

# CARE AND PRESERVATION OF YOUR SCHOOL'S TREASURES

To help ensure that your school's treasures will be around for future generations, follow basic guidelines for care, handling, displaying, cleaning, and storing. Providing a safe environment that is clean, cool, dark, dry, and stable will maximize the life span of your cherished archival materials.

There are a variety of factors that contribute to the degradation of archival materials: careless handling; poor environment; inappropriate storage, display, or framing; and improper cleaning and/or conservation.

Information has been gathered from several sources to provide some general guidelines on how to protect your treasures. As always, please consult a professional conservator if you have questions and concerns, and always use reputable archival-quality products.

## HANDLING

Careless handling is by far the most prevalent cause of damage to archival materials. It can lead to tears, wear, loss of the image, creases, and staining. Never eat, smoke, or drink in the vicinity of archives. The following guidelines can assist in the prevention of damage that can occur during handling.

Wear clean white cotton gloves when handling a book, textile, artwork, or document. Salts and oils from hands can cause staining and transfer dirt to surfaces. Replace soiled gloves immediately to prevent abrading or wearing on delicate surfaces. If gloves are not available, wash and dry hands frequently when handling an archive; do not wear hand lotion. Watches or jewelry should be removed before handling items. Work spaces and table tops should be neat and dirt-free. Place fragile items on a padded worktable covered with cotton sheeting.

Use only No. 2 (or softer) pencils when working on, or around, archival materials. Pens and markers can cause staining or may bleed through to the other side.

Paper clips, binder clips, glue, rubber bands, and adhesives should not be used on archival materials. Metallic clips can corrode and leave rust stains on paper, parchment, and fabric. Pressure-sensitive tapes and self-stick removable notes can damage the media or paper surfaces.

Extensive photocopying of books and documents should be avoided; it can lead to fading. The compression of books during photocopying can also break the binding and spine of the book.

Support items from below when moving them. Slide a piece of stiff paper or mat board underneath the art, document, etc. so that the mat board (not the archival item) is handled. Do not lift a piece of paper by its edges, especially if tears are pres-

ent. Stacked paper objects should never be dragged or slid across each other. This can cause abrasion or smudging of their surfaces. Lift them up one at a time. Books should be grasped by both sides, not by the upper edge of the book (endcap). If not, you could damage the binding. If the sides of the book are not readily accessible (as with books that are stored on book shelves), the book should be gently nudged forward on the shelf from the back so that it can be fully grasped with one hand.

## **ENVIRONMENT**

The overall environmental conditions under which archival materials are stored and displayed can have a great effect upon their longevity. Factors that can lead to damage include: pollution, pests, inappropriate or extreme temperatures, relative humidity, and high light levels. Do not store items in a basement or attic or near water sources such as bathrooms, water heaters, or washing machines. Think about what is in the room above your valued treasures.

### **Pollution**

Air filtration is the most effective way to minimize damage due to pollution. If air filtration is not feasible, then proper storage can help to prolong the life of works of archival materials. Measures should also be taken to eliminate storage or display near materials that emit hazardous gases. Unfortunately, for composite objects such as books, incompatible materials such as leather and paper cannot be separated.

### **Pest Prevention**

There are a variety of insects that can damage paper and leather artifacts; primarily, silverfish, firebrats, carpet beetles, and the book louse. In general good housekeeping is the best method of deterrence. Regular inspections of stored collections provide the cheapest and safest method of safeguarding against infestation. Screening on windows and doors will aid in keeping out larger pests. In addition, fresh flowers and plants should be inspected before being placed in the vicinity of your archival materials. When infestations are suspected, sticky insect traps can be placed under cabinets and cupboards. These traps do not poison insects; they aid in assessing the numbers and types of insects that are present. In general, insecticides should not be used on or in the vicinity of archival materials. Insecticides can cause fading and discoloration of paper, leather, and parchment. If you find an infested item, place it in a sealed plastic bag and contact a professional immediately.

### **Temperature and Relative Humidity**

Ideally, cool storage is desirable for archival materials. Fluctuations and extremes in temperature and humidity levels can have a detrimental effect upon the preservation of archival materials. Try to keep the temperature at one level 24 hours a day, 365 days a year; don't change settings for nights or weekends. It is recommended that the temperature be 67 degrees and the humidity level be kept at 47 percent. Keep objects away from heat sources such as furnace vents, fireplaces, warm lights, and direct sunlight.

## Light

Light causes fading and other damage. Do not put valuable books, artwork, documents, etc. where they will get direct sunlight or bright light of any kind. Ultra Violet (UV) filtering for windows and frames can significantly reduce the damaging effects of UV light. Both fluorescent lamps and daylight may contain high levels of ultraviolet light.

## STORAGE, DISPLAY, AND FRAMING

If possible, display a copy and safely store the original document. Never laminate your treasured document. The proper supplies and appropriate storage and display of archival materials are essential to help minimize factors that can lead to degradation. As always, your organization should have a disaster preparedness plan in place.

