For years, library preservation departments have wrestled with the problem of how to structure repair workflow to accommodate the collection needs and the department resources. Many programs opt to centralize the repair workflow so that all of the work funnels through one unit, while other institutions choose to decentralize the workflow so that repairs are performed at the local level. This issue of centralization vs. decentralization is even more critical when discussing repair workflow options for branch libraries.

Duke University Libraries consists of the main library, seven branch libraries and the Duke University Archives. The general and rare collections consist of over five million monographs, two million public documents and 11 million manuscripts, films, videos, music recordings and other non-print media. The conservation unit has one full-time conservator and three full-time technicians who are responsible for repairing or rehousing both circulating and rare collection materials. We quip that our repair backlog is the entire library, but that quip holds a truth since we have a large demand for our services and a small staff to address that demand.

To help meet this demand, we have developed a pilot program to train selected branch-library staff members to perform minor repairs at the branch. The Association of Research Libraries defines “minor repair” as any repair that takes 15 minutes or less to complete.

This program has three main benefits. It provides better access to materials by reducing the time an item is out of circulation awaiting repair. It allows conservation staff to focus on more complicated repairs, permitting us to better use our technicians’ time and skills. Finally, it allows branch library staff to have direct control over some of the repair and pamphlet binding decisions, especially important for specialized materials such as music.
Criteria for Selecting Participants

We have developed four main criteria for selecting the branch staff member that will participate in this program.

1. The chosen staff member must have interest in the project and book repair in general.
2. The trainee must possess certain core competencies. Including some eye-hand coordination, the ability to quickly learn new skills and work and solve problems independently.

Since the candidates may not have book repair experience, learning to identify eye-hand coordination is important. We look for hobbies that require the ability to learn new concepts, manual dexterity and attention to detail. These may include quilting, knitting, fly-tying and computer games.

3. Branch directors and direct supervisors must support the project and take concrete steps to ensure its success.
4. The branch director must offer tangible support including allowing time for off-site training, dedicating space for an in-house repair station and allocating funds to purchase additional supplies and tools as needed.

Tools and Supplies

The Conservation Unit provides a supply kit to each participant at the beginning of the training session. The tools and small equipment in the kit are "on loan" from the Conservation Unit and will be returned if the branch discontinues the project. We also provide the supplies to get the program started.

Our kits were assembled with existing lab supplies and supplemented with a few items purchased from the local craft-supply store. The target budget for the supply kit, including tools and materials, was $150. The total cost came to $155. (See Figure 1.) A copy of our lab manual with repair instructions is also supplied as a reference guide. Paper towels, distilled water, waste paper and similar supplies are supplied by the branch.

Training

The Collections Conservator conducts the training in the conservation lab. Each participant spends one day a week for six weeks with the conservator learning pamphlet binding and several minor repairs. Trainees can work on their own branch materials that they bring with them, or materials from the main library that are in the lab awaiting repair. We also expect them to practice between sessions at their branch.

We train participants to perform the following repairs:

- hinge tightening
- internal hinge repair
- tip-in and hinge-in of errata and loose pages
- photocopy replacement of missing pages
- mend tears with wheat starch paste and Japanese tissue
- open uncut pages
- dry clean dirt
- pamphlet binding sewn and stapled through the fold and side stapled
- guard loose sheets into sections for sewing into pamphlet binders
- create pockets for accompanying materials

In addition to teaching repairs, we spend time discussing the selection of materials for repair. We discuss how to identify, evaluate and sort damaged materials as well as how to set up an efficient work flow. It is also important for the trainee to understand when a repair may go beyond their skills or knowledge base and to set it aside for the conservation staff.
Once training is complete, the conservator schedules a follow-up session at the branch to discuss the physical set-up of the repair station, selection process and to answer any questions. The conservator also instructs staff to begin sending minor repairs to the in-house repair station rather than sending the items to the conservation lab. Additional meetings are scheduled as needed and should take place at least quarterly to be sure the program is progressing and there are no surprise problems.

