

SI 581: Preserving Information – Syllabus Winter 2007

Class Day & Time: Monday 9:00 a.m. – 12:00 noon

Location: 311 West Hall

Credits: 3

Instructor: Shannon Zachary; additional lectures by Paul Conway, Margaret Hedstrom, and Nancy McGovern

Office: 417D West Hall and 3204 Buhr Bldg

Phone: (734) 763-6980

Email: szachary@umich.edu

Office Hours: Mondays 12-1 and by appt

Overview / Introduction

Preservation can be defined as the acquisition, organization, and distribution of resources (human, physical, financial) to ensure the protection of information with continuing value for access by present and future generations. Preservation encompasses planning and implementing policies, procedures, and processes that together prevent further deterioration or, when appropriate, renew the usability of selected groups of materials. Preservation management is most effective when planning precedes implementation and when prevention activities have priority over renewal activities.

The purpose of this course is to teach students the basic principles, policies, and procedures for managing information through its life cycle and protecting that information from loss, damage, deterioration, destruction, and obsolescence for as long as it has value. There will be considerable emphasis on management and decision-making and current preservation issues, particularly preservation of digital information and the use of digital technologies for preservation reformatting. The course will also introduce current methods and best practices for extending the useful life of information in a wide variety of media.

The format will be lectures and discussion, lectures by visitors, and a visit to campus preservation facilities. There will be individual assignments and one group project. The course is designed as an introductory overview. Students wishing to gain more experience in preservation management should seek additional training through internships, apprenticeships, workshops, and other practical engagement activities.

Requirements

Class attendance and adequate preparation: Attendance is mandatory. Each student is expected to attend all classes. Students are also expected to complete all required readings. This is especially important since a portion of the class sessions will be discussions about or exercises based on the readings. There will also be class-specific assignments throughout the term.

Participation in class discussions is a sizable portion of the grade. Students should be prepared to enter into class discussions and to raise questions reflecting their reading and interests. There will also be small group presentations on cases or investigations.

Written Assignments

Preservation Assessment/Survey: Each student will complete a preservation assessment survey of an institution/collection. **Due date: February 19th, 2007, in class.**

Reformatting Exercise: Students will complete a digitization / reformatting assignment that will be handed out in class. This will involve a discussion of the metadata to be collected, preparation time and extent, file formats for information capture, a calculation of the dpi for image capture based on the Cornell equations, file sizes for the master and use copies, and identification an analysis of the significant detail and stroke. **Due date: March 19, 2007, in class.**

Grant proposal: This is a group project. Teams of 4 or 5 will develop a RFP or grant proposal for a reformatting project. Students will present their proposals on either Monday April 16 or 23, 2007; **Proposal Due Date: Tuesday April 24, 2007, 9:00 a.m.**

Evaluation

Evaluation will be based on the following factors:

Attendance, class preparation, and participation:	20%
Preservation Assessment/Survey	30%
Reformatting Exercise	20%
Final Grant Proposal	30%

Readings

The course will make use of two primary texts and a number of articles. The primary texts are the Northeast Document Conservation Center (NEDCC) Preservation Leaflets <http://www.nedcc.org/resources/leaflets.list.php> and *Handbook For Digital Projects: A Management Tool for Preservation and Access*, 1st Edition, Maxine K. Sitts, Ed., Andover, MA: NEDCC, 2000. [\[NOT AVAILABLE AS OF JANUARY 2007\]](#)

All other readings are either on the World Wide Web or available through University Reserves' Electronic Reserve Service <http://www.lib.umich.edu/reserves>

Resources

Lecture slides, additional resources for class assignments, and weekly discussion topics will be posted on CTools by start of class. The CTools Portal URL is: <http://ctools.umich.edu>

Academic Integrity

Academic honesty and responsibility is fundamental to our scholarly and professional community. Students are responsible for maintaining high standards of conduct while engaged in course work, research, dissertation or thesis preparation, and other activities related to academics and their profession. It is expected that students will abide by the provisions of the Rackham Graduate School Policy Statement on Academic and Professional Integrity:

<http://www.rackham.umich.edu/StudentInfo/Publications/GSH/html/APPB.html>

Students with Disabilities

Any student who feels that he/she may need an accommodation for any sort of disability, please see me during office hours or email me to make an alternative appointment.

