

**Yale University Library
Preservation Department**

**43rd Annual Report
July 2013-June 2014**

**Roberta Pilette
December 23, 2014**

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July 2013-June 2014**

Roberta Pilette, Director of Preservation and Chief Preservation Officer
Murray Harrison, Senior Administrative Assistant

	Preservation Staffing:	July 1, 2013	June 30, 2014
	Positions budgeted:		
C&T		10.00	11.00
M&P		10.00	10.00
	Positions filled:		
C&T		10.00	11.00
M&P		8.00	10.00

OVERVIEW OF THE DEPARTMENT

The Yale University Library Preservation Department is responsible for the long-term preservation of all library materials. The Department now consists of four units—Preservation Services; Digital Reformatting & Microfilm Services (DRMS); Conservation & Exhibition Services (CES) including Collections Conservation & Housing (CCH), Special Collections Conservation (SCC) and Exhibit Production Support (EPS); and this year Digital Preservation Services has been added. The Department organizational chart can be found in Appendix I, the annual statistics for the Department can be found in Appendix II.

Strategic Planning

Department

The updated and revised Department strategic plan for 2012-15 can be found on the Preservation web site http://www.library.yale.edu/about/departments/preservation/administration/strat_plan.html. The Department had identified five key objectives to work on through FY 2015:

- Increase the Department’s effectiveness across the Library
- Continue to leverage the knowledge and expertise of its staff to provide the most effective and efficient services to meet the Library’s preservation and conservation needs
- Advocate and work to bring the physical infrastructure (space & technology) to a level that enables it to begin to meet its mission
- Advocate for budget structures and prioritization systems that recognize and provide for a more equitable distribution of resources to meet the Department’s mission to serve all of the Library’s collections
- Renew its commitment to professional development by investing in its most critical resources—its current staff and future professionals.

For FY14 the emphasis was on “advocate and work to bring the physical infrastructure (space & technology) to a level that enables it to begin to meet its mission.” Following on the space Preservation Department Annual Report FY14

planning exercise with Sterling Memorial Library and the programmatic planning specific to the department by Sam Anderson Architects we moved into the planning stages for 344 Winchester Avenue, Science Park. The initial space fit for Preservation and BRBL showed that it would work but as the detailed drawings evolved it became evident that Preservation was going to be a very tight fit. In the end Susan Gibbons, University Librarian, decided that Digital Reformatting & Microfilm Services (DRMS) would remain in Sterling. [In the fall of 2014 however, the University decided to create a Center for Teaching & Learning that would occupy the York Street side of Sterling Memorial Library. The University proposed to move YUL technical services from SML to 344 Winchester. It was agreed that DRMS would move to 344 Winchester as part of the technical services relocation.]

In May after months of planning with Apicella + Bunton Architects (a+b), Yale University Facilities, and Beinecke Rare Book & Manuscript Library (BRBL) the Preservation Department had a design for its spaces at 344 Winchester. The decision was also made to build out the BRBL space and Preservation Department spaces at the same time. The University has approved this approach. The University is contributing to the capital costs for most of Preservation's construction with BRBL 'fronting' the balance until funds are raised. Fund raising is currently underway.

Construction at 344 Winchester began August 11, 2014. BRBL will be using 344 Winchester as a swing space during the complete renovation of their original building on Wall Street therefore 344 Winchester must be completed by spring 2015 for BRBL staff to move in. Renovation of their original building will begin the summer of 2015.

Over the past year, staff across the Preservation Department have spent, and will continue to spend, large amounts of time working with the architects on all aspects of the Preservation Department spaces at 344 Winchester. Conservation & Exhibit Services staff and the architects have had numerous meetings with 100+ emails exchanged over a single three month period regarding design and equipment questions. The Department as a whole has given tours and met with designers regarding furniture. It is anticipated that the Preservation Department (with the exception of DRMS) will move into their spaces during the summer 2015.

In the leveraging of staff knowledge and expertise, we have Robert Klingenberger's development of a workflow tool, ICE (Item Condition Event), and Euan Cochrane has reached out to developers at University of Freiburg who are developing an emulation tool for obsolete software. Both have worked with others in the Library and the broader field to meet needs of staff and researchers.

The Department continued to focus on delivering preservation services to our customers. In an effort to make it easier for our customers to understand which unit to contact for specific preservation services, unit names were changed. In addition minor reorganization and reassignment of responsibilities were done in this effort to clarify to our customers who to contact for specific services. The individual changes are addressed in the unit reports that follow. (The organizational chart is in Appendix I.)

As a means of raising awareness of preservation services and activities, Tara Kennedy, Preservation Librarian, met with Library Communications to discuss the creation of a Preservation Department e-newsletter. This is now an on-going newsletter that the Department takes on as time and projects allow. An example of the newsletter may be found at <http://enews.library.yale.edu/preservation/april.html>

In terms of the budget, the Library is in an extremely tight fiscal period and all budgets are flat at best. There is the likelihood of cuts in order to meet the structural deficit for the next couple years. Expansion of staff will be difficult for the foreseeable future.

PROJECTS/ACTIVITIES

Tours

The Department continues the orientation tours for new staff members. These tours are offered on an as needed basis—whenever there are 3-7 new staff members. The tours have also included long-time staff who have moved to new positions within the Library. This year 45 Library staff members toured the Department during twelve hour-long events. The tours are an opportunity for new staff to meet preservation staff, see the work spaces and learn about the range of preservation services available. We have found that they have raised library staff awareness of preservation services.

Historical Sound Recordings (HSR), Music Library

The HSR collections have been moved from the 344 Winchester location, which was just completed last year, to Sterling Memorial Library and Library Shelving Facility (LSF). This second move was a result of the space at 344 Winchester being needed for Beinecke Rare Book & Manuscript Library's technical services area and the Preservation Department. The temporary space at 344 Winchester become much more temporary than was originally planned.

Pilette and Kennedy served on the advisory committee that worked on the renovation of the Music Library space as well as on the committee that coordinated the renovation of the Sterling Memorial Library space and the subsequent move of collections. As with the 344 Winchester project, Kennedy helped extensively with the environmental specifications as well as ensuring the installed unit operated as stated in the specifications for the Sterling Memorial Library project.

Preservation of Audio Visual (AV) collections

Last fiscal year LEC approved the hiring of Audio Visual Preservation Services (AVPS) to review our AV needs. AVPS completed their work and delivered a final report July 2013. Since that time there have been slow steps forward in deciding how to tackle the series of recommendations; the first being to complete an inventory of all the unique audio visual holdings across the Library system. The core committee of E.C. Schroeder, BRBL; Michael Dula, Library IT; Beth Beaudin, Digital Initiatives; Chris Weideman, MssA; Joan Swanekamp, Cataloging & Metadata Services; and Roberta Pilette worked on developing a means of tackling

the project in two steps. Pilette submitted a project proposal to move the project forward and approval was granted with the proviso that funding could be found.

At this time the University Librarian has a donation that will cover about 90% of the first phase of the project. The balance of the funding will be made up from Preservation and other Library funds. We anticipate Phase one to be completed by the end of summer 2015. This will inventory approximately half of the currently identified unique materials in the Arts Library, Oral History of American Music, Music Library, Divinity Library, and the Medical Historical Library.

ConservationSpace

ConservationSpace <<http://www.conservationsspace.org/Home.html>> is an Andrew W. Mellon Foundation funded project to develop an open-source software application that will address a core need of the conservation community for a shared solution to the problem of documentation management. Christine McCarthy is Yale's conservator representative. She is also the only book/library conservator amongst the U.S. and international partner institutions. As such she is involved in discussions on design and project planning, keeping the conservators at Yale informed as to progress, and arranging trials and demonstrations of the application. McCarthy joined the National Gallery project leads and conservators from the Metropolitan Museum of Art, New York for a presentation to the Mellon Foundation on the project's progress and to make the case for additional funding for Phase 2 build out. The build-out phase was approved by Mellon and is expected to be completed by December 30, 2015.

EMERGENCY RESPONSES

The Preservation Department is able to respond 24/7 to any Library emergency involving collection materials. Over the past year, we had four events. The major event was a broken water pipe in the ceiling of the conservation lab. This December event affected three areas on three different floors—the conservation lab on the mezzanine of the stack tower, the Music Library on the first floor of Sterling Memorial Library, and the Microtext Reading Room in the basement. Over 300 hours of staff time was devoted to response and recovery from this major pipe burst. In general the number of events and the staff time devoted to response and recovery had dropped over the twelve years statistics have been kept on these incidents. See Appendix III.

CONFERENCES, PRESENTATIONS, COMMITTEES & TRAINING

Yale University Library encourages staff participation in professional activities, both within the University and library profession. Staff are encouraged to enhance their knowledge base by learning a new activity or building on their current skill set.

