Course Description

An introduction to the principles and practices of library and archives preservation, including examination of the composition of paper, book, and non-book materials; agents that contribute to deterioration; current methods for preventing and remediating deterioration, including environmental controls, disaster planning and recovery, binding, digitization and other reformatting technologies, collection maintenance and rehousing; a basic introduction to the preservation and curation of digital object, and the management of preservation efforts, including preservation assessment and decision-making; and the standards and professional ethics that support them.

Course Objectives

• To understand key concepts and terms in preservation, including the major causes of deterioration of library and archival materials in analog and electronic formats.
• To build a conceptual framework for considering the range of issues involved in planning for and carrying out preservation activities.
• To recognize and appreciate preservation as one of the central functions in libraries and archives, and to explore the relationships between preservation and other library functions.
• To become familiar with and evaluate print and online information sources on preservation.

*Student Learning Objectives*

• Utilize a broad range of systems and technologies to manage and deliver information. Students will be evaluated on:
  • The written assignments, which require them to apply information from class sessions and readings to solve case studies of real-world preservation situations.
  • The in-class presentation, which requires them to evaluate a technological initiative and explain its strengths and weaknesses to the class.
  • The assigned readings, which students are expected to discuss in class.
150 hours of assignments and activities calculated as follows:

<table>
<thead>
<tr>
<th>Assignment or Activity</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Classtime (14 weeks at 110 minutes per class)</td>
<td>26</td>
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<tr>
<td>Assigned readings (13 weeks @ 5 hours/week)</td>
<td>65</td>
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<tr>
<td>Three short papers (10 hours each to research and write)</td>
<td>30</td>
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<tr>
<td>Final project: Preservation Assessment: includes site visits, research, survey</td>
<td>30</td>
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<td><strong>TOTAL</strong></td>
<td><strong>151</strong></td>
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**Office Hours**

Feel free to contact me at eh2124@columbia.edu
My work phone number is 212-854-1336

*Course blog:* There is a blog set up for this course which can be found at [http://palmerlis657.wordpress.com/](http://palmerlis657.wordpress.com/)

The blog is a tool to ask questions about current readings and assignments, to review the syllabus, download the lecture notes, and also as a means of continuing the discussions raised in our in-person meetings. Participation on the blog is not required, but if you do post, it will count toward your class participation grade.

The syllabus is posted there, along with links to all required readings. All non-copyrighted material from Powerpoint slides is also posted.

**Course Requirements and Grading**

There will be three short written assignments and a final project. Class grades will be based on participation in classroom discussions, blogging participation, and written assignments. The three short papers will be given equal weight. Your final project will equal twice the other graded assignments.

- Attendance and participation (including on the blog): 25%
- Written assignments and presentations: 75%

- For every assignment that is turned in late, a half grade will be taken off each week until the paper is received, unless there is an emergency or other valid reason, which must be discussed with me first.
- Each week students will also be assigned readings and expected to be able to discuss the contents.
Course Readings
No up to date textbook on preservation is currently in print. Many of our basic readings will come from the Northeast Document Conservation Center’s online course, Preservation 101, at http://unfacilitated.preservation101.org/loggedin.asp. Other online sources will be assigned and for items where there is no online source, assigned readings will be available on reserve.

Three Short Assignments
There will be three short written assignments and a final project. The aim of the short written assignments is two-fold: 1. to learn more about the practical applications of the theory we will be discussing in class, and 2. to practice writing professional reports as will be expected of you in future professional positions. Thus, reports will be graded both on your preservation judgment, but also the organization, succinctness and professionalism of your written work. Details of each paper will be provided on the blog and discussed in class.

- **Assignment One:** You will read and analyze a sample environmental report from an academic library (provided on the blog); in the role of preservation librarian or curator, write a concise professional report, stating the problems you see with the environment, along with a list of possible solutions to these problems

- **Assignment Two:** You will be randomly assigned a type of media to research (i.e., daguerreotype, wax cylinder, LP, etc.) and will provide a general description of it, as well as details about what makes it vulnerable and the types of preservation interventions you would suggest to support your media types' long term preservation

- **Assignment Three:** You will research a long term digital repository, briefly describe it and give information about the organization it serves. Map the functions of this repository to the main roles and functional entities of the OAIS conceptual framework

Assignments that are turned in late will lose one half grade for each week that paper is late.