Avoid displaying documents and books in the vicinity of fireplaces or air ducts; dirt and soot can be deposited onto the paper surface. Avoid the display of framed documents on exterior walls; it can lead to damage resulting from moisture condensation on the back of the document. All storage boxes, paper folders, and tissue paper should be acid-free, lignin-free, and have a neutral pH. It is important to use archival-quality materials; for example, standard office manila folders are a source of acids and envelopes can cause damage. If you cannot find buffered folders, use a sheet of buffered paper at the front and back of the folder. Routine inspection and cleaning of boxes and folders will aid in extending the life of collections. Where possible, use folders or folded sheets of paper instead of fasteners to keep groups of records together. Before storing, remove extraneous materials: paper clips, rubber bands, wrapping material, notes, old folders, or any other material that is not pertinent or that may cause damage. Always select a supplier who specializes in products for archival use.

## Labeling

If it is necessary to place identifying information on an object itself (e.g., a paper document), use a no. 2 pencil and write on the verso or in the lower right margin. Never apply labels directly to documents or works of art; use labels for boxes, folders, and other enclosures. To label storage folders, envelopes, etc. use a pencil or type the label. Never use a pen; it might stain or bleed. Textiles identification should be placed on the container to avoid unnecessary handling. Sew-on tapes of cotton twill can generally be used safely. For ease of identification, location, and browsing, label boxes with enough pertinent information regarding their contents.

## Paper Documents

Unfold and flatten papers wherever possible without causing damage, and remove letters from envelopes. Encapsulate documents within an archival-quality clear plastic envelope/sleeve to protect documents from dirt, dust, and tearing. This also allows for viewing of both sides of the document. For large or odd size documents, sheets of the same clear plastic can be adhered along the edges using double sided tape. Care should be taken to make sure that the tape does not come in contact with the document. Place encapsulated documents into acid-free boxes or folders

for long term storage. Items that are not handled often can be placed in folders and boxes. Severely degraded paper should be stored in buffered boxes that contain an alkaline reserve. Alkaline reserve buffers are chemicals that absorb acids that are generated by the degraded paper.

## **Parchment Documents**

Parchment documents should be stored in unbuffered acid-free folders or boxes. The use of clear plastic folders is not recommended for parchment.

## **Newsprint and Faxes**

Isolate newspaper clippings from other documents because newsprint is highly acidic and will stain adjacent paper. Fax copies are also unstable. Replace these items with photocopies on alkaline paper or place in a separate envelope.

## **Books**

Bookshelves are the most common method of storing books. Pack books loosely on shelves to minimize damage caused by overcrowding. Book ends can provide even support. Large books should be stored flat on shelving units. Rare and fragile books should be placed into individual protective enclosures.

## **Artwork**

Use a museum-quality mat and frame to display any valuable artwork or photo. In general, good housekeeping is essential to the preservation of artworks on paper. Regarding storage, acid that is generated by poor quality wood-based cardboard boxes and folders can cause the degradation of artworks stored within them. Artwork should be stored flat, if at all possible. Some drawings and paintings on paper, blueprints, and some photos may be damaged by chemicals used as buffers. These should be stored in neutral, unbuffered, low-lignin enclosures if paper is used.

## **Fabrics**

Textiles are fragile and easily damaged by insects, mold, handling, and exposure to light, heat, and humidity. Light is particularly damaging because it causes fading and deterioration. Work on a clean, flat surface. Small, flat textiles can be moved on acid-free cardboard or placed in archival boxes. Larger, rolled textiles should be moved on their tubes. When selecting a paper-based storage material, you must understand the types of fibers in your collection. Cellulose fibers (cotton, flax, jute, ramie, and rayon) can be stored in either buffered or unbuffered paper products. Proteinaceous fibers (silk and wool) are sensitive to alkalis and cannot be stored in alkaline-buffered products. If you are unsure of your fabric, or if there are mixed fibers (e.g., a linen sampler with silk thread), use unbuffered materials.

## **Photographs**

You may want to obtain good quality copies of your unique or valuable photos for display. Black-and-white photographs last longer; video, color slide, and most color prints have a limited life-expectancy. Always handle prints along the edges, preferably wearing white cotton gloves. Remember to keep all information from the old prints, storage materials, negatives, etc. Do not attempt to remove dry mounted or

glued photos; you may damage them; place the entire page in a folder or a plastic sleeve. It is best not to attempt any repairs; make a copy print and store the damaged original.

## **Matting and Framing**

Archival documents can be framed for display. The use of high quality, acid-free, lignin-free mat board is recommended. In general, paper objects should be framed using a window mat. They provide space between the surface of the artwork and the glass of the frame to prevent the work of art from becoming stuck to the glass surface. The document should be attached to the mat board using only acid-free paper hinges and high-quality adhesives. Staining can be caused by contact with acidic or other non-archival-quality materials, such as tape or rubber cement. The recommended adhesives for hinging paper are wheat starch paste, methyl cellulose, and ready-made paper framing/hinging tape. The use of UV filtering glass and Plexiglass in frames can help to reduce damage from UV light.

