Managing a Stacks Cleaning Project
--- by Shannon Zachary, University of Michigan

If cleanliness is next to godliness, I have seen some pretty unholy books in our stacks! When the dust mice gathering on the volumes are plump enough to wink back at you, it may be time to consider a systematic cleaning program.

A stacks cleaning project can benefit the collections in several ways:

- reducing dust levels to make for a more pleasant working atmosphere for both patrons and staff,
- creating a clean environment so that mold, insects, rodents, and other pests are not as readily attracted,
- reducing dust on the outer surfaces of books, tapes, or CDs so that it cannot work into the interior, causing irreversible soiling or scratching.

Finally, and perhaps most importantly, people take their cues from the environment they find: a collection that is clean and well kept promotes general respect and care for the materials.

The Project
At the University of Michigan Library, we accomplish stacks cleaning as rotating special projects targeting specific collections or parts of collections. The projects approach, versus a year-round ongoing program, fits our patterns of staff and funding; defining specific goals and time limits also helps give staff a clear sense of accomplishment. Projects scheduled early in the University's summer term can draw on a ready supply of student assistants and are less disruptive to the library patrons than those done during the regular school year.

Our stacks cleaning projects typically use two to six teams of two workers. From the experience of many such projects, we have calculated average progress of about 11 linear feet of book shelving per worker per hour or 22 linear feet for a team of two workers.

Staff
Stacks cleaning is a job that can be adapted well to make use of temporary employees, student
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assistants, or volunteers. But remember, staff executing a cleaning project will handle every item in the targeted collection. It takes much more time and resources to correct problems created by poorly trained, insufficiently supported, or badly rewarded workers than it does to invest in their well-being from the first.

Stacks cleaning is physically strenuous, dirty, and often boring. When interviewing prospective members of a cleaning crew, it is important to describe the job accurately and make sure each worker is comfortable in meeting its demands. Because of the physical demands of lifting books on and off the shelves, we normally limit each worker to a maximum of four hours per day on this task. Workers are grouped in teams and instructed to rotate jobs frequently to reduce the stress of repetitive motion.

Some people have allergies to dust or to various matter carried in dust. We ask applicants during the interview if they have conditions that would interfere with their ability to carry out this job assignment. Allergic sensitivity to substances can develop suddenly. The manager of a cleaning project must be ready to listen carefully to staff complaints, take them seriously, and work with the staff to identify and correct problems promptly.

The project manager must also take responsibility to make sure the workers know their work is respected and appreciated. In addition to pay checks, appreciation should take many forms, such as an article in the library newsletter, a lunch or an ice cream break to celebrate mini-goals, and relaying words of appreciation expressed by library staff and patrons.

Procedure

Each team of two cleaners shares a book truck and other supplies (see list at the end of this article). One team member transfers a shelf of books, a few volumes at a time, to a book truck or hands them to a second team member to place on the truck. Care is taken to keep the books in order.

One worker then wipes down the shelf, first with a dry rag or vacuum cleaner and then with a damp (not wet) rag wrung out in a dilute solution of Lysol® or other disinfectant. The team works through the shelves from top to bottom, so any dust falling lands on the next shelf to be cleaned. After a damp wipe, the shelf is carefully dried since it must be dry when books are returned to it. Because wooden shelves absorb moisture, allow them a longer drying time or dispense with the damp wipe.

Meanwhile, the second team member treats each book individually, dusting the head of the book first where the most dirt accumulates. The closed book is cradled securely under one arm with a hand supporting the fore edge. The head of the book is tilted forward with the spine uppermost. A soft cloth or brush is used to push the dust away from the spine. Dust that falls down the spine or between the pages of the book is there forever! Finally, a soft cloth is used to wipe down the sides and other edges of the book. Great care must be exercised so that the cloth does not snag on torn or loose parts of the binding.

At this point the crew can also perform other quick maintenance activities, such as placing unbound pamphlets into envelopes or tying up damaged bound volumes with cotton tape. Take care, however, not to hinder the purpose of the cleaning crew by burdening them with too many add-on tasks.

Finally, one team member hands the dusted books, one or two at a time and in order, to the other who positions them on the clean dry shelf. Each worker needs a hand free to support the other books in the row during the transfer. The worker placing the books on the shelf insures that the books are all upright, adequately supported, and flush with or an inch or two in from the front edge of the shelf.