Meetings/Conferences/Travel

American Library Association Meetings

Mid-Winter – January 2014, Philadelphia, PA; Roberta Pilette

Annual – June 2014, Las Vegas, NV; Robert Klingenberg & Tara Kennedy

American Institute for Conservation, San Francisco, CA, Mays 2014

Laura O'Brien-Miller
Early Modern Binding Conference, Folger Shakespeare Library, Washington D.C. August 2013
Fionnuala Gerrity
Laura O'Brien-Miller
Open Repositories, Helsinki, Finland, June 2014
Euan Cochrane
Guild of Book Workers, Washington, D.C., October 2013
Fionnuala Gerrity

Committees/Task Forces/Working Groups

Department members are active on a wide variety of committees, task forces and working groups at the Library, University and national level.

The following list is a selection of Library committees, working groups & task forces on which Preservation staff have served over the past year:

- Library Executive Council (LEC)
- BRBL Loan Process Task Force
- BRBL Space planning
- Local 34 Best Practices committee
- Local 34 Job Advancement Team
- Nave Programming Committee
- HSR move to SML
- Map Task Force
- Grant Management-Program Planning
- Exhibits Task Force
- Web Exhibit Working Group
- Metadata for Digital Assets Committee
 - Records and Databases Relationships Task Group
 - PreMIS Working Group
- Digital Collections Steering Group
- Digital Preservation Policy Development Task Force
- Kissinger Collection Digitization Project Planning Group (for lack of a better name)
- Yale Audio-Visual Advocates Group
- YUL Cataloging Coordination Council

Preservation Department members are also involved in a number of professional organizations. Below is a partial list:

- ConservationSpace, Mellon funded initiative
- American Library Association (ALA), Preservation and Reformatting Section (PARS)
 - Preservation Standards and Practices Committee
- American Institute for Conservation (AIC)
 - AIC-CERT (Conservation Emergency Response Team)
 - Book & Paper Group (BPG) Education & Programming Committee
 - BPG Archives Discussion Group

- Paper Conservation Catalog WIKI
- Northeast Document Conservation Center (NEDCC)
- Guild of Book Workers (GBW)
 - GBW Journal, Editorial Board
- COSTEP-CT (Coordinated Statewide Emergency Preparedness – CT)
- National Information Standards Organization (NISO), Content and Collection Management Topic Committee

Presentations, Exhibits, Publications

Staff contribute to the profession through webinars and lectures. Below is a list of some of those activities:

Conference that brought in librarians, archivists, and other cultural property managers from around India Nehru Memorial Museum and Library in New Delhi, India, October 2013—Tara Kennedy, Preservation Services Librarian, Christine McCarthy, Chief Conservator, and Sarah Calhoun, South Asian Librarian, Susan Gibbons University Librarian. All presented lectures on their respective areas of expertise.

Care & Conservation of Manuscripts' Conference, Copenhagen, Denmark, March 2014 – Paula Zyats presented a paper, “The Mysterious Voynich Manuscript: Collaboration Yields New Insight”.

L Gillman Law Library, Reflections on Bookbinding: Using New Technologies to Study Historical Bindings, exhibit at the Law Library, March – May 2014; Christine McCarthy, Karen Jutzi, Ansley Joe, Fionnuala Gerrity

ALA Preservation Week, Preserving Your Personal Papers, Ferguson Public Library, Stamford, CT and Beacon Public Library, Beacon, NY, May 2014, presented by Christine McCarthy

The 11th International Conference on Digital Preservation, Developing costing-models for emulation based access in scientific libraries, Euan Cochrane, Dirk Von Suchodoletz and Klaus Rechert. Presented by von Suchodoletz & Rechert. Melbourne, Australia, October 2014.

Euan Cochrane. “Implementing Event Metadata for Digital Preservation” to be a chapter in *Implementing PREMIS* anticipated publication in 2015.

Training

All managers encourage staff development. This is done through a variety of sources—the University Learning Center offerings and scholarships or awards granted by professional organizations. Below is a selection of some of the training activities.

University/Library courses & workshops

Managing at Yale Essentials
Windows 7 computer course
Project Management Lite

Other courses

Jesse Myers parchment making demonstration/workshop; YUL, January 2014 – Christine McCarthy, Paula Zyats, Marie-France Lemay, Karen Jutzi

North Bennet Street School, Boston, MA, March 2014
Springback Binding Structure – Fionnuala Gerrity
Brass Clasps – Fionnuala Gerrity

Books & Beasts: Parchment Identification from Conservation Waste, Yale Center for Conservation & Preservation, April 2014 – Christine McCarthy, Paula Zyats, Werner Haun, Marie-France Lemay, Karen Jutzi, Fionnuala Gerrity

Rare Book School, University of Virginia, March 2014, *The Book to 1800: Description & Analysis* – Fionnuala Gerrity

Teacher & Librarian exhibit preview Coney Island, Wadsworth Athenaeum, Hartford, CT; March 2014 – Kerri Sancomb

Printing type: 1450-1830, Ecole de l'Institut d'Histoire du Livre, Lyon, France, June 2014 – Ansley Joe

Conservation of Globes, Horneman Institute, online course, June 2014 – Christine McCarthy

PERSONNEL

Since the arrival of Pilette as director in 2002 this is one of the few years where there has been only one staff departure during the fiscal year. We hope this is the start of rebuilding the department. In FY2005 there were 26 budgeted positions across the department and at our peak 25 of those were filled. FY2010 saw the department at its lowest with only 16.5 positions budgeted, all were filled. In FY2011 we had only 14.5 positions filled of the 16.5 budgeted. Over the past two fiscal years we have slowly filled and added positions. At this time we have 21 positions budgeted and filled. We hope over the coming years as the budget situation stabilizes and improves, and with the move to more spacious quarters, the department will continue to build back towards 26 budgeted positions. The five positions would be very different from what they were previously as the department has changed and continues to change in order to meet the long-term preservation needs of the Library's collections.

New staff members to the department in FY14:

Murray Harrison, Sr. Administrative Assistant, August 26, 2013

Euan Cochrane, Digital Preservation Manager, September 3, 2013

Werner Haun, Assistant Chief Conservator, CCH, January 2, 2014
Susan Mar, Binding Assistant, May 2014

Staff members who have left during FY14:

Elizabeth Haugh, Sr. Administrative Assistant, August 30, 2013 (retirement)

PRESERVATION SERVICES OFFICE

Tara D. Kennedy, Preservation Services Librarian

Staffing as of June 30, 2014:

C&T Staff

Ellen Zemina	Binding Assistant	Level B
Susan Mar	Binding Assistant	Level B
Sara Misgen	Student Assistant (10 hours/ week; FTE during summer semester)	
Tim Gannett	Student Assistant, Backlog Project (10 hours/ week)	

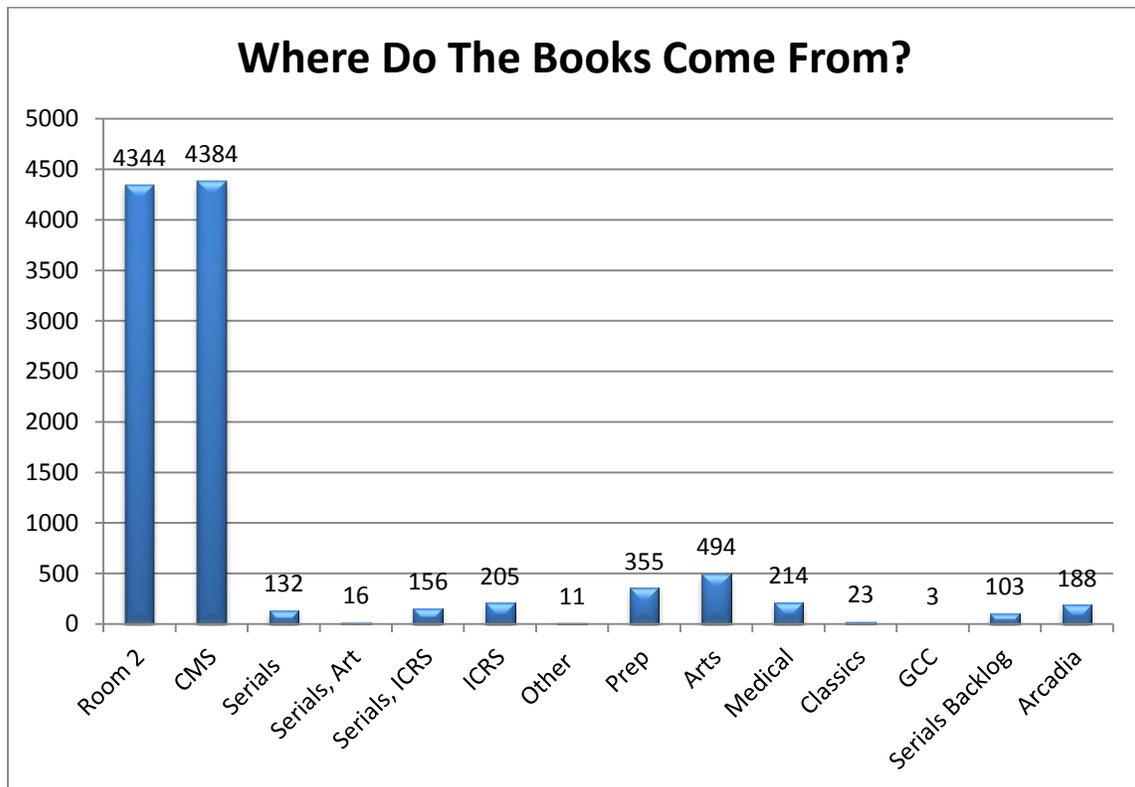
Brief overview of operations

This Unit's primary activities consist of preservation review of circulating and reference collections; monograph binding; mass deacidification; and commercial boxing. Other preservation-related activities include environmental monitoring and reporting; HVAC consulting; emergency preparation and response; collection surveys; and preservation education and outreach.