## **REPAIR AND CLEANING**

Aside from obscuring text, dirt can attract moisture, mold spores, and pollution. Dirt also has an abrasive quality that weakens the structure of leather and paper. In general, the cleaning and repair of paper materials should be carried out by a professional conservator. If you wish to carry out some surface cleaning, the following procedures should be followed.

### **Surface Cleaning**

Paper and parchment documents can be lightly dusted with a soft brush to remove surface dirt. Prior to dusting, the art should be inspected carefully to ensure that there is no loose or powdery media or surface that could be brushed away during cleaning. Any additional cleaning of parchment should be carried out by a professional conservator. If brushing does not remove sufficient surface dirt on paper, dry eraser pads can be used. This method of cleaning should only be used for stable images. Care should be taken to clean only the areas around the media, not the media itself. Always proceed with caution when cleaning. Over-cleaning can cause more damage than the dirt itself. Extensive wet or solvent cleaning should only be carried out by a professional conservator.

### **Books**

The covers and edges of books can be brushed to remove surface dirt. An alternate method of cleaning is the use of a low-suction portable vacuum. A soft brush attachment and nylon screen should be attached over the end of the nozzle to catch loose fragments that could be vacuumed up during cleaning. All fragments should be saved since they can be reattached during future conservation work.

### **Mold Removal**

Archival materials that have been stored in damp environments are highly susceptible to damage by mold growth. If mold growth has occurred, the mold must be removed before it can cause permanent staining or contamination of other objects. The safest method of mold removal for paper items is the use of a brush and a small low-suction vacuum cleaner. Mold spores can spread through the air and must be

contained. The Canadian Conservation Institute has devised an inexpensive method of making a vacuum that traps mold in a glass vial containing water. If a vacuum cannot be constructed, an alternative method is to brush the mold off the surface of the paper. This must be carried out in an area where other paper and objects will not become contaminated. During the summer, this work could be done outdoors. Frequent cleaning of brushes is essential.

## **Textiles**

Soil damages fabric and provides nutrients for insects and mold. Modern garments should be cleaned immediately after wearing; soil and stains are more difficult to remove as they age. When dry cleaning, request fresh or filtered solvent. For older, historic textiles, washing and dry cleaning should be done under the direction of a conservator. Removing dust is vital. All but very fragile textiles can be safely vacuumed. Lay the textile on a support sheet, and cover with a clean fiberglass window screen. Use a hand-held, low-power vacuum over the covered textile. Never vacuum the textile directly.

## **RESOURCES**

Additional preservation information is available at:

*American Institute for Conservation of Historic and Artistic Works, Stanford University:*

<http://aic.stanford.edu>

<http://sul-server-2.stanford.edu/bytopic/genpub/>

*Conservation OnLine:* <http://palimpsest.stanford.edu/>

*The Council for Museums, Archives and Libraries:* [www.resource.gov.uk](http://www.resource.gov.uk)

*The Henry Ford Museum:* [www.TheHenryFord.org](http://www.TheHenryFord.org);

[www.hfmgv.org/explore/artifacts/archival.asp](http://www.hfmgv.org/explore/artifacts/archival.asp)

*Gaylord:* [www.gaylord.com](http://www.gaylord.com)

*The Getty Conservation Institute:* <http://www.getty.edu/conservation/institute/>

*Iowa Conservation and Preservation Consortium:*

<http://web.grinnell.edu/individuals/stuhrr/icpc/icpc.html>

*Kodak, Film Storage Information:*

[www.kodak.com/country/US/en/motion/support/technical/storage1.shtml](http://www.kodak.com/country/US/en/motion/support/technical/storage1.shtml)

*The Library of Congress, Preservation:* [www.loc.gov/preserv/](http://www.loc.gov/preserv/)

*National Institute for Conservation, Heritage Preservation:* [www.heritagepreservation.org](http://www.heritagepreservation.org)

*Northeast Document Conservation Center:* [www.nedcc.org](http://www.nedcc.org)

*Regional Alliance for Preservation:* <http://www.rafp-arcc.org/>

*Smithsonian Institute for Materials Research and Education:*

[www.si.edu/scmre/takingcare/guidelines.htm](http://www.si.edu/scmre/takingcare/guidelines.htm)

*State Preservation Board:* [www.tspb.state.tx.us/](http://www.tspb.state.tx.us/)

*Texas Historical Commission:* [www.thc.state.tx.us/](http://www.thc.state.tx.us/)

*Texas State Library and Archives Commission:* [www.tsl.state.tx.us/](http://www.tsl.state.tx.us/)

*The University of Texas at Austin, School of Information:*

<http://sentra.ischool.utexas.edu/programs/pcs/>

*U.S. National Archives and Records Administration, Preservation:*

[www.archives.gov/preservation/](http://www.archives.gov/preservation/)



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