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Library Collections Conservation Discussion Group 2006: The Changing Role of Collections Conservation II: New Workflows and New Collection Paradigms: Conservation's Role in Off-Site Storage Workflows and Projects

ABSTRACT

The Library Collections Conservation Discussion Group (LCCDG) co-chairs presented two topics for discussion at the AIC Providence meeting: (1) conservation's role in off-site storage workflows; and (2) conservation's role in digitization workflows.

Discussion Topic 1: Many research libraries have recently secured or are currently constructing off-site storage buildings to house low-use and special library materials. Conservation unit staff are often involved in building design considerations, collection development decision-making, and preparation and transfer of materials to these new storage areas.

Discussion Topic 2: The introduction of digitization projects has also changed the nature of the work conservators perform. We have become increasingly involved in selecting materials, providing conservation treatment before and after scanning, educating digitization staff, and preserving newly created digital collections.

Because the discussion on topic 1 was lengthy, sufficient time was not available to address topic 2. Therefore, topic 2 will be offered for discussion at a subsequent LCCDG meeting.

INTRODUCTION

The goal of this discussion group session was to share information, comments, and experiences related to the planning and ongoing use of high-density, off-site, and other library and archives storage facilities. The moderators prepared a list of questions to pose to the assembled group to facilitate open exchange. The conversation was not, however, limited to those subtopics and was primarily determined by audience interest.

To open the discussion, the moderators offered a brief description of off-site storage, specifically the Harvard high-density model where materials are usually stored by size, two- or three-deep in cardboard trays or other bins. The discussion proceeded as follows.

BUILDING DESIGN CONSIDERATIONS

Group participants discussed the following question: What role might the conservator play in representing preservation issues during construction or retrofitting of the storage facility?

Retrofitting an Existing Structure for Storage of Collections

Using an existing structure not designed for high-density storage may result in preservation problems. Regulating the temperature and relative humidity may be more challenging than in a purpose-built facility. One participant noted that her institution's space contains asbestos insulation, clearly not ideal for collections or staff. Also, participants stated that retrofitting structures may mean accepting existing configurations of piping that increase the risk for water disasters and damage.

Environmental Issues

Participants discussed conservator input in creating preservation environments in storage facilities. Some participants noted that if environmental conditions can be controlled by zone, it might be possible to divide permanent and archival collections, or separate materials by format. This approach would allow for more optimal storage environments. Others stated that they have been

This open discussion took place on June 18, 2006, during the AIC 34nd Annual Meeting, June 16–19, 2006, Providence, Rhode Island. The moderators organized and led the discussion and recorded notes. Readers are reminded that the moderators do not necessarily endorse all the comments recorded and that although every effort was made to record proceedings accurately, further evaluation or research is advised before putting treatment observations into practice.

involved in designing facilities with multiple modules that cater to specific formats.

Disaster Preparedness, Response, and Recovery

One participant noted that when storage shelves are thirty feet tall, preservation staff may not be alerted to a water leak for some time. At least one institution has had such an experience. Detecting leaks at an early stage is more difficult—often happening only by serendipity—yet our disaster plans may not reflect these changes in stacks and shelving design.

Another participant involved in the construction of a new high-density storage facility noted that her institution opted to construct two catwalks, rather than rely on retrieval by order picker. Fire sprinklers and lighting on multiple levels will be installed. Because a fluorescent light tube falling from thirty feet might smash and spread mercury over a large area, she recommended cages around the lights to contain the bulbs should they break. In addition, her institution opted to place lightweight sheet metal over the tops of the shelving to divert potential leaks away from collections. Likewise, no collection items will be stored on the top shelves so fire sprinkler damage might be minimized.

Another issue that generated interest was how to identify the most valuable materials in case of a disaster. In some institutions, special collections materials are segregated into dedicated storage areas, in part to make them easier to locate. One institution attached glow-in-the-dark strips to the shelves holding materials that should be removed first. Other participants questioned whether housing all of the most valuable materials together might create a security risk. One participant offered that her institution's special collections materials, while dispersed through the facility, are housed in trays made from a corrugated board that is a different color from the trays for other collection materials. This feature provides a visual clue as to what might be retrieved first should a disaster strike.