Either the project manager or a team leader can be assigned additional tasks of monitoring the use of supplies, monitoring the progress of the project. (An outline diagram of the stacks can be colored in as each range is completed), and overseeing set-up and clean-up at the beginning and end of each work session.

Signs posted in the area not only ask patrons for their patience with the noise and inconvenience, but also inform the public of the action the library is taking to care for the collections.

Supplies and Equipment

Liquid Lysol® (active ingredient o-Phenylphenol) or Stacks Cleaning Project — continued on page 5
Spiral Bindings in a Hard Cover: An Alternative to Rebinding
— by William Minter, Bookbinding & Conservation

Books with plastic or metal spiral bindings can be a problem when they are shelved. The cover is usually not stiff enough to support the volume and the spiral is normally wider than the text block allowing the book to shift or stagger as it tries to stand on the shelf.

Many libraries have these books rebound to eliminate the problem. Various styles of binding can be used: fan-adhesive and oversewing are two popular methods. Unfortunately, some heavy or laminated papers do not function properly in these structures. The lack of a gutter margin is another problem. Another concern that might be overlooked is the original intent of the publisher. We are increasingly aware of the need to save original publisher's bindings produced around the turn of the century. Consideration should be given to some current spiral bindings that may be unique and should be saved.

My first involvement with this type of project started when a client had fifteen spiral binders that stood in disarray on the shelf. As an alternative to rebinding, I suggested using an enclosure. A simple hard-cover, square-back case was made, and fillers of acid-free corrugated board were added to bulk out the text area. Since the book was now uniform in thickness, it could stand on the shelf squarely. The square spine also allowed for a label to be attached.

This solution, however, deals with only one part of the problem. A further refinement involved attaching the spiral to the case. Currently, I am lining the inner joint with cloth that also has a stiffener. The spiral can be attached to that cloth in a variety of ways including sewing with thread, cord, or even linen tapes. I have also experimented with nylon cable ties used in the electrical industry. Further development will lead to a simplified technique.

The case can be made in quarter cloth with bare boards or covered in full cloth. The fillers can be corrugated or foam-core board and covered with paper or cloth to improve appearance.

Attaching an original spiral binding to a hard cover may not be the solution for every book of this type. The hard cover does not solve the problem of pages that are easily torn from the spiral. However, this method does offer an alternative for text that cannot be bound in any other way to retain the original publisher's binding and format — the best reason for this type of enclosure.

William Minter Bookbinding & Conservation, Inc.,
R.D.1, Box 99, Woodbury, PA 16655-9516,
Phone 814-793-4020, fax 814-793-4045.

Spiral Binding in a Hardcover

10 pt. acid-free map stock has been adhered to the cloth that will line the inside of the cover. Fold cloth at right angle and position the spiral as shown. Mark cloth with an awl for holes to be punched; two holes at each station; minimum of three stations for attachment. Locate center line of spiral on the stiffener; punch holes. Attach spiral by sewing, cable ties or other method. Note: On plastic spirals, it may be necessary to reverse the spiral so that the attachment is made at the strongest part of the panel.

Make square back case (full cloth and turn-ins optional). Attach cloth inner hings (the area with the stiffener is attached first with the stiffener flush to the edge of the board; PVA or double sided tape can be used); adhere the cloth across the joint. Attach fillers of corrugated board, foam-core board or other to square the finished binding. A label can be attached to the spine.
Technical Tips
Care of Books, Documents and Photographs
—by Roger Joyce, Wyoming State Archives

Materials printed on paper, such as books, documents and photographs, are subject to deterioration. The chief factor in this degradation is the acid in poor quality paper, but poor environmental conditions are also important contributors. Proper handling and storage can help slow deterioration and extend the life of paper materials. Documents and photographs should be stored in acid-free containers and placed where temperature and humidity levels are stable. Attics, basements and garages are not suitable storage areas.

Here are a few simple rules for handling and storing paper items.

Books
• Make sure your hands are clean when handling books.
• Place books upright on the shelves using bookends when the shelf is full.
• Remove all acidic materials from books such as bookmarks, pressed flowers, and scraps of paper.

Documents
• Do not repair documents with glue or pressure-sensitive tape since many glues and pressure-sensitive tapes are highly acidic.
• Store documents flat when possible. Do not flatten tightly curled documents with force since fibers will break, weakening the paper.
• Keep documents away from sunlight or fluorescent light as all visible light will eventually damage documents and ultraviolet light will destroy them.
• Do not wrap documents with a rubber band because the rubber will harden and bond to paper.
• Do not use paper clips, staples, straight pins, or other metal objects that will eventually rust.
• Use acid-free folders and boxes rather than wooden or cardboard boxes for storing documents.

