



# Conserve O Gram

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## How To Care For Bound Archival Materials

Many archival and manuscript collections include bound volumes, such as albums, scrapbooks, ledgers, journals, notebooks, diaries, and published or rare books. This *Conserve O Gram* provides general guidelines for caring for these materials.

To Preserve Your Archival Bound Volumes You Must Do This.....	Don't Do This...
<p><b>Environment</b></p> <ul style="list-style-type: none"> <li>• House books in a space with a stable, low relative humidity (e.g., 45% RH <math>\pm</math>2%) and temperature (e.g., 20°C [68°F] <math>\pm</math>2°).</li> <li>• Shield windows and lights with ultraviolet filters.</li> <li>• Check annually the effectiveness of filtering material and replace when necessary.</li> <li>• Ensure space is clean, free of food, beverages, and pests.</li> <li>• Establish an Integrated Pest Management Program.</li> </ul>	<ul style="list-style-type: none"> <li>• Don't allow temperature and humidity to fluctuate widely.</li> </ul>
<p><b>Storage</b></p> <ul style="list-style-type: none"> <li>• House books in good condition by size and type so that large books do not warp over small ones.</li> <li>• Use full size, weight-bearing book ends.</li> <li>• Wrap books in historic house libraries in polyester four-flap enclosures to provide protection from red rot.</li> <li>• House rare, valuable, damaged, or weak books in acid-free, lignin-free, archival custom-fitted boxes.</li> <li>• Store oversize, fragile, or heavy books flat in weight-bearing acid-free boxes on shallow shelves.</li> <li>• Box damaged books in neutral pH book boxes fitted to their size until they can be evaluated by a conservator. If this is not possible, wrap books in labeled neutral pH light-weight archival board using wide (¼"-½") cotton twill tape to hold the package together. Label all boxes or wrapped books.</li> <li>• Wrap books with powdery or flaking leather or loose pieces in neutral pH paper and tie them until they can be boxed.</li> <li>• House boxed books that are not oversize, fragile, or heavy, upright on their bottom edge on the shelving.</li> <li>• Label all boxed or wrapped volumes with the collection title, accession/catalog numbers, original box number, book title, author, and condition.</li> <li>• Store boxed books on fused powder-coated steel shelves, instead of on wood shelves.</li> <li>• Include these collections in your Emergency Operation Plan.</li> </ul>	<ul style="list-style-type: none"> <li>• Don't shelve books spine-side up.</li> <li>• Don't house books together tightly on a shelf.</li> <li>• Don't house books of different sizes next to each other on a shelf without protection.</li> <li>• Don't house books with powdering leather bindings next to books with cloth, board, or paper bindings.</li> <li>• Don't use small bookends unless you place a full-size sheet of buffered board between the bookend and the book to avoid indenting or embossing the book.</li> <li>• Don't use slipcases for books if they will abrade the covers and edges of the book.</li> <li>• Don't stack books on the shelves unless they are housed in weight-bearing boxes.</li> </ul>