Services

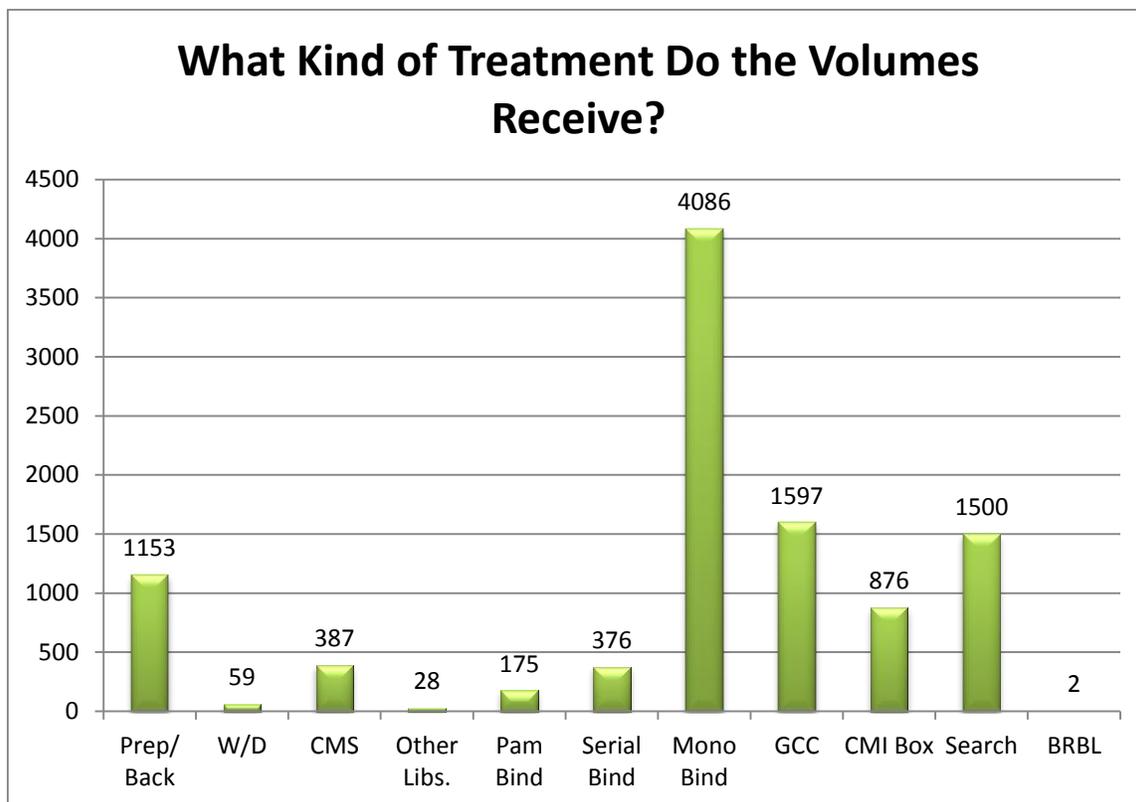
Preservation Review

Kennedy reviewed **10,631 books** from circulation and cataloging backlog collections this fiscal year, with an average of **236 volumes per week**. Below is a table demonstrating where the volumes originated before coming to the Preservation Department for review.



Notable statistics:

- Damaged circulating materials makes up 41% of items reviewed by Preservation Services.
 - Saw a 20% decrease from last year in damaged circulated materials (Room 2)
- Recently-cataloged materials from CMS makes up 41.2% of items reviewed by Preservation Services
 - Preservation Services saw an 11% increase in recently-cataloged materials coming to Preservation. This year, CMS surpassed circulation in the number of materials sent for Preservation Review.



- Monograph binding is the most frequently designated treatment for materials (4,086 books; 38%)
- General Collections Conservation (now renamed Collections Conservation and Housing) is the second most frequent treatment designation at 15% (1,597 items); most of these materials are pamphlets needing rehousing
- Searching titles due to condition (brittle, damaged) is 14% (1,500 items)
- Preservation Student Assistant, Sara Misgen, searched 1,877 volumes during the fiscal year (September 2013-June 2014)
- Kennedy made preservation decisions on 2,777 volumes that were previously searched
- Serial binding now is under the purview of Preservation Services, beginning in May 2014.

Monograph Binding, Mass Deacidification, and Commercial Boxing

This fiscal year was spent managing change both in the unit and the Library. Kennedy wrote an RFQ for commercial binding for a one-year contract last fiscal year, and the result was that we

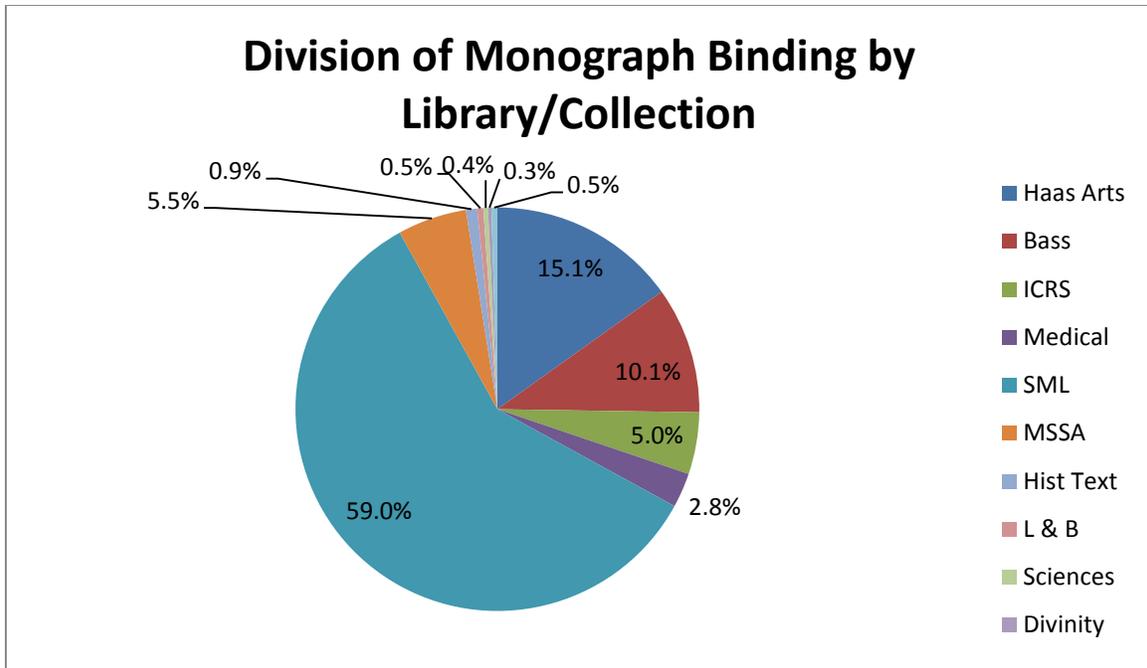
changed commercial binders from Bridgeport National Bindery to HF Group Acme Binding. The library also changed binding databases from LARS to ABLE. Kennedy assisted with the transition and the migration of data from all of the stand-alone LARS databases across the library; assisted with getting everyone trained on using ABLE; and coordinated all aspects of the transition including shipping, setting up deposit accounts, answering billing questions, answering binding and ABLE questions, etc. Since this binding contract was for only one year, a new RFQ was issued for a three-year contract. A decision will be made on a new commercial binder in the next fiscal year, but the Library will be most likely returning to Bridgeport Bindery for the next three years.

Kennedy also chaired the Commercial Binding Task Force to examine commercial binding operations throughout the library to find efficiencies and cost savings. The findings from the Task Force resulted in the eventual centralization of binding operations under the Preservation Services unit, which will occur during the next fiscal year coinciding with the new binding contract. This is a huge accomplishment in that it is a step toward the centralization model that the Library is moving toward: creating efficiencies by concentrating binding tasks in a smaller number of staff with a single point of supervision. Also as part of this task force, Kennedy spearheaded an updated Binding Policy that focuses on remedial rather than preventive binding of collections, but with a focus on those newly-acquired items that are especially at risk for loss or damage. Changing focuses also will make this policy more cost-effective than its previous incarnations.