*Each short paper is worth 15% of grade*
Final Projects: You may choose one of two possible projects:

Option One: Complete a partial Preservation Assessment on a Library or Archive

1. Choose a library to conduct a preservation assessment. If you are currently working in a library, I would recommend that you choose that one, since you have access to more information about it. If not, you may choose another library (you are allowed to estimate on statistics, etc. if necessary for this exercise, but should try to answer most the questions as accurately as possible)

2. Identify the library's name, the type of library it is (public, academic, etc), whom it serves, and the type of collections it houses. If it has a preservation department, describe it briefly.


4. Fill out the "General Building Worksheet", the "Worksheet for Mixed Collections", and another specific collection worksheet of your choice (pdf files).

5. On a separate sheet make recommendations for improvements or changes based upon your findings, or, if you find that no changes are necessary, support that with your findings.

Option Two: Create a Digital Preservation Policy for a Library, Archive or Business

For this assignment, you will establish a relationship with a local institution (library, archive, public radio/tv affiliate, business, etc) that is building its digital collections and that has not yet produced a digital preservation policy.

1. Design and implement a needs-assessment interview to gather pertinent information about the institution and its collections

2. Produce a digital preservation policy in conjunction with the institution’s staff.

3. Produce a list of short and long term goals for your institution regarding implementing their digital preservation policy and plan.

We will devote some time during the class on surveys to discuss your projects. You may also use the blog or class time to bring up questions. There are sample digital preservation policies and a link to the needs assessment document on the blog.

30% of grade
Selected On-Line Resources  
(URLS verified in July 2014)

AIC (American Institute for Conservation of Historic and Artistic Works)  
[http://www.conservation-us.org](http://www.conservation-us.org)  
In addition to information for professional conservators, includes brochures for the general public on caring for books, photographs, and other objects, and a service to locate professional conservators by specialty and by geographic location.

AMIA (Association of Moving Image Archivists)  
[http://www.amianet.org](http://www.amianet.org)  
A non-profit professional association established to advance the field of moving image archiving by fostering cooperation among individuals and organizations concerned with the acquisition, description, preservation, exhibition and use of moving image materials.

CCI (Canadian Conservation Institution)  
Among other resources, home of BCIN, the Bibliographic Database of the Conservation Information Network, the Web's most complete freely available bibliographic resource for the conservation, preservation and restoration of cultural property, at [http://www.bcin.ca/English/home_english.html](http://www.bcin.ca/English/home_english.html)

CoOL (Conservation On-Line)  
[http://cool.conservation-us.org/](http://cool.conservation-us.org/)  
Devoted to all aspects of preservation and conservation of library, archival, and museum materials. Includes full-text and links to other resources and organizations; organized by topic. A source of disaster response information. Includes links to many online preservation and conservation-related dictionaries, encyclopedias, and other resources at [http://palimpsest.stanford.edu/lex](http://palimpsest.stanford.edu/lex)  
Also home to Conservation DistList, a moderated list dealing with conservation and preservation. ConsDist archives can be searched on CoOL.

CLIR (Council on Library and Information Resources)  
[http://www.clir.org](http://www.clir.org)  
CLIR’s goal is helping to ensuring that information resources needed by scholars, students, and the public are available for future generations. They publish reports and provide links to discussions of preservation, electronic resources, scholarly information, and digital libraries.

Digital Curation Centre  
[http://www.dcc.ac.uk/](http://www.dcc.ac.uk/)  
A UK-based center to support expertise and practice in data curation and digital preservation across communities of practice.

IASA (International Association of Sound and Audiovisual Archives)  
IASA functions as a medium for international co-operation between archives that preserve recorded sound and audiovisual documents. It produces standards for preservation activities.

ICA (International Council on Archives) Photographic and Audiovisual Archives Working Group  
Provides useful links and bibliographies.