Photographs
• Do not store photographs in commercially available “magnetic” photo albums. Choose acid-free materials and pages.
• Do not store glass-based photographic materials flat or stacked. They should be stored vertically.
• Store negatives and prints in acid-free envelopes appropriate for the type of film used.

Gloves

Using white cotton gloves is an essential aspect of artifact preservation. The oils and salts transferred from one’s hands when handling most museum, archival, or other special collection items causes serious deterioration. Gloves help to protect the artifacts from that kind of damage.

• Always wear gloves when handling paper, photographs, textiles, and wooden items. Metal artifacts are especially vulnerable.
• Some artifacts, however, should not be handled with gloves. These include items that can be slippery, such as glass and ceramics, and fragile or brittle items that could actually be at a greater risk if the handler is wearing gloves.
• Change gloves as they become soiled and hand or machine wash them using a mild detergent. Do not use any liquid fabric softeners or dryer sheets. An automatic dryer can be used but air-drying may be preferable.

Roger Joyce, Wyoming State Archives, Division of Cultural Resources Wyoming Department of Commerce, 6101 Yellowstone Road, L.L., Cheyenne, WY 82002, phone 307-777-7020, fax 307-777-7044.
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a similar disinfectant may be diluted in the water used to wring out damp cloths for wiping down shelves. The disinfectant should never be used directly on the books themselves. In some stack areas where ventilation is poor, workers find the fumes of the disinfectant obnoxious; in this case plain water is used.

Soft cloths or brushes are easier to handle than vacuum cleaners for the fine work of dusting individual volumes. Each team will want a vacuum cleaner at hand, however, to pick up gross dust from the floor or behind where the books sat on the shelves. The nozzle of a vacuum cleaner can be propped upright to receive dust as it is brushed off the books.

Well-washed cotton flannel, knits, or diaper cloth make excellent rags. The cotton is absorbent and easy to wash. Chemically treated dusting cloths should not be used around library material; even if the chemical does not transfer directly onto the books, it does build up as an oily residue on the workers’ hands. Dust Bunny® cloths, which rely on physical structure rather than chemicals to attract and hold dust, are useful but tend to lose efficiency with repeated washing.

Staff will need a generous supply of clean rags for this work. Our estimates for laundry are about six to ten rags per four-hour day or about a pound of dry laundry per team. Arrangements must be made to contract the work to a local laundry or, if a staff member is to handle the laundry at home, expectations and compensation must be negotiated in advance. If wet rags must sit more than a day before washing, hang them up to dry before packing them into the laundry bag.

The best vacuum cleaners for stacks cleaning are equipped with HEPA (high efficiency particulate air) filters. HEPA filters screen out particulate matter down to .3 microns; many standard household vacuums simply redistribute the finer dust through the exhaust. A canister vacuum fitted with an extra long hose (15-20 ft.) may be easier to manipulate and less wearing on staff than backpack models.

Nilfisk and Miele manufacture HEPA filter vacuum cleaners that are excellent, but expensive. Vacuums designed for cleaning photocopy machines also have fine particulate filtration. A recent Consumer Reports article (March 1996, pp. 27-35) provides useful information comparing vacuum cleaners.

Checklist of supplies for each stacks cleaning team

- 1 step stool or library ladder, as needed
- 1 book truck
- box or tote for supplies, fits on lower book truck shelf
- 1 vacuum cleaner and spare bags
- 1 or 2 sturdy bookends
- soft cotton rags (several dozen)
- 2 soft brushes (cheap shaving brush or similar)
- 2 aprons
- 2 pairs rubber and/or cotton gloves
- face masks for dust
- 1 bucket
- liquid Lysol or other disinfectant
- extension cord (25 ft.)
- laundry bag
- alkaline envelopes for pamphlets, various sizes
- cotton tape and scissors
- notebook or notepad and clipboard
- pencils

Shannon Zachary, Head, Conservation & Book Repair, University of Michigan Library, 3202 Buhr Building, 837 Greene Street, Ann Arbor, MI 48104, phone 313-763-6980, fax 313-763-7886, e-mail szachary@umich.edu.
A study carried out by the National Preservation Office of the Netherlands, Coördinatiepunt Nationaal Conserveringsbeleid (CNC), publication no. 9 Deacidification of Books and Archival Materials with the Battelle Process is now available. This report gives an independent insight into the effectiveness of this mass deacidification system. As a conclusion of this research, using the Battelle process appears to result in a positive contribution to the durability of the paper, both in books and in archival materials. Despite this positive comment, it can be concluded that the Battelle process suffers from a number of shortcomings which can obstruct a large-scale application. The results of this research will be sent to Battelle and hopefully will result in an improvement of the current process. The report can be obtained through the CNC-secretariat. The cost is 20,- Dutch guilders ($14.88 U.S. dollars at the rate of 1.68 Dutch guilders to one U.S. dollar).