As part of the binding centralization and the reorganization of SML Preparations, the management of serials binding operations and one FTE binding assistant were moved under Preservation Services this past May. This move coincided nicely with the coming centralization of commercial binding.

With the new software ABLE implemented, Preservation Services was able to bind materials for any of the libraries, instead of having to send items to the owning library. More improvements and changes will be made in the coming months and in the new fiscal year as we adjust to these new systems, vendor, and procedures. This fiscal year, Binding Assistant, Ellen Zemina, had 7,615 volumes bound, including pamphlets and graduate student theses.

Below is a division of monograph binding by library/ collection:



Not surprisingly, the majority of monographs bound are for SML’s collections. The second largest percentage is Haas Arts Library, with Bass Library coming in third. The fourth largest customer, Manuscripts and Archives, includes the number of these bound.

For mass deacidification, we sent out 491 volumes, mostly from the Near East collection and some from the Historical Text collection.

Commercial boxing is handled by two outside vendors: Custom Manufacturing Inc (CMI) and Talas. Sara Misgen, Preservation Student Assistant, performed the measuring and assembly of the boxes. This past fiscal year, she measured and assembled 1,278 archival boxes for fragile collections. These boxes were created for circulating and just-cataloged items; and the Preservation Reformatting Backlog.

Preservation Backlog Elimination Project

Starting this fiscal year, Preservation Services began tackling the over 10,000 volume preservation reformatting backlog that has been with the department for several decades, which resides in two basement spaces in SML. The process includes performing bibliographic searches (performed by student workers) and making decisions based on the bibliographic search information, performed by the Preservation Services Librarian. Items that needed minimal cataloging work – acquiring digital surrogates and withdrawals – were sent on to Digital Reformatting and Microfilm Services (DRMS) for processing. Other items – such as materials needing binding, repair, or pamphlet housing – were sent to the commercial binder or to Collections Conservation and Housing (CCH), respectively.

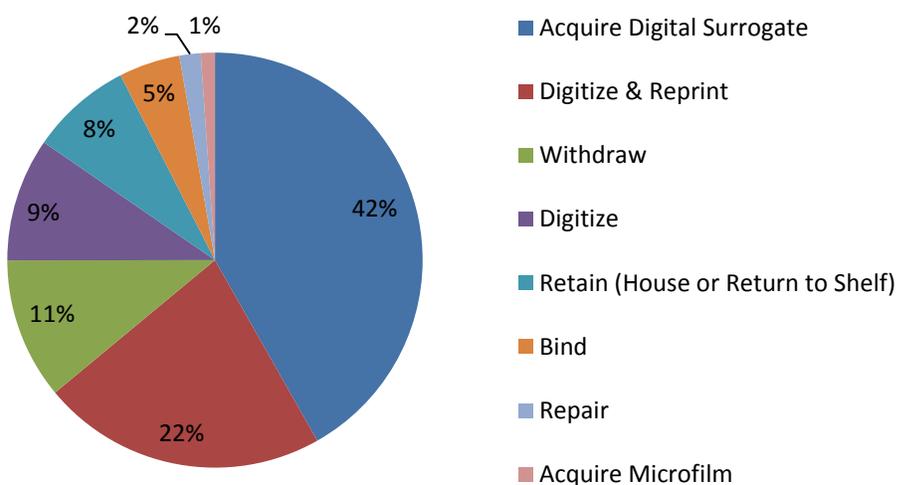
Some cost models were presented with preliminary data in January 2014 and it was determined that the most cost- and time-efficient model was to send any items needing digital reformatting

to the LSF with restricted access (or back to the shelf with its other volumes, depending on the volume's condition) in archival boxes or pamphlet binders/ envelopes. The decision information will be retained in the upcoming ICE database so when the volume is used by a patron and sent to Preservation, it can be digitized at that time.

This fiscal year, **1,810 volumes have been searched** (18% of total backlog) by student assistants Tim Gannett and Sara Misgen and **1,091 volumes have been processed** (11% of total backlog) by the Preservation Services Librarian.

As of June 30, 2014, the division of those decisions made from the preservation backlog is as follows:

Division of Backlog Volumes by Preservation Decision



Environmental Monitoring and Reporting

- Assisted with remodeling of Haas Arts Library exhibit cases with Conservation Services and SmallCorp
- Advised on environmental controls, set points, and systems for the following projects:
 - BRBL retrofit/ remodel
 - Preservation and BRBL 344 Winchester spaces
 - HSR move from 344 Winchester to Music Library
 - BRBL Swing Space: PRR and International Room
 - SML Stacks 4W

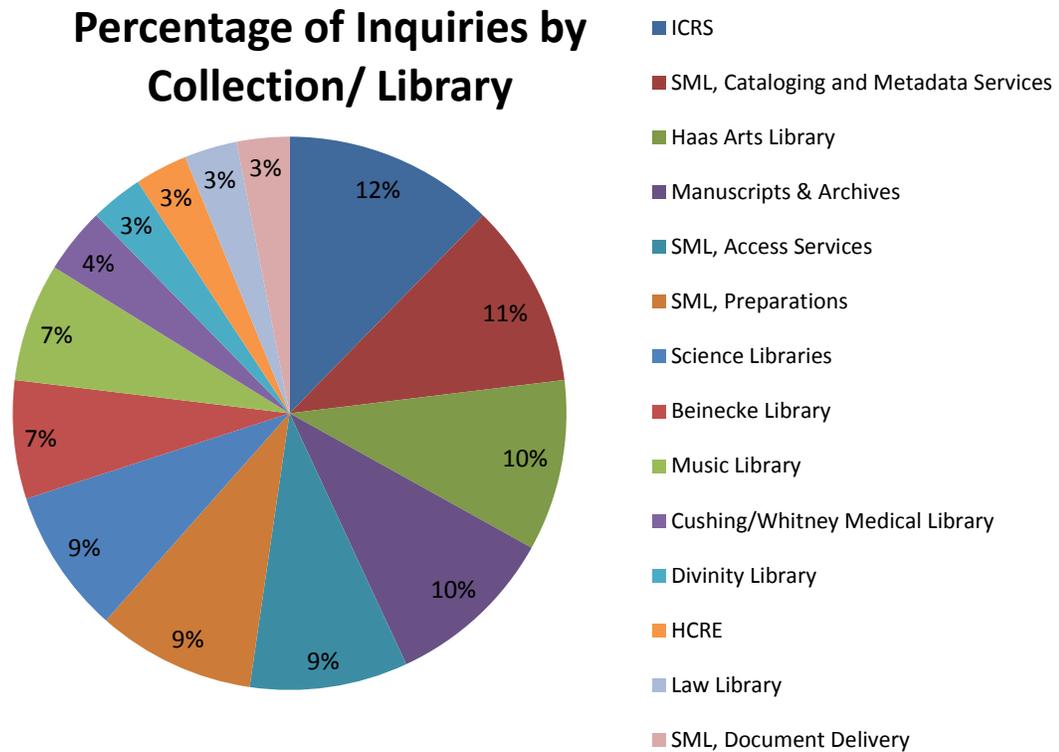
Collection Surveys

Kayleigh Bohemier, Science Research Support Librarian for the Center for Science and Social Science Information (CASSI), requested a preservation housing survey of the Geology Library Special Collections in an effort to assess what preservation needs were necessary in order to relocate the collections to the Library Shelving Facility (LSF). The findings have determined 1,870 items need some sort of housing before going to the LSF. The Preservation Department

staff will be advising and training Geology Library staff on executing the housing options listed in this report.