Winter 2007 Schedule

January 8. Shannon Zachary: Overview of Preservation, Preservation Assessment

Course overview

Basic definitions and concepts

Scope of the preservation problem

Threats to longevity (destruction, damage, deterioration, obsolescence)

Literature and preservation resources

Introduction to collection needs assessment surveys

A Public Trust at Risk: The Heritage Health Index Report on the State of America's Collections. Summary Report. Heritage Preservation, 2005.

<http://www.heritagepreservation.org/HHI/summary.html>

American Library Association Preservation Policy, 2001 revision. [under the heading Guidelines select ALA Preservation Policy]

<http://www.ala.org/ala/alctscontent/alctspubsbucket/webpublications/alctspreservation/alapreservationp/alapreservation.htm>

Roosa, Mark. Some Thoughts on the Race against Time and Inherent Vice: Library Preservation in the Late Twentieth Century. In *Who Wants Yesterday's Papers*, ed. Yvonne Carignan, Danielle DuMerer, Susan Klier Koutsky, Eric N. Lindquist, Kara M. McClurken, and Douglas P. McElrath. Latham, MD, Toronto, and Oxford: The Scarecrow Press, 2005. pp. 23-35

<http://www.ifla.org/IV/ifla68/papers/134-109e.pdf>

In class:

Video: The Preservation Survey (10 mins)

January 15. Martin Luther King, Jr. Day. NO CLASS TODAY

Email Shannon Zachary by end of day January 16 to confirm collection for survey assignment.

Patkus, Beth. *Assessing Preservation Needs: A Self-Survey Guide*, Andover, MA: NEDCC, 2003. <http://www.nedcc.org/resources/print.php>

An Audit Checklist for Certifying Digital Repositories [draft for public comment]. Research Libraries Group and National Archives and Records Administration. 2005.

http://www.rlg.org/en/page.php?Page_ID=20769

January 22. Shannon Zachary: Physical Composition and Deterioration of Paper-based Materials

IDENTIFYING PAPER AND MEDIA EXERCISE DUE

Document carriers: paper and others (parchment, papyrus, etc.)

Media: writing, printing, and copying

Bookbindings: leather, vellum, cloth, paperboard

Shahani, Chandru J., and William K. Wilson. Preservation of Libraries and Archives. *American Scientist* 75 (May/June 1987) pp. 240-251. (Keep the date of publication in mind as you read!)

Hoel, Ivar A. L. Standards for Permanent Paper 64 th IFLA General Conference August 16 - 21, 1998. <http://www.ifla.org/IV/ifla64/115-114e.htm>

Basic Care of Books. CCI Notes 11/7. Ottawa: Canadian Conservation Institute, 1995.

http://www.cci-icc.gc.ca/publications/ccinotes/index_e.aspx

Ritzenthaler, Mary Lynn. Chapter 3: Nature of archival materials. In *Preserving Archives and Manuscripts*. SAA Archival Fundamentals Series. Chicago: Society of American Archivists, 1993. pp. 19-43.

In class:

Identifying paper and media exercise

January 29. Shannon Zachary: Physical Composition and Deterioration of Photographs, Audio-visual Media, and Sound Recordings

IDENTIFYING PHOTOGRAPHS AND ELECTRONIC MEDIA EXERCISE DUE

Photographic media

Motion picture film

Analog sound and video recordings

Digital sound and video recordings and digital copies

Required:

Norris, Debbie H. Appendix R: Curatorial Care of Photographic Collections [1996]. In *Museum Handbook, Part I: Museum Collections*. Washington, D.C.: National Park Service, 2000. <http://www.cr.nps.gov/museum/publications/MHI/mushbkl.html>

Library of Congress. Cylinder, Disc and Tape Care in a Nutshell. Washington, DC: Library of Congress, 2002. <http://lcweb.loc.gov/preserv/care/record.html>

A Consumer Guide to Traditional and Digital Print Stability. Image Permanence Institute. 2003. <http://www.imagepermanenceinstitute.org/>

Browse the following:

Van Bogart, Dr. John W.C. *Magnetic Tape Storage and Handling: A Guide for Libraries and Archives*. Washington, D.C.: Commission on Preservation and Access, (June 1995). <http://www.clir.org/pubs/reports/pub54/index.html>

Byers, Fred R. *Care and Handling of CDs and DVDs: A Guide for Librarians and Archivists*, Washington, D.C.: Council on Library and Information Resources, 2003. <http://www.clir.org/pubs/abstract/pub121abst.html>

The Film Preservation Guide: The basics for archive, libraries, and museums. San Francisco, CA: National Film Preservation Foundation, 2004.