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<p><b>Storage</b> (continued)</p> <p><b>Cold Storage</b></p> <ul style="list-style-type: none"> <li>• Place deteriorating rare bound volumes in a polyethylene bag before placing the book in cold storage. This action protects from condensation.</li> <li>• Place a piece of conditioned neutral pH board behind the book to support it and to help absorb moisture, then place a moisture indicator label on the board to monitor humidity inside the bag.</li> </ul> <p><b>Storing Oversize Volumes</b></p> <ul style="list-style-type: none"> <li>• Store oversize volumes flat because their weight may damage the bindings if housed upright.</li> <li>• House these items if possible in labeled custom-made weight-bearing boxes or archival print boxes on book shelves.</li> <li>• House oversize volumes, alternatively, in labeled archival wrappings on shallow shelves or in mapcase drawers.</li> </ul> <p><b>Storing Undersize Volumes</b></p> <ul style="list-style-type: none"> <li>• House small volumes spine down in standard archival folders within archival boxes, within labeled custom-made support boxes, or vertically upright in archival boxes with no leaning.</li> <li>• Use acid-free wedges if necessary to hold books upright.</li> <li>• Place a separation sheet in the original location of the volume if you use customized boxes, then place the boxed book in a special storage area, such as a mapcase.</li> <li>• Use separation sheets for undersize items to provide better security; the item will then have to be specially requested before viewing.</li> </ul>	<ul style="list-style-type: none"> <li>• Don't stack books in cold storage, unless they are housed in weight-bearing boxes.</li> <li>• Don't stack or box books so as to place pressure on their bindings.</li> <li>• Don't place oversize materials where they project into aisles or sit directly on floors.</li> <li>• Don't place oversize materials on the top shelf because they may be dropped due to their weight.</li> <li>• Don't assume that undersize books fit easily in archival storage boxes in a standard collection. You may need to replace them with a separation sheet and house them separately.</li> <li>• Don't allow books to slump or bend within storage containers.</li> </ul>
<p><b>Interleaving</b></p> <ul style="list-style-type: none"> <li>• Use pH-neutral, lignin-free, high-alpha cellulose (&gt;87%) slip sheets <i>only</i> where interleaving is essential, for example:             <ul style="list-style-type: none"> <li>-where platinum prints are producing ghost images on facing pages</li> <li>-where retouched, friable, or highly acidic media (for example, iron gall ink) are damaging facing pages</li> </ul> </li> <li>• Produce a reformatted copy of the book (see <i>Reformatting</i> below) instead of interleaving all pages of an acidic or mixed-media volume (album or scrapbook).</li> <li>• Replace historical inserts, such as pressed flowers, with separation sheets or slips <i>if</i> removed from a book. Place removed items in labeled archival albums and ensure that they are identified so as to maintain the link between the original book and the removed item.</li> </ul>	<ul style="list-style-type: none"> <li>• Don't use interleaving materials and slip sheets excessively, particularly in rare books, albums, and scrapbooks, because they place pressure on the book binding.</li> <li>• Don't automatically remove historical enclosures.</li> </ul>

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<p><b>Handling</b></p> <ul style="list-style-type: none"> <li>• Limit handling of fragile or rare materials by providing copies for reference and duplication.</li> <li>• Set up handling and access policies and procedures.</li> <li>• Wear clean white cotton gloves when handling rare books, books with photographs, or books with flaking or powdering leather.</li> <li>• Remove a book from the shelf by pushing back the books on either side (or pushing the book forward from behind) and grasping the cover, not the top, of the spine (headcap or headpiece). Grasping the top can detach the spine from the book.</li> <li>• Move books to researchers on book carts, not by hand.</li> <li>• Use book cradles, preferably cushioned, to support weak, fragile, rare, oversize, or tightly-bound books for viewing or exhibit.</li> <li>• Use book supports, such as alkaline board or padded wedges, to prepare volumes for use.</li> <li>• Remove horizontally-housed books or book boxes one-by-one from a stack until the desired item is reached instead of pulling it out from the pile.</li> <li>• Protect a rare book with deteriorating leather covers by wrapping the book in pH-neutral paper; wrapping and then tying it up with wide cotton twill tape (see <i>Storage</i> above); or using a polyester film book jacket or band. See <i>NPS Museum Handbook</i>, Part I, Appendix S, Curatorial Care of Objects Made from Leather and Skin Products.</li> </ul>	<ul style="list-style-type: none"> <li>• Don't allow use of extremely fragile, brittle, or self-destructing volumes.</li> <li>• Don't use pressure to fully open a book if it doesn't open readily or you may crack the spine.</li> <li>• Don't place tightly bound books on xerographic copiers or photographic copy stands and force the books flat. This may destroy the binding.</li> <li>• Don't allow tracing from book pages.</li> <li>• Don't allow researchers to eat, drink, smoke, chew, use pens or magic markers, or other potentially damaging materials around books.</li> <li>• Don't leave books with torn or ripped tops, loose spines, red rot, or other damage unprotected on the shelves.</li> <li>• Don't throw out any portion of a book when it becomes detached.</li> <li>• Don't apply oil, saddlesoap, lanolin, or other leather dressings to leather or skin on books. See <i>Conserve O Gram</i> 9/1, <i>Leather Dressing: To Dress or Not to Dress</i>.</li> <li>• Don't use spray or gel treatments for dust removal or preservation on cloth, board, or paper volumes.</li> </ul>
<p><b>Reformatting</b></p> <ul style="list-style-type: none"> <li>• Reformat or copy a volume to provide access to the information of a book, while the original is protected and preserved.</li> <li>• Make copies by using a customized preservation xerographic copy machine, by microfilming the book, by photographing the book, or by digitizing the book for access and producing acid-free printouts or computer output microfilm copies for preservation.</li> <li>• Keep the copies in the same sequence as the original volume to maintain the semblance of the original.</li> <li>• Send the citation of a microfilm copy of a unique item to the <i>International Registry of Microfilm Masters</i> for inclusion.</li> </ul>	<ul style="list-style-type: none"> <li>• Don't make copies of items unless they are unique because it may be cheaper to buy another copy of a standard publication when it self-destructs.</li> <li>• Don't xerographically (photocopy) copy damaged books on regular copy machines.</li> </ul>