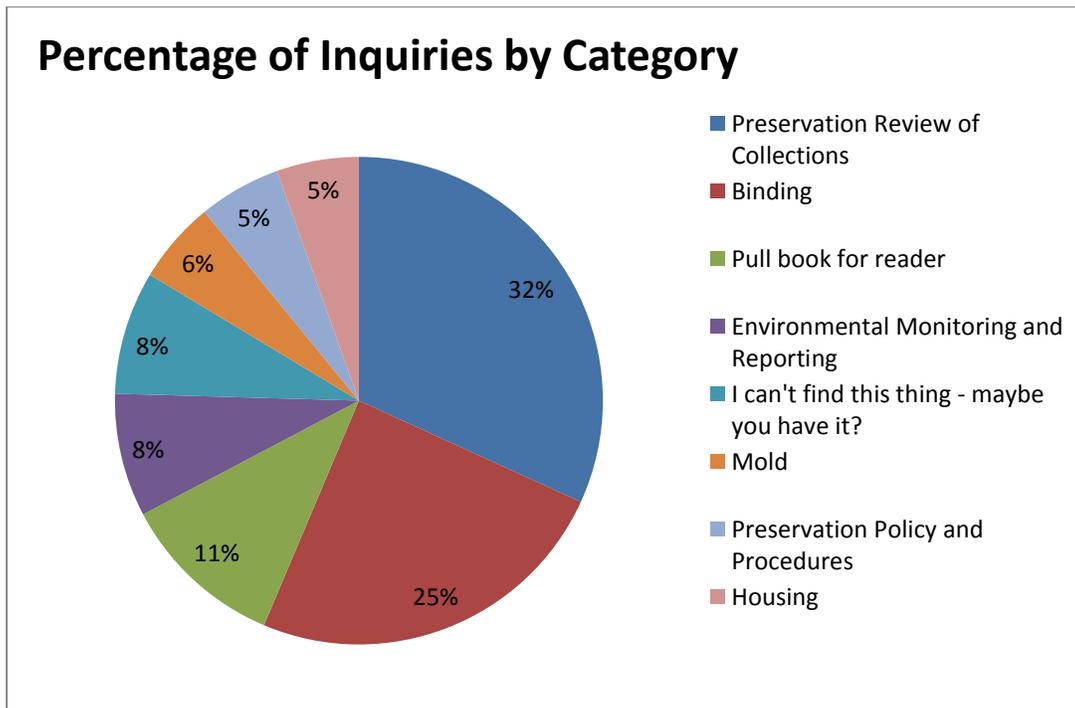
Education and Outreach

Preservation Services received and responded to 147 inquiries this fiscal year. Below is a pie chart demonstrating the division of the inquiries by collection/ library:



The highest number of inquiries came from **International Collections and Research Support (12%), Cataloging and Metadata Services (10%), Haas Arts Library (10%), and Manuscripts and Archives (10%)**.

In terms of categories of the inquiries, below is a pie chart of that division:



Thirty-two percent of inquiries involve the **preservation review** of circulating, reference, (and sometimes special) collections for library colleagues. The second largest category is queries about **binding (25%)**. The next largest category is **pulling a book for a reader** at **11%**. Inquiries that came from outside of the Library totaled 11.

CONSERVATION & EXHIBITION SERVICES (CES) – *Special Collections Conservation (SCC), Collections Conservation & Housing (CCH) & Exhibit Production Support (EPS)*
Christine McCarthy, Chief Conservator

Staffing as of June 30, 2014:

M&P Staff

Paula Zyats	Assistant Chief Conservator	(SCC)
Werner Haun	Assistant Chief Conservator	(CCH)
Marie-France Lemay	Paper and Photograph Conservator	(SCC)
Laura O’Brien-Miller	Conservator Lewis Walpole Lib	(SCC)
Kerri Sancomb	Exhibition Production Coordinator	(EPS)

C&T Staff

Karen Jutzi	Conservation Assistant	Level E	(SCC)
Zenaida Lantuch	Conservation Assistant	Level D	(CCH)
Ansley Joe	Conservation Assistant	Level D	(CCH)
Fionnuala Gerrity	Conservation Assistant	Level D	(SCC)

Overview

Conservation & Exhibition Services (CES) provides comprehensive program of services designed to maximize the utility of Library collection materials. The focus on the work of Conservation and Exhibition Services is first and foremost to maintain materials in their original formats—paper documents, prints and manuscript books, photographs, prints and drawings, maps, music scores and many other objects.

The program includes both conservation treatments on individual items and re-housing of items or collections into protective enclosures or boxes. There are dedicated staff and laboratory facilities for general collections (circulating and reference materials) and special collections (rare books, archives, and other unique non-circulating materials).

Conservation & Exhibition Services work is organized into following areas of program activity:

- Collection Conservation & Housing (CCH)
- Special Collections Conservation (SCC)
- Exhibit Production Support (EPS)
- Loan Support

Activities

This year has had two extraordinary events that have caused disruption to the workflow in CES. First, the positive, but time consuming, work with the architects and designers on the new spaces at 344 Winchester which was mentioned above in the Preservation Department Overview. The second event, shortly before the holiday recess 2013, was a pipe break in the conservation lab (mentioned above in Emergency Responses) which required the lab to be emptied of staff and collections while recovery and repairs were made to the space. This flood resulted in 4” of water on the lab floor followed by a second break with 6” of water. We were

fortunate in that no collection materials in the lab were damaged as a result of these pipe breaks. Staff were displaced for two weeks prior to holiday recess and inconvenienced subsequently so that repairs could be completed later in March 2014. During both occasions no treatment was possible.

In spite of the disruptions and time required in addressing both events, CES has continued to produce a tremendous amount of treatments, housings and exhibits.

Special Collections Conservation (SCC)

SCC is dedicated to improving the condition of special collection materials while maintaining individual item's historical, evidentiary, aesthetic, and/or research value. The range of treatment in maintaining special collections can be minimal repairs to stabilize an item to complete paper repair, flattening, cleaning, disbinding of a volume, resewing of a volume, repair of a volume's covering material, and even the cover boards themselves, as well as every possible variation between those two extremes for a variety of materials—photographs, manuscripts on vellum or paper, prints, and bound volumes of all sorts. 574 volumes came through SCC in FY14 for review and treatment. Below are a selection of the types of materials and issues that the SCC has addressed this year.

BRBL, Blue: Color & Concept

This exhibition ran from January to April 2014. The concept was to organize an exhibit around the color blue. This thread would link all the exhibit objects gathered from across BRBL collections revealing a 'unique cultural history of the color blue in nineteenth- and twentieth century arts and letters'¹. As blue is one of the most light sensitive colors, this exhibit engaged the conservators quite early. As part of this there were micro-fading test done on 104 object proposed for the exhibit. This involved working with Paul Whitmore, paper scientist, at the Center for Conservation and Preservation, Institute for Preservation of Cultural Heritage, West Campus. Conservator and curator worked together in selection of materials and then setting up monitoring of the objects selected for exhibition. Pages were turned and items swapped out during the course of the exhibit in order to limit any visible change in the object.

Color monitoring for exhibition has become part of the norm when considering objects for exhibition.

BRBL papyrus collection

The papyrus collection consists of over 7,000 unique 'titles'. The BRBL's papyrologist is working with the assistant chief conservator. While the involvement of conservation in the separation and flattening of the papyrus is critical, the housing, while reviewed and established by CES, is being carried out by the papyrologist as she assembles the fragments. It is anticipated that this rehousing project will continue into FY16.

¹ Taken from the Blue Checklist <http://www.library.yale.edu/~nkuhl/BlueChecklist.pdf>
Preservation Department Annual Report FY14

BRBL Jonathan Edwards NEH project

The Jonathan Edwards collection consists of writings, correspondence, documents, printed materials, photographs, and artifacts documenting the lives and work of Jonathan Edwards and his family. The National Endowment for the Humanities grant was to digitize the collection. CES completed a condition review and stabilizing treatments to facilitate the digitization of the collection; 1663 individual items were reviewed with 424 items treated and/or rehoused.

BRBL, Portolan Charts

These are navigational maps on based on compass directions and estimated distances observed by sea captains. These had been identified for an exhibit, *Power of Pictures*, part of BRBL's 50th anniversary celebration. The maps are on parchment and date to the 16th century. Two were identified as needing treatment—stabilizing pigments and flattening. One was exhibited and another two of the collection were rehoused.

Lewis Walpole Library, *Attitudes*

This volume had been disbound for an exhibit. Upon return, the volume was treated and rebound. While this is not a common practice, there are times when because of the condition of the volume and the lack of original materials associated with the binding it is warranted.

Maps collection, *George Washington Atlas*

This collection of maps used by George Washington had at some point in time after Washington owned them been bound into a single folio volume which had caused a great deal of damage to the maps. In FY2008 the atlas was taken apart and much of the early repairs removed and extensive treatment done on those requiring such. This was a very large, complicated project. This year the last 14 maps received minor treatment and were then each housed by SCC staff in special designed housing that allows them to be safely handled and viewed.

And while Collection Conservation & Housing does the bulk of the custom housings SCC was responsible for 284 housings.

Collection Conservation & Housing (CCH)

CCH provides preservation and conservation services for the Library's open stack and circulating collections through a program of physical treatments. This covers the range of simple repairs such as paper repairs or tip-ins of loose pages to more involved treatment of disbinding a damaged book and repairing the sheets, rebinding and either repairing the cover or making a new cover. During fy14 CCH treated 877 volumes from the general and circulating collections.

CCH is also responsible for providing a variety of housings and protective enclosure solutions for all library and archives collections. While there were over 4,000 housings created for both general and special collections materials within CCH, three projects demonstrate the breadth of the work done in the unit:

BRBL, *Thangkas*

These hanging scrolls or fabric temple banners consist of a painted picture panels (called *mélong* in Tibetan, which means 'mirror'), usually depicting Buddha's, mandalas, or great practitioners, are sewn into or bordered by a textile mountings. These required a customized interior to standard size commercially available boxes that would allow the painted part of the banner to lie flat but the fabric portion to be rolled thus allowing for a more manageable sized container. The proper rehousing of 33 Thangkas means the entire collection of 77 Thangkas has been rehoused.