<http://www.filmpreservation.org/> (Click on **preservation basics** and select The Film Preservation Guide.)

In class:

Identifying photographs and electronic media exercise

February 5: Shannon Zachary: Buildings and Storage

ANALYSIS OF ENVIRONMENTAL DATA EXERCISE DUE

Building design and renovation

Environmental monitoring and control

Storage furniture

Storage housing

Step-by-Step Workbook: Achieving a Preservation Environment for Collections. Image Permanence Institute, 2005.

http://www.imagepermanenceinstitute.org/shtml_sub/wwd_monitoring.shtml

NEDCC Preservation Leaflets Section 2: The Environment and Section 4, Storage and handling. <http://www.nedcc.org/resources/leaflets.list.php>. See particularly:

Ogden, Sherelyn. Temperature, Relative Humidity, Light, and Air Quality: Basic Guidelines for Preservation

Ogden, Sherelyn. Methods and Handling Practices.

Ogden, Sherelyn. Selection of Suitable-Quality Storage Enclosures for Books and Artifacts on Paper.

Albright, Gary. Storage Enclosures for Photographic Materials.

Ogden, Sherelyn. Storage Furniture: A Brief Review of Current Options.

In class:

Environmental monitoring exercise

February 12. Shannon Zachary: Preservation Administration, Risk Management, Disaster Planning, and Insurance

Preservation planning

Risk management

Disaster planning

Staff and user education

Security

Required:

Kenney, Anne R. and Deirdre C. Stam, *The State of Preservation Programs in American College and Research Libraries: Building a Common Understanding and Action Agenda*, A Joint Study by Council on Library and Information Resources Association of Research Libraries University Libraries Group Regional Alliance for Preservation, 2002. See esp. pp 1-11 <http://www.clir.org/pubs/abstract/pub111abst.html>

Patkus, Beth Lindblom. "Disaster Planning." NEDCC Preservation Leaflet 3.3 <http://www.nedcc.org/resources/leaflets.list.php>

Artim, Nick. An Introduction to Fire Detection, Alarm, and Automatic Fire Sprinklers. NEDCC Preservation Leaflet 3.2 <http://www.nedcc.org/resources/leaflets.list.php>

Walsh, Betty. "Salvage Operations for Water Damaged Archival Collections: A Second Glance." *WAAC* 19: 2 (May 1997).

<http://palimpsest.stanford.edu/waac/wn/wn19/wn19-2/wn19-206.html>

Additional Readings to be added.

Recommended:

Scan disaster plans at: <http://palimpsest.stanford.edu/bytopic/disasters/plans/>

In class:

Table-top disasters

February 19. Margaret Hedstrom: Outsourcing and Grant Writing NEEDS ASSESSMENT SURVEY DUE

Grant writing

Outsourcing (RFI/RFP)

Outsourcing:

Janet Gertz, Vendor Relations, *Handbook for Digital Projects: A Management Tool for Preservation and Access*, Andover, MA: Northeast Document Conservation Center, 2000. <http://www.nedcc.org/oldnedccsite/digital/viii.htm>

Cornell University, Digital Preservation Tutorial, Determining The Best Approach: Outsourcing vs. In-House Programs, <http://www.library.cornell.edu/preservation/tutorial/management/management-03.html>

Grant Writing guides:

U-M, Division of Research, Development, and Administration, *Proposal Writer's Guide*, <http://www.research.umich.edu/proposals/PWG/pwgcontents.html>

Foundation Center, Proposal Writing Short Course, <http://fdncenter.org/learn/shortcourse/prop1.html>

Cost estimation guidelines: to be added.

February 26: Spring Break!!!

March 5: Paul Conway: Preservation Reformatting: Microfilming and Digitization

Microfilming basics

Strengths and limitations of digitization as a preservation strategy

Digital formats and standards

Quality control and benchmarking

Required:

"An Overview of Administrative Decisions." In *Preservation Microfilming: A Guide for Librarians and Archivists*, Second Edition. Edited by Lisa L. Fox. Chicago: American Library Association, 1996, pp. 23-72.