**Evaluation**
Each participant is required to keep monthly repair statistics for the conservator. These are used to evaluate their progress and are included in the annual ARL statistical report. In addition to statistics, the conservator uses the on-site evaluations to check the progress and quality of the repairs. If any concerns arise, the conservator and staff member can address and correct them during the visits.

In addition to the standard training regimen, participants may also schedule refresher training whenever they feel they need to hone their skills. This training can take place either at the branch or conservation lab. Branch participants are also welcome at other training sessions including disaster recovery and exhibit preparation workshops.

**Goals**
We expect to see 400 additional minor repairs performed yearly at each branch that participates in this program. The amount of repairs performed in any given period will vary depending on personal performance and workload of each individual. It is important to set realistic performance goals that take into consideration the other duties that person must perform.

We started the pilot program in the Duke University Music Library in February 2003. We would like to provide repair training for at least three of our seven branches, but will give this pilot project a chance to operate for a period of time before training other library staff. The program will be evaluated later this year to make any needed changes in the training or supply kit.

**Pros and Cons**
As stated earlier, the program has three main benefits. It reduces the time an item is out of circulation awaiting repair, allows conservation staff to concentrate on more complicated repairs by removing some minor repairs from their workflow and enables the branches to control some of the repair workflow.

The program also benefits the library as a whole. It provides professional development opportunities at a low cost to the institution. It also fosters cooperation across branches and units, which is an important goal of our administration.

The Conservation Unit benefits in several ways. It raises awareness of what we do across the library system, our faces and services more visible, offer opportunities to carry out our outreach mission and to repair more books per year.

Branches with specialized pamphlet binding needs, such as our Music Library, have staff that understand the idiosyncrasies of the material. Training them to do pamphlet binding and minor repairs means that they can often take on the treatment without needing to convey special instructions to the Conservation Unit. When a repair is beyond their skill level, technicians are better positioned to describe the required treatment to the Conservation Unit.

When contemplating a similar program, consider the following challenges. If your trainee is promoted out of the position, a new person who meets the selection criteria must be identified and complete the training program before repair work can continue. If staff turnover is high, the
Benefits may not outweigh the time and effort of constant training. There is no daily supervision of the work accomplished at a branch library. Since the direct supervisor of the trainee may not know enough about the repair procedures to provide feedback or perform quality control, the conservator may need to train the supervisor to perform quality control and to recognize potential problems.

Since this person is performing repairs independently from the conservation lab, there is a possibility that ongoing problems will be unanswered or uncorrected for a lengthy period of time. Communication and site visits are important to ensure a quality product and to maintain the skills of the newly trained staff member.

Finally, branch libraries almost always seem to have fewer staff members than needed. Adding more responsibilities to an already strained workforce can be difficult and the quality of the work suffers. Therefore the trainee must maintain a realistic work schedule that accommodates the new responsibilities of repair work. This has been the hardest problem to resolve and one we continue to assess.

What Would We Do Differently?

We have identified several areas to improve upon since completing the first pilot training project. Changes we will make to the program include:

A) Build performance expectations into the job description and annual review.
B) Finalize the staff member’s bench schedule with the supervisor before work begins at the branch. It is important to have a schedule that benefits all of the parties and one that will be maintained in the long term. The schedule must be followed as closely as possible if the program is to succeed.
C) Schedule quarterly reviews with the repair staff and their supervisor to be sure that the program is meeting everyone’s expectations and to address any problems that may arise.
D) Request that the technician’s supervisor periodically send random samples of the repair work to the conservation lab for quality assurance.
E) On the technical side, we will purchase tacking irons for our supply kits and provide two-centimeter-wide rolls of Filmoplast R heat-activated repair tissue to replace the Japanese tissue and wheat starch paste repair procedure. This new product will be easier and faster to use and will cost about the same as the wheat starch paste and Japanese tissue that it replaces. We originally had several pounds of pre-cooked paste on hand and used this in our supply kits rather than purchasing new supplies such as the Filmoplast R.