To Preserve Your Archival Bound Volumes You Must Do This.....	Don't Do This...
<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Discourage theft by registering and monitoring researchers.</li> <li>• Identify your bound volumes by cataloging them. This will make replevin (the legal return of stolen items) easier.</li> <li>• Use a #2 graphite pencil to mark volumes on the reverse of their title page with park name and catalog number.</li> <li>• Watch for volumes that have page stubs (plates stolen).</li> <li>• Check researcher registration records to see who has used the volumes most recently and report losses to the police.</li> <li>• Use separation sheets and secure storage for small volumes in an archival collection.</li> <li>• Remember that undersize books, such as artist handmade books, photo albums, field notebooks, and autograph books, are particularly attractive to thieves.</li> </ul>	<ul style="list-style-type: none"> <li>• Don't allow researchers access to rare or unique items without professional supervision.</li> <li>• Don't allow researchers to do their own photocopying.</li> <li>• Don't leave small volumes unprotected in the midst of an archival collection.</li> <li>• Don't allow researchers to carry coats, briefcases, packages, or other large objects into research room or collection storage rooms.</li> </ul>
<p><b>Conservation</b></p> <ul style="list-style-type: none"> <li>• Call a conservator when you notice the following:                     <ul style="list-style-type: none"> <li>- cracked or broken book bindings or spines</li> <li>- very brittle or fragile paper or board</li> <li>- mechanical damage (rips and tears)</li> <li>- mold growth (staining, haziness on paper or leather surface, a musty smell, or clusters of fiber-like growth)</li> <li>- significant foxing (brownish-red spots)</li> <li>- significant insect or vermin infestations or damage (frass, chewed areas, perforations, dark specks, media removal, or surface cratering)</li> <li>- tape stains (dark adhesive stains where tape was placed)</li> <li>- pigment acidity (paper loss in areas with ink or pigment)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Don't count on conservators to restore your rare books to their original state of perfection after they have deteriorated significantly.</li> </ul>

**References**

Canadian Conservation Institute, *CCI Notes* 11/8 "Display Methods for Books." Ottawa, Canada, CCI, 1994.

Clarkson, Christopher and Sherelyn Ogden, "The Book Shoe: Descriptions and Uses." Northeast Document Conservation Center Technical Leaflet. Andover, MA: NEDCC, June 1994.

**Sources**

See *NPS Tools of the Trade* (available only to NPS staff) for housing and interleaving materials and a list of vendors. Archival-quality materials can be purchased from suppliers, such as the following:

Gaylord Bros., Box 4901, Syracuse, NY 13221-4901; (800) 448-6160 or (315) 457-5070; Fax (800) 272-3412.

Light Impressions Corporation, 439 Monroe Avenue, P.O. Box 940, Rochester, NY 14603-0940; (800) 828-6216 or (716) 271-8960; Fax (716) 442-7318.

University Products, 517 Main Street, P.O. Box 101, Holyoke, MA 01041-0101; (800) 628-1912 or (413) 532-9431; Fax (800) 532-9281.

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