Haas Arts Library, Special Collections, *Merriam-Webster Dictionary Printers Blocks*

This collection of over 12,000 metal blocks used in the printing of the illustrated Merriam-Webster Dictionary in 1934[?] are being moved from the old printing room to storage at LSF. In order to safely move and store the blocks once again standard size commercially produced boxes have been customized to accommodate the small blocks. Approximately half of the collection has been re-housed.

General collections, pamphlets

Yale Library has a tremendous collection of pamphlet materials that are being 'rediscovered' through cataloging projects. These materials will be sent to LSF; some will be circulate only to supervised reading rooms due to their fragility or rarity. Through the efforts of student assistants working in CCH the pamphlets are put into special envelopes that provide protection or into 4-flap binders.

Exhibit Production Support (EPS)

EPS works closely with SCC. As a team they help exhibitors identify items appropriate for exhibit. Once identified EPS goes to work establishing a schedule and coordinating the production of exhibitions. This includes working to protect items on display by determining how best to show them while preventing potential damage; arranging for conservation treatments prior to display; advising on the use of facsimiles in place of vulnerable materials; production of specialized cradles, mats, and other mounts; and expert installation and de-installation of exhibits. Over the last year EPS coordinated 19 exhibits in Sterling Memorial Library, Beinecke Rare Book & Manuscript Library, Haas Arts Library, and Lewis Walpole Library. Over 1,300 pieces were involved in the exhibits.

In March 2014 an Exhibits Task Force led by Christine McCarthy and Kerri Sancomb was formed. The task force put together an excellent final report delivered in October 2014. The goals of the task force were to establish exhibition guidelines, policies and procedures that would guide the Library exhibits program(s).

Of the 19 exhibits completed *Blue: Color & Concept* at the BRBL is a good representation of the coordination within the Department and across the University in order to execute a successful exhibition. The exhibition ran from January to April 2014 however, planning for this began the previous July. Conservators arranged for the micro-fading tests of 104 objects and there was a re-assessment of light levels in the ground floor cases and the mezzanine curved cases and vitrines. Matting and framing of objects began in the fall. Also the arrangements to create facsimiles of especially sensitive 'blueprints' were undertaken. Cradles were matched to books that were part of the exhibition. The exhibition was mounted over a period of days. During the entire run of the exhibition prints were monitored and a number of prints were switched out and pages turned so as to limit exposure. This was coordinated with EPS and conservators.

While this exhibit may have required a bit more ongoing maintenance it was not unusual in the time required to prepare and execute nor in the care taken in monitoring the environment in which the objects will be exhibited. During this same period four other exhibits were mounted—two at BRBL, one at Sterling Memorial Library and one at the Haas Art Library with eight additional exhibits in various planning stages.

Loan Services

The Library also loans materials for exhibition across the University as well as to institutions around the world. As with any material going on exhibit, items are reviewed for condition by conservators. Conservators document the condition and assess on the viability of safely exhibiting the item when requests come in. If the item is to be exhibited there is a review of both the documentation describing the environment at the venue, and of travel arrangements. When the item is returned an assessment of its condition is completed to determine if there have been any changes. All this is documented.

This past year 22 sites requested items for loan. These ranged from Yale University Art Gallery to museums and libraries in New York City and Europe.

- Grolier Club exhibit – *One Hundred Books Famous in Children's Literature*. Prepared mounts for books being loaned
- Lower Saxon Satate Museum, Hanover Germany – *Hanoverians on Britain's Throne*. Condition reports done for items loaned
- Yale Center for British Art – *Figures of Empire*. Completed mounts, housing and mount for book loaned
- Lebenbachhaus, Munich Germany – *Florine Stettheimer*. Worked with painting conservators in reviewing paintings and preparing them for travel

These represent a small cross section of the types of materials loaned and the exhibits in which YUL materials appear.

Consultations & Teaching

Consultation is an important aspect of any conservation program. These consultations range from discussion of proposed treatments whether conducted in-house or through an outside vendor; these are distinct from the standing reviews done on a regular basis. Other

consultations are connected to exhibits or storage such as, assistance with choosing items appropriate for exhibiting and housing designs and concerns around environment. Of the total of 237 identified consultation sessions, CES conducted 79 or about one third with the balance in Preservation Services.

Representative of working with curators/librarians and outside vendors is the Arcadia project to review the entire collection of North African Jewish manuscripts. Working with Northeast Document Conservation Center an onsite survey was planned, coordinated and executed. Results then identified particular pieces that would be treated and digitized.

In the area of environment and exhibits, CES worked with Preservation Services & EPS, to research and coordinate the Haas Art Library's modification of Haas exhibit case lighting.

Teaching and outreach takes many forms from formal lectures to small groups with a specific need; such as, reviewing and advising on handling practices for rare materials with Yale Photo & Design with regards to the Jonathan Edwards digitization project. Below are a few representative activities of more formal events.

- Thangkas & lecture – Chief conservator discussed the physical condition of the thangkas and the conservation approach to their housing and use for an anthropology class October 2013.
- L Gillman Law Library, *Reflections on Bookbinding: Using New Technologies to Study Historical Bindings* exhibit (and lecture mentioned above)
- *Traveling Scriptorium* – at least three separate classes ranging from 60-90 minutes were led by CES staff using the Traveling Scriptorium materials. In addition, there is a [blog](#) associated with the Traveling Scriptorium and planning to use material from the kit were included in a BRBL fall 2014 exhibition, *Middle English*.
- Nehru Memorial Museum & Library, Delhi, India – showcased to the YUL community the work done with Tara Kennedy, Sarah Calhoun and Susan Gibbons while in India at the Library-SARC Staff Appreciation event.

DIGITAL REFORMATTING & MICROFILMING SERVICES (DRMS)

Robert Klingenberger, Head

Staffing as of June 30, 2014:

Stephanie Sherry	Acquisitions Assistant	Level D
Agnes Wnuk	Cataloging Assistant	Level C
Edith Fortes	Acquisitions Assistant	Level B
Jef Wilson	Technical Assistant	Level B

Overview

Digital Reformatting & Microfilm Services (DRMS) in the Preservation Department provides a spectrum of services with regards to the preservation of information in volumes and on obsolete media. Through working with a wide variety of vendors DRMS preserves and provides access to the intellectual content of both the written word and audio & visual media.

Activities

Arcadia Year 4: Joel Sumner Smith digitization project completed with assistance of Arcadia funding for temporary employees (Andrew Hungaski during April through June of 2013 FY 2013-14, Larry Martins from June 2013 – February 2014, and Fawaz Alwash from July – November 2013). This project included both the completion of the Sterling Memorial Library collection and the complete Beinecke Rare Books & Manuscript Library collection of items. The determination of image capture and processing requirements was made when the project was first launched, so those standards were maintained for the sake of project continuity. As such, the preservation master images are 8 bit greyscale rather than 24 bit color for the Sterling materials. Beinecke collection materials were captured in color with a copy of the color master images being transferred to BRBL for their workflow.

Kissinger Collection: Assistance in the preparation of workflow logistics for the project to digitize and create print surrogates for the Henry Kissinger Collection continued with site visits to the selected vendors (Crowley for digitization and Bridgeport National Bindery for the printing) and with the design of the workflow tracking tool which consists of elements taken from the Preservation Department's proposed workflow tracking tool for Item Condition Evaluation (ICE).

In August, a *Request for Information and Proposal (RFI&P)* for digitization of Yale University Library's Bound General Collections was sent to nine vendors. Responses were received from seven including Backstage Library Works, Bridgeport National Bindery, The Crowley Company, Conservation Services Associates, Document Conservation Services (The H.F. Group), Northern Micrographics, and Trigonix. Two vendors were chosen: Backstage as primary and Trigonix as secondary based on price, ability to meet specified capture and image processing requirements, and ability to meet specified throughput expectations among other criteria. Printing and binding of those items deemed appropriate for reprinting after digitization will be handled by the Library's Commercial Binder.

Arcadia Year 5: Benny Goodman Film Collection was proposed by the Music Library and approved funding for a non-digital reformatting project which focused on the creation of new film prints on polyester film stock. The magnetic analog sound components of the collection which are the soundtracks to the film components were approved for digitization with the intention of a second phase of the project to include the determination of which soundtrack goes with which film and the creation of a composite film with corresponding soundtrack once the correct assignments are made. The films were sent to ColorLab and the sound components were sent to George Blood.

Arcadia Year 5: Item-Condition-Event (ICE) (Note the name adjustment from the original item condition evaluation) began planning in February with a project launch set for June 2013 once the Kissinger Workflow system components were fully operational. This project was funded by Arcadia which had a yearly project end date of August 31 and Preservation Department funds. The consultant, John Coffey, and the forms and database development vendor, Qdabra, Inc., were both retained from the approved Kissinger workflow project since the same architecture would be employed and some forms would potentially be adapted from Kissinger to ICE use. Enterprise Systems Unit of YUL IT provided the web services capability to extract information from the Voyager catalog database and to change pseudo-patron and place call slips and recalls on catalog items.