IFLA (International Federation of Library Associations) Preservation and Conservation Section  
The Section is concerned with the preservation of the world’s documentary heritage and provides a forum for exchange, development and dissemination of knowledge and experience dealing with theories, policies and practices for the preservation of all recorded knowledge, regardless of the storage medium. See in particular First Do No Harm: Register of Standards, Codes of Practice, Guidelines ... Relating to Preservation and Conservation, 2005, at http://www.ifla.org/VII/s19/pubs/first-do-no-harm.pdf

IPI (Image Permanence Institute) http://www.imagepermanenceinstitute.org
IPI is a university-based, nonprofit research laboratory devoted to scientific research in the preservation of visual and other forms of recorded information. Areas of interest are research on the stability of information media, environmental monitoring and standards, standards for imaging media preservation, and training of photograph conservators.

Library of Congress:
- Preservation Directorate http://lcweb.loc.gov/preserv
- NDSA (National Digital Stewardship Alliance) A collaboration among government, academic, and business organizations to preserve the distributed national digital collections http://www.digitalpreservation.gov/ndsa

NEDCC (Northeast Document Conservation Center) http://www.nedcc.org
NEDCC is the largest nonprofit regional conservation center in the United States. As well as providing disaster recovery assistance, surveys and conservation and reformatting services, it carries on extensive educational activities and provides useful publications online.
Class 1    Sept 8, 2014    Introduction to Preservation

- Definitions, purposes, elements of preservation.
- Qualities of original materials.

Readings for Class 1:

Northeast Document Conservation Center. Preservation 101; Introduction to Preservation. Read through the all the parts of “What is Preservation”.
   http://unfacilitated.preservation101.org/session1/expl_whatis.asp

   Read through to p. 27.

   http://www.mla.org/primary_records1


   Read Executive summary and skim the rest
Class 2  Sept 15, 2014       Paper, Books, and Binding

- History of paper manufacturing; rag, wood pulp, and machine paper.
- Paper permanence and durability; acidic and acid-free paper.
- Deacidification of acidic paper.
- Library standards.
- Parts of the book; book construction.
- Library binding.

Readings for Class 2:


(You can also just Google ANSI/NISO Z39.48 1992 (R2002). )


New York University Preservation Dept. Commercial Binding Exhibit
http://library.nyu.edu/preservation/exhibits/presexh/comm.htm
Class 3 Sept 22, 2014 Audio-Visual and Electronic Materials

- Guest speaker, Marcos Sueiro, of WNYC, will discuss audio media types and their preservation
- Construction and causes of deterioration of photographic media, phonographic disks, magnetic media, and optical media.
- Issues relating to preservation of digital information.

Readings for Class 3:


Schuller, Dietrich. 2008 *Audio and video carriers*. [http://www.tape-online.net/docs/audio_and_video_carriers.pdf](http://www.tape-online.net/docs/audio_and_video_carriers.pdf)

Film preservation guide, Chp. 2 Understanding film and how it decays, pp. 6-18. [http://www.filmpreservation.org](http://www.filmpreservation.org) (click on Preservation Basics, then Film Preservation Guide)
Assignment due October 6 (2-3 pages): Each student will be randomly assigned a type of media to research.

1. Give a general description of the media (dates, used, date when obsolete, if applicable) as well as how to identify it.
2. How does one play it? (if applicable) For photographs, what technology/methods were used to produce?
3. What are the materials from which it is composed?
4. What are the possible effects of:
   a. Temperature
   b. Humidity
   c. Light
   d. Air pollution/dust
   e. Poor handling
5. Name the three biggest risks for damage of this media
6. Name three important preservation strategies or considerations for this media

Here are a few suggestions for researching and formatting your paper:

- You can start with just a simple Google/Wikipedia search for your media type but don't stop there! The readings in the syllabus should provide you with both information and paths to more sources as well, so do look at them.

- Use an outline or bulleted format based on the six questions posed above

- Keep to the instructions to name just three risks and three strategies. In preservation, we often have to hone in on the highest priority, so pretend that you are the curator or preservation librarian/archivist in charge and you need to prioritize

- Format it more like a report than a research paper

- Keep it brief!
Class 4 Sept 29, 2014 Environmental Controls and Housing

- Finish library binding lecture
- Environmental controls: temperature, humidity, light, pollution.
- Housing and protective enclosures.