Ton Dijkstra, CNC Assistant Secretary
Coördinatiepunt Nationaal Conserveringsbeleid
p/a Prins Willem-Alexanderhof 5
Postbus 90407-2509 LK Den Haag
phone 070-3140413
telefax 070-3140440
E-mail: cne@komibib.nl

As another year draws to a close, the Archival Products staff thanks our friends, associates, and valued customers for your friendship and goodwill. We sincerely wish you all the happiness that a prosperous and successful New Year can bring.

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Academy Folders

Archival Products Academy Folders are constructed of .040 dark tan archival board, a dark brown C grade book cloth spine, and a 5 mil acid-neutral Mylar® envelope fabricated of transparent polyester and welded on two sides with an opening at the top and spine. This allows placement of photos or other display items without bending and unnecessary handling.

TECHNICAL SPECIFICATIONS:
- Outer folder is constructed from .040 dark tan archival board that contains a 3% calcium carbonate reserve, has a pH of 8.5, is acid-free and lignin-free.
- Interior envelope is 5 mil Mylar®.
- Folder is constructed using acid-neutral polyvinyl acetate adhesives.
- Corners are rounded to 3/8 inch radius.
- Hinge measures 1/16 inch with folder closed.

Newspaper & Map Folders

Archival Products Newspaper and Map Folders are a modified version of our academy folder. The folder, hand-crafted of .060 dark tan archival board and a dark brown C grade book cloth spine, has a 5 mil acid-neutral Mylar® sleeve mounted on the inside back cover. The Mylar® envelope, polywelded on two sides, stores and allows you to view your large fragile materials safely. The .060 folder provides a sturdy display without bending and unnecessary handling of the item and renders safe, flat storage of your newspapers, maps, prints, posters and other large items.

TECHNICAL SPECIFICATIONS:
- Outer folder is constructed from .060 dark tan archival board that contains a 3% calcium carbonate reserve, has a pH of 8.5, is acid-free and lignin-free.
- Interior envelope is 5 mil polyester Mylar®.
- Folder is constructed using acid-neutral polyvinyl acetate adhesives.
- Corners are rounded to 3/8 inch radius.
- Hinge measures 1/16 inch with folder closed.
- Spine is made of brown C grade book cloth.

For further information contact:
Millie Knee, Customer Service Representative
Janice Comer, Division Coordinator
Toll-free 1-800-526-5640, FAX 800-262-4091
e-mail: archival@ic.netcom.com
web site: http://www.archival.com
Archival Products Focus

Music Score Enclosure

Archival Products initially fabricated this enclosure specifically to store a conductor's score along with the separate instrumental parts holding multiple scores together in one unit to simplify retrieval of the entire composition for the next performance. Since then, other uses have been discovered for the Music Score Enclosure such as book storage, a comic book series collection, and scripts.

We use a .060 dark tan archival board to construct the outer folder and a .040 dark tan archival board for the interior four flap scoring it at 3 inches to accommodate thick materials. The four flaps surround the score and are secured with Velcro buttons. The navy buckram spine is reinforced with .060 dark tan archival board for stability. This enclosure will safely store your compositions.

TECHNICAL SPECIFICATIONS:
- Outer folder is constructed from .060 dark tan archival board that contains a 3% calcium carbonate reserve, has a pH of 8.5, is acid-free and lignin-free.
- Inner enclosure is constructed from .040 dark tan archival board.
- Enclosure is scored for a 3 inch depth.
- All adhesives are acid-neutral polyvinyl acetate.
- Spine is made of navy acrylic coated buckram.
- Corners are rounded to 3/8 inch radius.
- Spine measures 3 1/4 inches wide.

For further information contact:
Millie Knef, Customer Service Representative
Janice Comer, Division Coordinator
Toll-free 1-800-526-5640, FAX 800-262-4091
e-mail: archival@ix.netcom.com
web site: http://www.archival.com