"Digital Benchmarking for Conversion and Access," In Anne R Kenney and Oya Reiger, *Moving Theory into Practice: Digital Imaging for Libraries and Archives*. Mountain View, CA: Research Libraries Group, 2000, pp. 24-60.

[skim] National Archives and Records Administration. *NARA Guidelines for Digitizing Archival Materials for Electronic Access*. June 2004.

<http://www.archives.gov/research/arc/digitizing-archival-materials.html>

Recognizing Digitization as a Preservation Reformatting Method. ARL Preservation of Research Library Materials Committee. June 2004. [NOT AVAILABLE AS OF FEBRUARY 2007] http://www.arl.org/preserv/digi_preserv.pdf

Recommended:

Carl Fleischhauer, *Steps in the Digitization Process*, Library of Congress, National Digital Library Program, January 1996.

<http://lcweb2.loc.gov/ammem/award/docs/stepsdig.html>

Conway, Paul. *Digital Technology Made Simpler*.

<http://www.nedcc.org/resources/leaflets/6Reformatting/03DigitalTechnology.php>

Dalton, Steve. "Microfilm and Microfiche." In *Preservation of Library and Archival Materials: A Manual*. Andover, MA: NEDCC, 1999.

<http://www.nedcc.org/resources/leaflets/6Reformatting/01MicrofilmAndMicrofiche.php>

- Guides to Quality in Visual Resource Imaging*. Washington, DC: Council and Library and Information Resources, Digital Library Federation, and Research Libraries Group, July 2000. <http://www.rlg.org/visguides/>
- Kenney, Anne R. and Oya Reiger, Digital Imaging Tutorial. 2000-2003. <http://www.library.cornell.edu/preservation/tutorial/contents.html>
- Puglia, Steve. *Technical Primer, Handbook for Digital Projects: A Management Tool for Preservation and Access*, Andover, MA: Northeast Document Conservation Center, 2000. <http://www.nedcc.org/oldnedccsite/digital/vi.htm>
- Smith, Abby. *Why Digitize?* Washington, DC: Council on Library and Information Resources, 1999. <http://www.clir.org/pubs/reports/pub80-smith/pub80.html>

In-class digital benchmarking exercise – **bring a calculator to class.**

March 12. Margaret Hedstrom: Selection for Preservation

Selection for preservation reformatting

Required:

- Hazen, Dan; Horrell, Jeffrey; and Merrill-Oldham, Jan. *Selecting Research Collections for Digitization*. Council on Library and Information Resources, August 1998. <http://www.clir.org/pubs/reports/hazen/pub74.html>
- Vogt-O'Connor, Diane. *Selection of Materials for Scanning, Handbook for Digital Projects: A Management Tool for Preservation and Access*, Andover, MA: Northeast Document Conservation Center, 2000. <http://www.nedcc.org/oldnedccsite/digital/iv.htm>

Review Selected Selection Policies:

- Library of Congress, Selection Criteria for Preservation Digital Reformatting, <http://www.loc.gov/preserv/prd/presdig/pressselection.html>
- Council on Library and Information Resources, *The Evidence in Hand: Report of the Task Force on the Artifact in Library Collections*, November 2001, <http://www.clir.org/pubs/abstract/pub103abst.html>
- Additional Readings to be added.

In-class selection exercise

March 19. Shannon Zachary: Preserving Original Works and Information Artifacts Field Trip to the U-M Buhr Conservation Lab, meet at Buhr at 9:10 a.m.

REFORMATTING EXERCISE DUE

Collection maintenance
Conservation treatments
Digital capture

NEDCC Preservation Leaflets Section 7: Conservation Procedures.

<http://www.nedcc.org/resources/leaflets.list.php> In particular read:

Ogden, Sherelyn. Guidelines for Library Binding

Paris, Jan. Choosing and Working with a Conservator.

American Institute for Conservation of Historic and Artistic Works. Code of Ethics and Guidelines for Practice. <http://aic.stanford.edu/about/coredocs/coe/index.html>

March 26. Paul Conway: Preservation Metadata

Types of metadata
Metadata standards
Best practices in applying metadata elements

Required:

Lavoie, Brian. *Open Archival Information System: Introductory Guide*. Technology Watch Report 04-02. Digital Preservation Coalition, January 2004.