Fire Safety and Suppression

Roberta Pilette, head of preservation at Yale University Library, was invited to discuss a project initiated by members of a 2005 American Library Association (ALA) panel discussion on fire testing and safety in remote storage facilities. At this ALA presentation, audience members watched a video depicting a test burn for a warehouse. While the footage offered insight into the behavior of a fire and the effectiveness of fire suppression systems in commercial warehouses, some librarians questioned the validity of these assumptions for high-density library facilities, especially since many local determinations about fire protection for such facilities are based upon warehouse requirements. Library facilities often have different aisle widths, and materials are more tightly packed on shelves than in traditional warehouses. At this time, fire codes and suppression systems are based primarily on the warehouse model and may need to be reviewed in light of library-specific conditions and risk factors.

As a result of this ALA discussion, librarians representing Columbia, Harvard, the Library of Congress, the University of Chicago, the University of Illinois at Urbana-Champaign, and Yale are joining consultants and engineers from the risk management and fire safety industry to review current fire protection systems with the objective of identifying methods to better protect our library materials in these high-density facilities. In order to learn about the current state of suppression systems and to define a "typical" facility, Pilette and the working group developed and sent surveys to preservation administrators and/or facility managers at fifty-one libraries they believed were operating high-density storage facilities. The response rate was just about 50 percent (twenty-five out of fifty-one). Pilette offered some preliminary findings to provide the group with some idea of the types of information gathered through this survey. For example, 95 percent of the institutions have fixed shelves, most of the facilities surveyed were constructed of reinforced concrete, half of the institutions used the topmost shelves, 80 percent interfile various formats, and respondents were divided on type of fire suppression systems. This group of librarians and representatives from FM Global, an insurance and risk management company, will have a planning meeting in July 2006 to determine their next steps.

Security

Security concerned most of the participants. One noted that security begins at the door of the loading dock of the library, rather than the door of the high-density facility. Some mentioned that it is important to know the path of materials and the points at which they sit outside on loading docks or are left in transport vehicles. Another participant noted that an automatic retrieval system and its associated software offer a different way to think about securing materials and controlling access. Other suggestions for securing materials included the installation of cages, divided environments, and management of transitional bays for materials that require access but will not be permanently kept as archival records.

COLLECTION DEVELOPMENT DECISION-MAKING

Group participants discussed the following question: What, if any, is the role of the conservator or preservation department in setting policies about materials that could benefit from off-site storage?

Preservation Considerations: Brittle, Decorative, Unusual Format, Security Risk, Mold

While there was consensus that low-use materials are usually designated for off-site storage, most institutions use their facilities to house other types of materials with higher access requirements. Many institutions send some special collections materials, especially books that fall into the "medium rare" category, to remove them from the open stacks when they do not fall within special collections' collecting policies.

Most off-site storage workflows include a step to update or fix bibliographic records before materials are sent to off-site storage. Most libraries have made a commitment to making sure all records are as complete as possible, since the record will become the only method for locating off-site, non-browseable collections. While it might be useful to note in the bibliographic record when materials are slated for storage because of decorative or bibliographic features such as an original binding, making this information available in the record might pose a security risk.

LCCDG learned about the collection development dilemma of one conservator, whose institution maintains a regional depository that serves multiple institutions. A policy in place to store only one copy of each title may be challenging when a superior copy of an item already housed in the repository is offered for storage. There is no system in place for cross-institutional comparison of individual titles selected for storage. Along the same lines, preservation staff are challenged to persuade collection development professionals to deposit the best copy in storage even if it can be determined; many librarians prefer to keep the best copy in service and deposit the most damaged or fragile copy into the repository.

Yet another participant noted that it is crucial to train collection development staff to recognize active mold and bring infested items to the attention of the preservation department.