Readings for Class 4:
Northeast Document Conservation Center. Preservation 101, Session 5, Collections Care. Read all of section 5, “Collections Care”


Assignment due October 27 (2-3 pages)

1. Read the sample environmental report from an academic library
2. See how many problems you can identify as you read through the report - it's probably easiest to organize them according to the environmental areas we have discussed before (temperature, rh, light and air quality). It's probably a good idea to create a section called "environmental monitoring" as well to address issues related to the way the data is being collected and recorded
3. Write a report as if you were the new curator proposing a plan to your director to address the environmental problems identified. Be brief and concise – use bullet points or an outline to organize your report succinctly and clearly identify problems and then solutions to those problems in a way that you feel would be clear to a library director. (hint: they won't want a lot of technical or scientific jargon, just plain speaking, well organized and concise data and proposed solutions)
4. You will be graded on style as well as substance -- that the assignment looks more like a professional report than a research paper.
5. Some solutions to the problems could be very expensive. Suggest alternatives that could be followed in case budgets are limited. (We always want to propose cost saving alternatives to our directors)
6. Since it's not *really* a professional report (!), do cite your sources!
7. Ask questions if you feel stymied!! Writing professional reports is a skill that no one is born with -- if you've never done them before, they may feel like an unfamiliar type of format.
Class 5  Oct 6, 2014  Housing, Security, Care and Handling

- Proper care and handling of books and other library materials.
- Issues relating to security.

Readings for Class 5:

Library of Congress. Care, Handling and Storage of Books
http://www.loc.gov/preservation/care/books.html

ALA/LLAMA Guidelines for Library Security, 2010


Required Viewing:

Glad book Sad Book:
http://www.youtube.com/watch?v=fBOohI9u0_0&feature=related

Preservation Faux Pas:
http://www.youtube.com/watch?v=IfegfUyoxQc

Murder in the Stacks:
http://www.youtube.com/watch?v=phyFPJD-CGs

No class next week due to Columbus Day Holiday!
Class 6 Oct 20, 2014 Disaster Preparedness

- Nature of library disasters.
- Planning for disaster prevention.
- Watch video The Restoration of Books

Readings for Class 6:


http://unfacilitated.preservation101.org/session7/index.asp Also, while you are on the NEDCC site, search for dplan and look at the information about it on their site. Download if you’re interested.


http://www.nedcc.org/free-resources/preservation-leaflets/3.-emergency-management/3.6-emergency-salvage-of-wet-books-and-records


http://www.nedcc.org/free-resources/preservation-leaflets/3.-emergency-management/3.7-emergency-salvage-of-wet-photographs


Techsoup Disaster Recovery Guide. This guide is a bit lengthy -- you don't need to read through the whole thing thoroughly - just skim and get an idea of what disaster recovery for digital materials entails and consider in what ways it is similar to and different from other types of disaster planning and recovery: http://www.techsoup.org/SiteCollectionDocuments/resilient-organization-pdf-document.pdf

Required Viewing:
Restoration of Books:
http://www.youtube.com/watch?feature=player_detailpage&v=Ip6698z_QmY

Reminder: Next class will be held at Columbia’s Conservation Lab – we’ll meet in the lobby of Butler Library at 4:30 pm.

To get there: subway #1; bus #M4 from east side or #M104 from west side; get off at 116th Street.
Class 7  Oct 27, 2014  Repair and Conservation

- Guest speaker Vasare Rastonis will lecture and conduct a tour
- Overview of Repair units and Special Collections Conservation
- Ethics of special collections conservation and working with a conservator.
- Making repair and conservation decisions.

Readings for Class 7:


http://www.conservation-us.org/about-conservation/how-to-choose#.Ux3agXe2yuM

http://www.conservation-us.org/about-us/core-documents/code-of-ethics#.Ux3aO3e2yuM


Jeff Peachey’s blog: Blog of a NYC conservator and bookbinder, with many great treatment examples to give a good picture of the work that conservators do  
http://jeffpeachey.wordpress.com/
Class 8  Nov 3, 2014  Preservation Reformatting

- Nature of copying and retention of the original.
- Copyright issues for preservation.
- Reformatting technologies: microfilming, photocopying, digitization.
- Project management and vendor relations.

Readings for Preservation Reformatting (Class 8 and 9):

Abby Smith. 2001. The Evidence in hand: The report of the Task Force on the Artifact in Library Collections, pp. 8-16 (Ch. 2 Artifact in question).