<http://www.dpconline.org/graphics/reports/index.html>

Read Chapters 1-2, skim remainder of: *METS Primer and Reference Manual*. Library of Congress. Metadata Encoding and Transmission Standard, Official Site. October 2006. <http://www.loc.gov/standards/mets/>

“Preservation Microfilming and Bibliographic Control.” In *Preservation Microfilming: A Guide for Librarians and Archivists*, Second Edition. Edited by Lisa L. Fox. Chicago: American Library Association, 1996, pp. 228-262.

Lavoie, Brian and Richard Gartner. *Preservation Metadata*. DPC Technology Watch Report 05-01. September 2005. Available at: <http://www.loc.gov/standards/premis/>

Recommended:

See separate list to be provided in class.

April 2. Nancy McGovern: Preservation Readiness and OAIS

Digital asset management
Institutional repositories
Project management
Copyright

Required:

Currall, James and Peter McKinney, “Investing in Value: A Perspective on Digital Preservation,” *D-Lib Magazine*, April 2006, Volume 12 Number 4:

<http://www.dlib.org/dlib/april06/mckinney/04mckinney.html>

Hockx-Yu, Helen, “Digital Preservation in the Context of Institutional Repositories,” *E-Prints in Library and Information Science*, 2006:

<http://eprints.rclis.org/archive/00007351/>

Kenney, Anne R., Nancy Y. McGovern, et al. *Digital Preservation Management: Implementing Short-Term Strategies to Long-Term Problems*, Section 4, “Foundations” of the online tutorial: <http://www.library.cornell.edu/iris/tutorial/dpm/index.html>

Kenney, Anne R. and Nancy Y. McGovern, “The Five Organizational Stages of Digital Preservation,” in *Digital Libraries: A Vision for the Twenty First Century*, a festschrift to honor Wendy Lougee, 2003. <http://hdl.handle.net/2027/spo.bbv9812.0001.001>

Oltmans, Erik, and Nanda Kol, “A Comparison Between Migration and Emulation in Terms of Costs,” *RLG DigiNews*, Volume 9, Number 2:

http://www.rlg.org/en/page.php?Page_ID=20571

Recommended:

CCSDS, *Reference Model for an Open Archival Information System (OAIS)*, 2002:

<http://public.ccsds.org/publications/archive/650x0b1.pdf>

DSpace Federation, Communications Kit: <http://dspace.org/implement/communications-kit.html>

Kenney, Anne R., et al. *E-Journal Archiving Metes and Bounds: A Survey of the Landscape*, "Executive Summary," CLIR pub 138, Washington, DC: Council on Library and Information Resources (CLIR), 2006:
<http://www.clir.org/pubs/abstract/pub138abst.html>

McLeod, R. and Wheatley, P. and Ayris, P., "Lifecycle Information for E-literature," LIFE Project Summary Report, 2006: <http://www.ucl.ac.uk/lifeproject/documentation/>

Pardo, Theresa A., Sharon S. Dawes, and Anthony M. Cresswell, "Opening Gateways: A Practical Guide for Designing Electronic Records Access Programs," Second edition, Center for Technology in Government, January 2002:
<http://www.ctg.albany.edu/publications/guides/gateways>

RLG, "Trusted Digital Repositories: Attributes and Responsibilities," 2002:
http://www.rlg.org/en/page.php?Page_ID=583

April 9. Shannon Zachary: Value, Authenticity, and Artifacts

Defining value and authenticity
Artifact vs. content preservation
Integrity of artifacts and collections

Required:

Baker, Nicholson. "Deadline: author's desperate bid to save America's past." *New Yorker* July 24, 2000: 42-61.

Cox, Richard J., "The Great Newspaper Caper: Backlash in the Digital Age." *First Monday* 5/12 (December 2000).
http://www.firstmonday.org/issues/issue5_12/cox/index.html

Recommended:

Stille, Alexander. "The Culture of the Copy and the Disappearance of China's Past," in *The Future of the Past*, New York: Farrar, Strauss, and Giroux, 2002: 40-70.
The Evidence in Hand: Report of the Task Force on the Artifact in Library Collections, Council on Library and Information Resources, November 2001.
<http://www.clir.org/pubs/abstract/pub103abst.html>

In class:

Video: The Great Paper Debate (selections)

Class debate: Print / digital duplicates

April 16: Student Presentations of RFPs and Grant Proposals

April 23: Student Presentations of RFPs and Grant Proposals