Yale University Audio-Visual Advocates Group was formed in January 2013 and met through December 2013. The purpose was to exchange information and build a common understanding of the need to address the condition of Yale University's growing body of audio-visual content on obsolete and deteriorating media. The group successfully advocated for AVPS to be brought in and with funding from Beinecke Rare Book & Manuscript Library, the Fortunoff Project, and the Preservation Department conducted interviews and brief collection evaluations. Their results were presented to the LEC which recommended a director-level group be formed to determine next steps. At that time the Advocates group adjourned so as to not compete or distract from the directors' efforts.

DIGITAL PRESERVATION SERVICES (DPS)

Euan Cochrane, Digital Preservation Manger

Overview

Digital Preservation Services (DPS) provides services and support for preserving content that is already in digital form. This can be content produced through library digitization projects (digitized), content produced by external organizations and received at the library in digital form (received digital), or content that was created or "born" digital such as text documents, databases, audio-visual material or Computer Aided Design (CAD) content (born digital).

DPS is currently focused on establishing comprehensive infrastructure to maintain access to digital content for as long as it is needed. While this process is underway DPS is offering consulting services to aid with digital preservation related activities including:

- The acquisition of old digital content (e.g. preservation considerations, disk imaging, content recovery from old digital media)
- Access to old digital content (e.g. help for working with migration and emulation tools or using original hardware to interact with old content)
- The creation of digital content for long-term preservation (e.g. preferred formats)
- Advice and guidance for preserving digital content

Activities

This being the first year of this position and unit it was spent evaluating the current state of digital preservation within the Library system; meeting with and presenting to numerous groups across campus to introduce this new unit, raise awareness of digital preservation challenges and opportunities, and to develop an understanding of where digital preservation services would fit in within the Yale University Library context. These meetings helped to build relationships and networks in order to establish the position of the Library's digital preservation services across the university.

A report was produced summarizing this work to understand the current state of digital preservation services within YUL and included some key recommendations. These recommendations were for YUL to:

1. Establish a vision for digital services within the YUL system
2. Establish a vision for digital preservation services within the YUL system
3. Establish the scope (size and rate of growth) of future digital preservation storage requirements
4. Develop a business case to fund digital services (including digital preservation services) within the YUL system
5. Establish intellectual management, bit preservation, content acquisition and active preservation services and infrastructure
6. Investigate the feasibility and benefits of centralizing digital services

The report was well received and served to raise awareness of the coming challenges throughout the Library; it has served as a basis for other work through the year. It was a

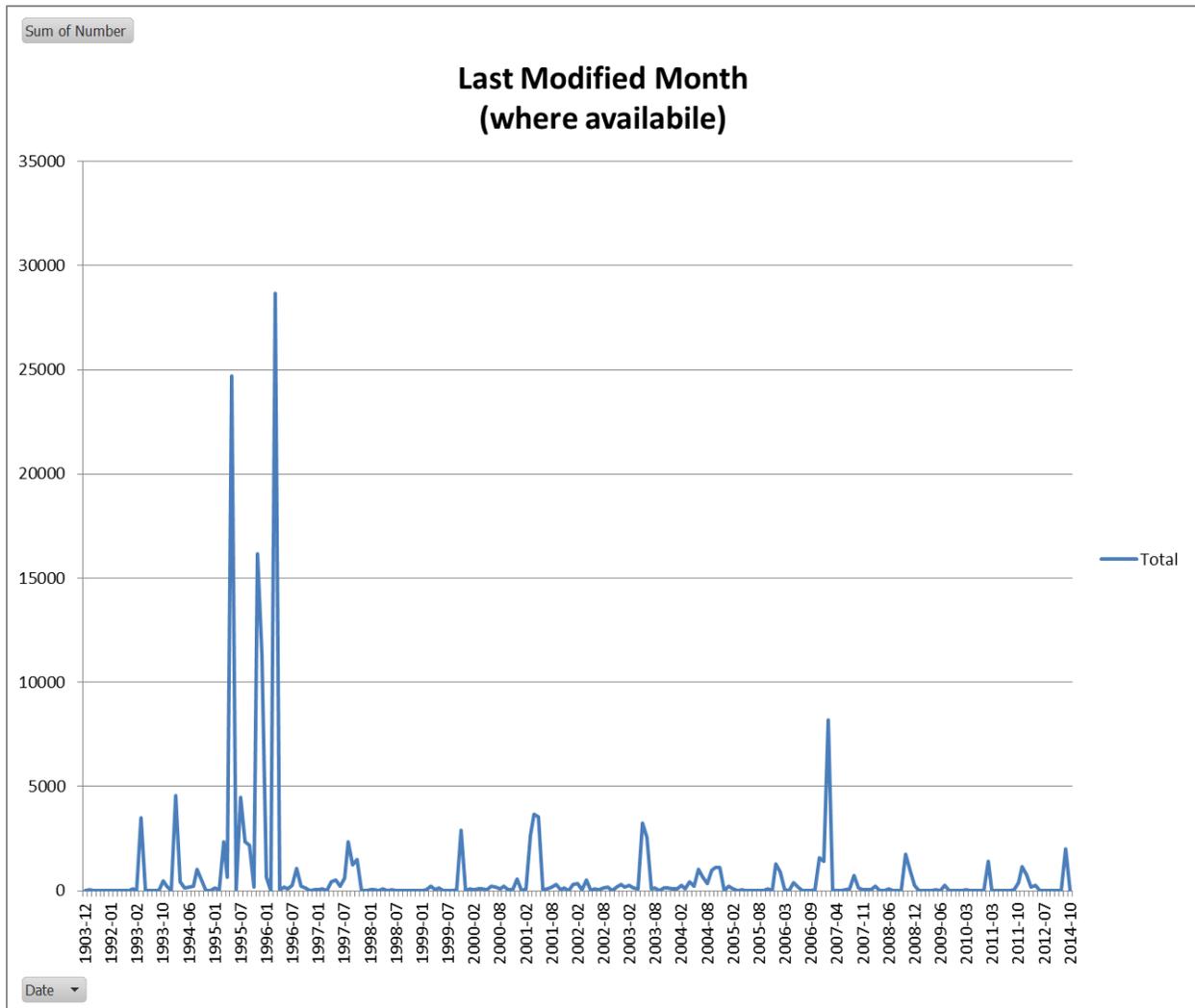
foundation for a number of tasks undertaken by the Digital Repository Infrastructure Committee including the development of an indicative cost model for the provision of basic digital preservation services at YUL. The cost model provides a range of estimated costs for preserving 1 gigabyte of data for one year. The costs that were modelled were averaged over five years and the final report of the group included different possible costs that varied based on the size of the collection. An important finding of the work was that the greater the volume of data being preserved, the less it will cost per unit of data (e.g. per gigabyte) per year. This implies that it may be advantageous for the Library to partner with other institutions, (such as on campus partners like the Law Library, or off-campus partners such as other universities in the region) to reduce each institutions costs for undertaking preservation of their valuable digital assets. The cost models produced will serve to aid in planning across the Library in coming years, and will be particularly useful in understanding the total cost of ownership of digital content we may wish to create (e.g. through digitization) or acquire in the near term.

A significant step to realizing recommendation 5 of the report was the initiation of work to develop requirements for digital preservation services and to evaluate out-of-the-box software systems that might fulfill those requirements (both commercial and open-source code systems). This work was begun in June and has involved procuring the services of a consulting firm, Audio Visual Preservation Services (AVPreserve) to hold workshops with stakeholders across the wider Yale community. This broader conversation was held in order to ensure that any prospective partners would have their needs met by any possible solution that might be implemented. AVPreserve also will perform an independent options analysis to make recommendations on the most appropriate path for YUL to take in order to establish its digital preservation services. The workshops that have been held were well attended and positive feedback was received. The results of this requirements analysis and options evaluation work will be made available by the end of the 2014 calendar year, with an aim of making a decision about the best path forward by the beginning of the new year.

Late FY14 Digital Preservation Services facilitated a visit by a representative from the BitCurator Digital Forensics project. BitCurator is the name for a project that has produced a suite of software tools with the same name. The software tools enable practitioners to perform digital forensics activities on their digital content. These can include capturing forensic disk images (images that contain all possible content including deleted files), analyzing the content of disks and files, and identifying significant content within the disks and files, such as credit card numbers and social security numbers. The BitCurator representative conducted a full day workshop teaching attendees about the BitCurator software suite. The workshop was well attended by many people from around Yale and the wider community. YUL has since joined the BitCurator consortium have been using BitCurator as part of a project to take the first steps to preserve born-digital content in the general collections.