Click on pdf and read: I. Introduction, IV. Digitization Specifications for Record Types, V. File Format Comparison, VI. Metadata, VII. Storage Recommendations, VIII. Quality Management.


Read Executive Summary; Ch 2, Archiving; Ch 3, Transition to Digital; Ch 5, Archiving in the Changing Environment; Ch 8, Consensus
Class 9       Nov. 10, 2014    Preservation Reformatting, continued

- Digitization, including audio and moving image.
- Assignment of Digital Preservation Groups and Topics (due Apr 10)

Readings for Class 9 listed in Class 8

Assignment due December 1  (2-3 pages):

You will research a long term digital repository, briefly describe it and give information about the organization it serves. Map the functions of this repository to the main roles and functional entities of the OAIS conceptual framework (see list below). It is recommended that you choose a well known repository, such as one of the Global or Private LOCKSS networks, CLOCKSS, Portico, MetaArchive, or Hathi.

- Provide a brief overview of the repository
- What type of materials does the repository preserve?
- Is it a dark archive or a light archive?
- Briefly describe what you think would constitute the OAIS roles and functions for this repository:
  - SIPS
  - AIPS
  - DIPS
  - Producer
  - Consumer
- Can you find any information about how ingest occurs and what, if anything, is done to the SIP upon ingestion?
- Include any other information you think is important to know about this repository.

Our usual rules apply regarding citing sources consistently. You can choose how to format. It's fine with me if you format with bullet points (but do use full sentences, not fragments) or you can write it more like a narrative. I also recommend answering each point above in the order in which I ask them to keep the paper organized and to make sure that you don't repeat yourself.
Class 10  Nov 17, 2014  Preservation of Digital Resources I: Overview and Metadata

- Project management and vendor relations.
- Preservation of digital resources
- Importance of metadata for preservation of electronic resources.

Readings for Class 10:
http://www.ala.org/ala/mgrps/divs/alsc/resources/preserv/defdigpres0408.cfm


Digital Curation Centre. What is Digital Curation?
http://www.dcc.ac.uk/about/what/

Digital Curation Centre. DCC Curation Lifecycle Model.
http://www.dcc.ac.uk/docs/publications/DCCLifecycle.pdf

http://ijdc.net/index.php/ijdc/article/view/6/0

http://www.loc.gov/standards/premis/v2/premis-report-2-0.pdf

http://www.loc.gov/standards/premis/understanding-premis.pdf
Class 11  Nov 24, 2014  Preservation of Digital Resources II: Repositories, OAIS and Born Digital

- Digital repositories
- OAIS
- Preservation of ejournals, websites, etc.

Readings for Class 11:

First an interesting blog entry from March 2014 about how well we are actually doing with digital preservation:


Center for Research Libraries. 2007. Trustworthy Repositories Audit and Certification (TRAC). Read Introduction and Appendix 1 (Glossary). Skim the rest, noting the three categories to be measured by the tool [Link]


Collaborative Electronic Records Project (Smithsonian Institution Archives and Rockefeller Archive Center). Read through documentation. Downloading the software is not necessary! [Link]


Class 12  Dec 1, 2014  Preservation Assessment, Surveys,  & Planning

- Institutional assessments.
- Condition surveys.
- Developing a preservation plan based on the surveys.
- Preservation policies.
- Discussion about final projects

NEDCC Preservation 101, Introduction to Preservation, section on Assessing Collections
http://unfacilitated.preservation101.org/session1/prac_assessing.asp

NEDCC Preservation 101, Building a Preservation Program, sections on Preservation Planning and Program Management
http://unfacilitated.preservation101.org/session8/expl_plan.asp

Teper, Thomas and Stephanie Atkins. 2003 “Building preservation: The University of Illinois at Urbana-Champaign’s stacks assessment.” College & research libraries pp. 211-227.

Class 13  Dec 8, 2014  Selection for Preservation

- Making preservation decisions.
- Criteria for preservation selection.
- Preservation of the original/preservation of content.

Readings for Class 13:


For our final week, we will be at Columbia University for a site visit. Please let me know if you will be unable to attend.
Class 14  Dec 15, 2013  Site Visit to Columbia’s Preservation Division

- Tour of Preservation and Digital Conversion Division
- Wrap up of the course