you contact a conservator, he or she will briefly examine the item and propose treatment. If you decide to proceed, the conservator may prepare an in-depth report describing the materials and structure of the item, and the location and extent of the damage to be repaired. Along with this report, he or she will provide a written treatment proposal often with different options for correcting the problem, including what each option would accomplish, how long it would take, and what it would cost. Once you agree to an option, the conservator can begin work.

After the conservator finishes treatment of the document, photograph, or book, he or she will provide you with a final report listing the techniques and materials used. It should also include images showing the condition of the piece both before and after treatment. You should keep this report in your lodge records in case the item needs additional treatment later.

**CONCLUSION**

This brochure has recommended techniques you can use to preserve your lodge’s or Valley’s documents, photographs, and books. It has also provided information on hiring a professional to conserve especially fragile or rare pieces. Prioritize your projects, keeping your budget in mind. If you have to choose, it is better to create a stable environment for most of the collection than to have a few items conserved.

If you have any questions, feel free to contact the Library and Archives of the Scottish Rite Masonic Museum & Library at (781) 457-4109 or library@srmml.org.
RESOURCES

ONLINE SOURCES FOR LEARNING MORE ABOUT PRESERVATION

Want to learn more? The resources below are a great place to continue learning about preservation.


National Archives and Records Administration. How to Preserve Family Archives (papers and photographs). https://www.archives.gov/preservation/family-archives


----. Free Resources. https://www.nedcc.org/free-resources/overview


RESOURCES FOR CONSERVATION HELP

Looking for a conservator or have questions about conservation? Here are a few places to start.

American Institute for Conservation and Foundation for Advancement in Conservation (Washington, DC) www.culturalheritage.org

----. “Find a Conservator.” https://www.culturalheritage.org/membership/find-a-conservator

Conservation Center for Art and Historic Artifacts (Philadelphia, PA) www.ccaha.org

Midwest Art Conservation Center (Minneapolis, MN) www.preserveart.org

Northeast Document Conservation Center (Andover, MA) www.nedcc.org

SUPPLIERS OF ARCHIVAL MATERIALS

Below is a list of a few companies that supply products for archival storage.

Gaylord Archival www.gaylord.com

University Products www.universityproducts.com

Hollinger Metal Edge www.hollingermetaledge.com

TALAS www.talasonline.com