Conclusion

We have successfully completed the branch repair pilot project on schedule and within budget. We hope to achieve our goals of increased number of repairs, faster turnaround time and better service to our branch libraries by continuing and improving the program. We believe the benefits of this project outweigh the difficulties of administering the program.

This model can also serve as a starting point for any small library that wants to begin a repair program. Several regional centers offer high quality basic book repair workshops at affordable enrollment fees if an on-site conservator is not available. The cost of the supplies may be slightly higher since the equipment may not be on hand, but should not pose an undue burden on the supply budget.

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Introduction

In the largest conservation departments in U.S. libraries, circulating, or general, collections conservation and special collections conservation commonly are performed in separate work areas. While this system works well for these larger libraries, smaller research libraries often have “hybrid” conservation laboratories for the execution of both batched, mass-production treatments (typically for general collections) and single-item treatments (typically for special collections).1 Such labs generally have only a few permanent staff members, at best, and rely heavily on student employees. Employees in hybrid labs may be challenged by the differing paces and styles of the two distinct types of conservation work, but general and special collections conservation can be successfully integrated in one conservation space. This article focuses on some of the challenges and benefits experienced in the University of Kansas (KU) hybrid conservation laboratory.

Circulating Collections Conservation

Circulating collections conservation is often characterized by a fast-paced, energetic work environment. At KU, general collections conservation staff treat between eight and ten thousand items per year. Typical tasks include placing new pamphlets in binders to prevent damage, mending with Japanese paper and wheat starch paste, and executing various other treatments, such as creating new case and adhesive bindings for items not suitable for commercial rebinding.

The circulating collections conservation section at KU is staffed by one full-time assistant conservator who is responsible for sorting damaged materials. Various undergraduate and graduate students aid this assistant, as does a three-year conservation intern, who also has some managerial responsibilities. The bulk of our material comes from the main library's circulation department and from five branch libraries, where designated staff are trained to note damage. We also receive a small amount of new material (mainly pamphlets requiring reinforcement before being shelved).

In order to maximize our output, we use mass-production approaches. For example, similar items are customarily batched and treated in a group to save time. To further increase efficiency, some materials are precut when appropriate, and different thicknesses of board and widths of spine-lining cloth are stocked.

Special Collections Conservation

The KU conservator executes treatment of special collections materials, although the assistant conservator and intern occasionally aid in this work. Such treatments usually do not involve the mass-production techniques used in circulating collections work. Instead, special collections treatments are usually undertaken at a slower, more focused pace.

Despite dissimilarities in treatment approaches, the performance of circulating...
and special collections work in one space can yield advantages if the space has been carefully designed. As Rowley and Hanthorn state in an article about the development of a hybrid laboratory at Iowa State University, “[A] treatment facility designed solely for one type of collection or the other will be very different from one designed to treat the needs of both general and special collections with a broad range of physical problems.”2 Expensive laboratory equipment, most of which is used only sporadically, may be shared to save money and storage space. Funds also may be conserved when ordering supplies; bulk orders often garner a reduced price-per-item. Furthermore, each type of work may be enriched by the techniques of the other. Mass production approaches may help the special collections conservator speed up the treatment of many similar items. The knowledge of the history of bookbinding and materials science required for special collections work may help circulating collections staff understand the book structures they come across on a daily basis and make better-informed treatment decisions.

The University of Kansas Hybrid Laboratory

The hybrid laboratory at KU is typical of many found in similarly sized research libraries. The lab, at 1650 square feet (including a storage room and computer area outside the main laboratory space), is not particularly large considering the size of the collection.

When Preservation Librarian Brian Baird designed the lab, he had to work around the limitations posed by a strangely configured basement space that had been dug out of the bedrock some years after the library was built. Consequently, he had to be particularly judicious when creating our hybrid space.