The work to preserve born digital content in the general collections began with the development of a project plan. The plan outlined the work needed to recover data from old media in the general collections (floppy disks, CD-ROMs). This plan has been implemented and

has involved acquiring and configuring hardware and software to make back-up disk images, hiring a student, and developing a workflow to retrieve media from the stacks and return it to an appropriate location once the data has been recovered from it. The first 200 CD-ROMs disk images that were produced via this process have been analyzed and some interesting results uncovered. The chart below shows the range of “last modified” dates associated with the files stored on the CD-ROMs:



This shows an interesting spike around 1995-1996.

The first 200 CD-ROMs imaged also contain just over 173,000 files with many different formats. There are 136 unique file formats represented in this small set of CD-ROMs and 43 different file format versions within these. Many of these file formats are particular rare and therefore will be challenging to preserve, such as:

- Adobe Multiple Master Metrics font file
- Adobe PostScript Font Metrics file
- Corel Photo-Paint Image
- Corel Wavelet Compressed Bitmap
- DataFlex Query Tag Name
- dBASE Text Memo
- Truevision TGA Bitmap
- Ventura Publisher
- Verity Collection Document Dataset Descriptor Style Set
- WordPerfect for MS-DOS/Windows Document
- WordPerfect for Windows Document
- Write for Windows Document.

There are thousands of CD-ROMs in the general collections. If the first 200 are representative of the remainder of the collection then we likely have an interesting and unusually rare collection of previously overlooked born-digital content to preserve for the future.

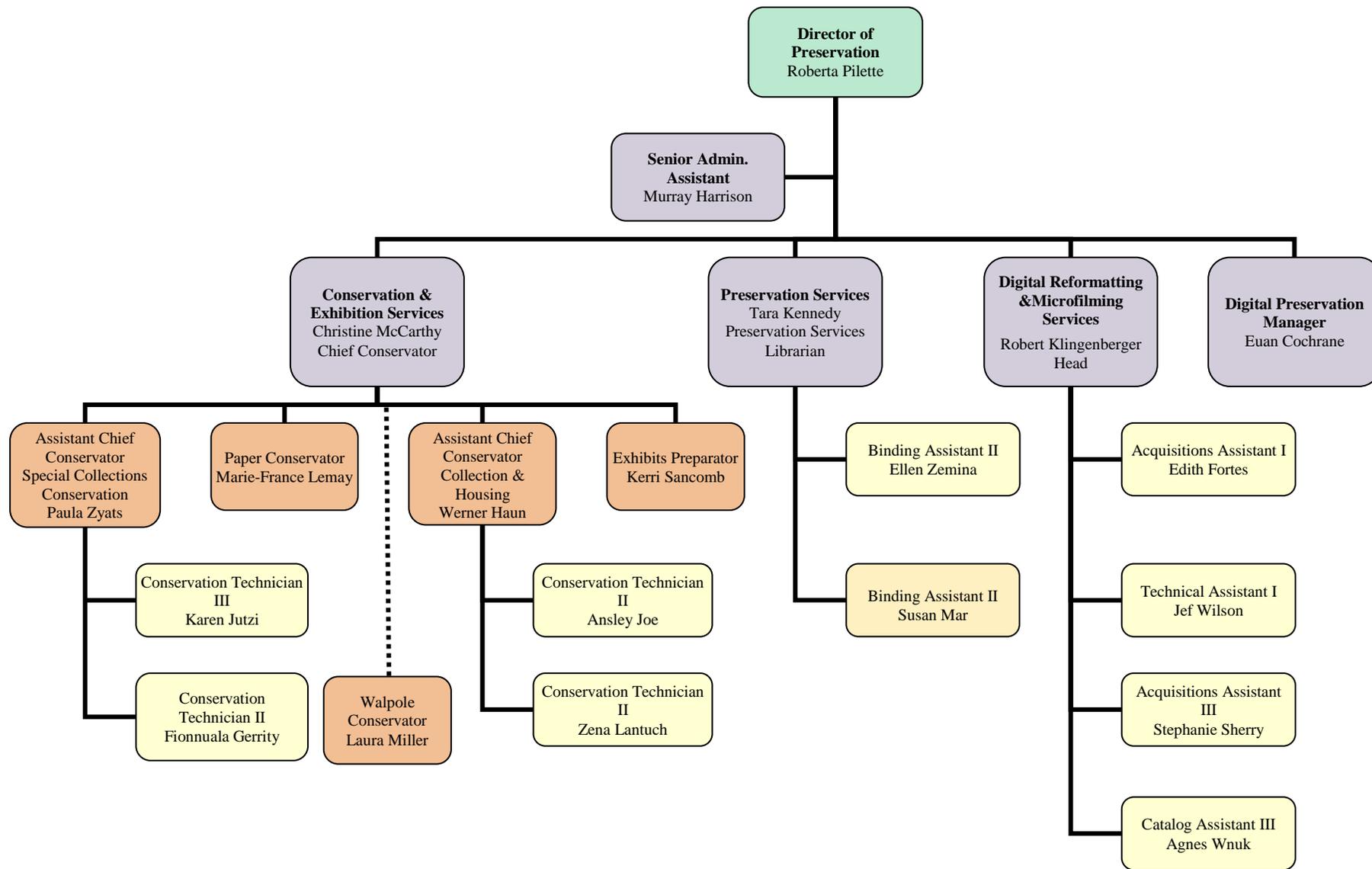
One of the options we are exploring for enabling the efficient preservation of this born digital content is the use of Emulation tools. Earlier this year we facilitated a visit by a visiting researcher from the bwFLA Emulation as a Service (EaaS) project. The researcher presentation to the Library and visitors was well received. The presentation outlined the work the team in Germany have been doing to develop a tool to simplify the use of emulation as a digital preservation strategy. Emulation has traditionally been seen as a complicated or expensive solution for solving the digital preservation challenge but the bwFLA project has developed tools which both greatly simplify the use of emulation to provide access to old digital content to library users and also greatly reduced the per-unit cost of providing such services.

A pilot of the bwFLA Emulation as a Service software solution was installed on excess servers provided by Library IT. This software provides access to emulated computer environments (e.g. an installation of Windows 95 or Mac OS 7 via a web browser. This has been demonstrated to many groups across campus and a lot of interest has been shown in implementing this in a production environment. An interesting use of the service that will be explored in the coming year is the possibility of providing remote access to customized modern software environments via a web browser. The bwFLA software makes it easy to set up, for example, a modern Windows 7 environment and add some content to it that a user would like to share, along with any customized software that might be needed for accessing the content, at which point the user can save that customized environment and receive a URL which can be shared with patrons. Patrons can then click on the URL and be presented with the environment that they can fully interact with, but cannot copy content from it. This comes closer than ever to fulfilling the desire for a “virtual reading room” that patrons can access and interact with remotely but which can still enable access restrictions to be complied with.

To support the use of emulation as a long term preservation strategy we have begun to contact software vendors to ensure Yale is able to legally use obsolete software in emulated

environments. Progress has been made with Microsoft where clarification of our license has uncovered an ability to use obsolete Microsoft software in many contexts, including in reading room terminals and in teaching contexts.

Appendix I
Program and Staff Organization Chart
 June 30, 2014



Appendix II
Preservation Department Statistics
Fiscal Years 2013-2014

NEEDS IDENTIFIED	Total # Items from all Library Collections	
Reviewed for Preservation Action(s)	FY 2013	FY 2014
<i>Total Items Reviewed:</i>	25,762	28,385
<i>Percentage Change Previous Yr (+/-)</i>	65%	9%
<i>% of overall Library Collection</i>	0.184%	0.203%
NEEDS ADDRESSED	Total # Items from all Library Collections	
Preservation Action(s) Completed	FY 2013	FY 2014
<i>Conserved/Rebound</i>	13,934	9,557
<i>Housed</i>	3,851	5,716
<i>Digitized</i>	304	1,347
<i>Total Items Work Completed:</i>	18,089	16,620
<i>Percentage Change Previous Yr (+/-)</i>	69%	-9%
<i>% of overall Library Collection:</i>	0.129%	0.119%
<i>% of Items identified:</i>	70%	59%
	Total for all Library Collections	
Preservation Exhibition & Loan Support	FY 2013	FY 2014
Exhibitions supported	33	19
Items exhibited	1,312	1,367
Loans supported	26	22
Items loaned	83	26
<i>Percentage Change Previous Yr (+/-)</i>	86%	-1%
	Total # for Library, Campus, and General Public	
Preservation Outreach & Education	FY 2013	FY 2014
Consultations & Inquiries	341	237
Outreach/Teaching Sessions	24	9
Number of attendees	508	113
Tours	11	18
Number of Visitors	35	49

Appendix III
Events Requiring Emergency Response and Recovery
FY 2013-2014

Date	Where	Library Materials Affected	Library Staff hours used in response & recovering materials (hours)
7/5/2013	SML Cataloging	Books	.5
12/4/2013	SML Conservation Lab, Music Library, Microtext Reading Room	Music CDs and Books	306.5
12/20/2013	SML 4 th floor wing	Books	7.5
1/2/2014	Divinity Library	Books	3.5
Total Library Staff Hours:			318