Shelving Issues

Some participants noted that their collections are not arranged by size according to the prevailing "Harvard model," but rather by shelf number. When this is the case and items are later removed for treatment, conservators must exercise creativity in designing treatments that do not produce a piece that is significantly larger than the space from which the item was pulled prior to treatment. At one institution, conservation staff members learned to use thin housings, such as envelopes and paper wrappers, to their best effect. Similarly, several participants noted that shrink wrapping has been useful to gain a bit of space when damaged collections cannot grow in size as a result of preservation attention.

Another concern regarding shelf-number-order shelving in storage facilities is that if a given item is used frequently, bibliographers might deem the material worthy of return to the circulating collections. When this happens, an unusable hole will remain on the shelf at the storage facility. It is not a good use of space and may lead to preservation problems.

PREPARATION AND TRANSFER OF MATERIALS TO OFF-SITE STORAGE

Processing Workflow and Treatments for Materials

To start the discussion of stabilization work and processing for transfer, the moderators took an informal poll to ask participants where this work takes place in their institutions: within the conservation department, or outside in other library or archives units. From the show of hands, it would appear that although a number of institutions have incorporated these activities into conservation, many more are accomplishing this work outside the lab, with the staff resources and primary responsibility falling to other units.

Jennifer Hain Teper, head of conservation at the University of Illinois, Urbana-Champaign (UIUC), was invited by the moderators to report on her work as chair of the ALA Curators and Conservators Group, as well as her research on time and cost studies for processing materials. When UIUC began sending materials to off-site storage, conservation department students assessed every piece to determine which items could be repaired in fifteen minutes or less. Teper discovered that roughly 15 percent of the items slated for off-site storage fell into this category. With her colleague Stephanie Atkins, she led an initiative to devise time and cost studies for preparing materials for remote storage (Teper 2003). Teper noted that one of the challenges for her students was to become accustomed to the idea of minimal treatment. She found that she had to help them step back from the materials and resist the temptation to try to do too much. It may be challenging for conservation students and staff to switch from a system of thorough treatment of library materials to one of providing the bare minimum in stabilization and treatment.

Although the Illinois conservation department maintains oversight of the minimal treatment of remote storage-bound collections, the informal poll of participants indicated that other institutions assign basic stabilization activities to other library workers. A number of conservators discussed the ways in which they have provided training to cataloging department staff and students to apply minimal treatments to collection materials as they are updating and fixing bibliographic records or to circulation staff as they move materials to and from the facility. Moderator Baker made reference to a flowchart she designed for cataloging staff to present the stabilization decisions in as clear a manner as possible. Another conservator noted that her staff provided intense training

when the remote storage facility first opened. At that time, most of the treatments were minimal in nature. However, as the quantity of materials has slowed over time, her staff is able to sweep through and provide more attention to materials than was possible in the past under the time constraints and other limitations imposed by the initial loading of the facility.

Many LCCDG participants noted the challenges associated with sending newspaper collections to offsite storage. No fast and easy way exists to house such items, and even jogging up a stack of newspapers to place them in a box requires a light hand and extra attention to detail. One institution hoped to make the task easier by providing special trays with handles; another uses precut board sets with ties or wraps. The group participants lamented together that newspaper projects require a great deal of lab space, and as a result, many of these stabilization projects for oversized materials have a negative effect on other projects in the same space.

Shrink-wrapping or vacuum sealing may be fast and cost-effective stabilization methods for low-use materials. Conservators saw this stabilization method as effective as and faster than other methods; with many items being processed with a minimum outlay of supplies and time. Some additional advantages highlighted by participants included the ability to secure loose, detached, or dangling parts and to contain red rot. Inserting Microchamber paper or boards cut slightly larger than the book between book and plastic was offered as a suggestion for providing additional protection and support for fragile or brittle materials. In addition, because air is expelled in both processes, items might end up taking up slightly less space than before treatment.