All KU conservation staff share equipment, but somewhat-divided areas are designated for circulating and special collections work. The circulating collections repair area, which occupies the center and west end of the lab, features four workspaces at a large table in the center of the lab and four workspaces along two outer walls. A wall of shelves provides space for each employee to store work in progress. Students and staff members have their own drawers for individually assigned tools, while other drawers hold common tools and equipment. Full-time staff have permanent benches, and the students work at whichever desks are available during their shifts. Although the lab is equipped with seven book presses, the presses are not assigned to individuals or the eight workbenches. Because these pieces of equipment are in high demand, items put in each book press are labeled and can be removed by others if necessary.

Larger pieces of equipment used mainly for circulating collections work, such as the adhesive binding machine and the corner rounder, have been placed in the circulating collections space. The three job backers, used by both subdepartments of the lab, are located between the circulating and special collections work areas.

In basement laboratories like the one at KU, good lighting is especially important. Because the oddly shaped and rather dark space has no windows, and thus no natural light...
light, we invested in an expensive lighting system whose cost has been well justified. The lights move along tracks and can be aimed at particular work areas as needed. Not only can we better see our work, but morale is also higher — working without windows is not easy, especially during the winter months.

At the east end of the long space, the conservator for special collections has a small office with a desk, filing cabinets and computer. Immediately adjacent to her office, and somewhat separated from the circulating collections bench area, is her bench with its own book press. Also at the east end of the lab are the washing sinks, fume hood, vacuum suction table, microscope and drying racks — all of which are used mainly for special collections treatments. Although we do not have room for a permanent space for photodocumentation of special collections work, the easily accessible strobe lights, tripod and backdrop are stored near a common table kept free for this purpose. While a separate darkroom would be preferable in a larger space, this system has worked well for us, as work to be photographed is usually batched and therefore not done on a routine basis.

The special collections area also features drawers that house specialized tools used mainly or exclusively for special collections conservation. Common necessities, such as blotter and Japanese and Western papers, are housed in common flat files in an area that bridges the circulating and special collections work areas.

Security
While managers should trust their workers at all levels of institutional responsibility, having an adequate amount of locked storage space helps to remove temptations for internal staff and others in the library. For storing items from special collections, we have a large fireproof safe originally designed for securing firearms, as well as locked flat drawers. Other libraries may have drawers that lock in order to keep work at each bench. We do not have a separate alarm system, except on one door that opens to the outside (but can be opened only from the inside). In addition, full-time staff members are the only employees who are given keys to open the door to the department.

Working Styles
One potential drawback of the hybrid laboratory is that the working styles of circulating collections, involving faster-paced mass-production, and special collections, often involving more detail-oriented work, may clash. In order to ensure treatment time during which staff would not be interrupted by outside demands, the conservator and assistant conservator selected two mornings per week when we prefer not to be interrupted by other library staff in person, by e-mail, or by telephone. These times coincide with hours when there are few student workers, all of whom are, in any case, highly trained and generally independent workers. Library staff were apprised of our policy and have been supportive, since the ultimate goal is to treat the greatest number of items in our collections, which is best facilitated by a lack of interruptions.

In the KU laboratory, a compact disc and cassette tape player is available for use by all employees. While the students in the laboratory at KU tend to play music that is fairly conducive to all types of work, such as classical or world music, the use of a stereo without disrupting the workplace depends upon the personalities of those in the lab. Headphones, a potential solution, are often not ideal when standing and moving around quickly in circulating collections work. Occasionally the conservator...
must ask staff to turn down or change the music if a particularly nerve-racking special collections treatment is underway. The playing of music has not been a significant problem for KU, but could be in other hybrid laboratories. We are committed to keeping the music on, as this feature of the job seems to enhance greatly the satisfaction of our student workforce, particularly those undertaking more tedious mass-production repairs.

**Conclusion**

Hybrid laboratory spaces, no longer unusual, require careful design to function most efficiently. If possible, special collections workers should be placed in one area of the lab close to the specialized equipment they use most frequently, and general collections workers should be located in another area of the lab near their commonly used equipment. Shared equipment should be in a space that may be accessed easily by all. With good planning and mutual respect, general and special collections conservation workers can coexist peacefully and profitably in the same laboratory space.

**NOTES**


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