Some institutions that have used shrink-wrapping to secure materials during moves or shifts in open stack collections have elected to leave the plastic in place when books were placed in their final locations. Leaving plastic in place provides a quick visual reference about use of the collections. In one instance, the number of unwrapped volumes indicated that only 1 to 2 percent of the collection had been requested for use. While the accessed volumes were often then considered for boxing, conservators expressed confidence in shrink-wrapping as both a short- and long-term stabilization treatment. A question was raised about the impact of shrink-wrapped collections on the effectiveness of fire suppression systems, particularly if the packages are fully sealed.

As one participant noted, changes to stabilization procedures and enclosure styles require advance discussions with the managers of storage facilities. Something as simple as switching to paper envelopes may create unforeseen problems for stacks staff, and some strategies may be seen as incompatible with established storage systems and protocols for labeling and barcoding.

Moving Materials to Off-site Storage

The safe transport of collections to off-site storage necessitates proper equipment. Many conservators expressed concern that we have little control over collections in transit. Bob Strauss, from Preservation Technologies, discussed his company's use of a collapsible plastic pallet large enough to place many boxes inside (figs.1–2). The pallet may be locked and moved on wheels; it also fits nicely into a truck. Other participants have used padded suitcases as carriers for important or oddly-sized materials, or they have shrink-wrapped entire book trucks to encourage safe transport of library collections.

Cleaning Collections Before or After Transfer

Based on the discussion, most institutions appear to include the cleaning of collections as part of their remote storage processing workflows. While all were in agreement that it is important to clean items before they are shrink-wrapped, most institutions do not include a step to vacuum materials previously boxed. Some participants expressed concern that cleaning was seen as an extra expense to the transfer process and, if not part of the planning and budgeting, often deferred or eliminated once the transfer work began in earnest. One member of the group suggested that if administrators are reluctant to purchase a vacuum cleaner or commit staff time, it might be useful to make the case that HVAC filters are also expensive and must be changed more frequently if the collections in the remote storage site have not been cleaned first.

Use of Materials Housed in Off-site Storage

Finally, the group discussed how rare or fragile materials might be served to the public to ensure the materials' safety. In most libraries they might be used under supervision. Conservators should instruct reading room staff to ensure proper handling of these materials, such as policies concerning photocopying, using cradles, and routing damaged items to conservation for treatment.

The mechanism for routing materials to conservation varies by institution. Some conservation laboratories are located in the remote storage facilities, which aids the routing process for damaged items requiring treatment before or after use by patrons. Group participants noted that training of processing, cataloging, and circulation staff is key to ensuring that the proper materials reach conservation for treatment.

CONCLUSION

The discussion group session was well-attended, and participants were very willing to share their individual experiences and to exchange strategies and solutions. It was evident from the discussion that storage facilities have had an impact on conservation activities as well as library func-

Fig. 1. Collapsible plastic pallet closed. Image courtesy Bob Strauss.

Fig. 2. Collapsible plastic pallet open. Image courtesy Bob Strauss.

tions in general. The discussion of new roles reinforced the concept that library collections conservation is an ever-evolving continuum of options that are heavily influenced by context.

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SELECTED LIBRARY WEBSITES FOR OFF-SITE STORAGE FACILITIES

(all accessed August 2, 2006)

Cornell University Library – Annex Moving Project http://www.library.cornell.edu/annex/news/movingproject/index.html.

Harvard University Library – Harvard Depository

http://hul.harvard.edu/hd/about-hd.html.
Yale University Library – Library Shelving Facility (LSF) http://www.library.yale.edu/lsf/background.html. Includes fact sheet on facility and its construction at http://www.library.yale.edu/lsf/facts.html.
University of California - Northern Regional Library Facility (NRLF) http://www.lib.berkeley.edu/NRLF/about.html.
Library of Congress High Density Storage Facility http://www.loc.gov/today/pr/2002/02-164.html.
Collaborative Academic Store for Scotland (links to web sites for other storage sites) http://scurl.ac.uk/projects/cass/resources/sites.html. Also features page on the literature of off-site storage facilities at http://scurl.ac.uk/projects/cass/resources/Literature.html.

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