SCHOOL OF INFORMATION
UNIVERSITY OF TEXAS AT AUSTIN

MATERIALS IN LIBRARIES, ARCHIVES AND MUSEUMS

Lecturer: Karen Pavelka, UTA 5.422
Meeting time: Thursday, 9-12, UTA 1.506B
Office hours: TBD
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Lab phone: 471-8269 (pretty much always here) Office phone: 471-8286 (rarely there)

Course Overview:
Underlying factors in the physical nature of records materials; concepts of permanence and durability and their assessment; basic concepts of materials science; materials found in library, archive and museum collections, especially manuscripts, books and photographic processes. Context of conservation and preservation practice.

Objectives:
1. To impart understanding of the materials frequently encountered in library, archives and museum collections through emphasis on common, underlying factors of stability and deterioration.
2. To allow the student to gain an understanding of the conservation and preservation literature.
3. To emphasize the importance of understanding classes of materials, similarities and differences.
4. To learn to identify and investigate components of objects and assess stability.
5. Secondary emphasis will be placed on methods of fabrication, especially as they relate to durability or physical toughness of materials.
6. Historical development of materials will be discussed especially where it is relevant to understanding the range of materials likely to be encountered and where it bears on lasting qualities.

Recommended texts: One copy of each will be kept in the lab for limited loans
Benson, R. (2008). The printed picture. New York: Museum of Modern Art. The companion website to this book can be found at: http://www.benson.readandnote.com/videos/woodcut-printing Accessed July 17, 2018 when the text was there but the videos were not loading.

Required readings
Students are responsible to have read all the readings listed on the syllabus before class and are expected to come to class prepared to discuss them. Every week in class we will review the readings for the next week and I will let you know which are the most important, which are trivial and just for fun, and which will be over your heads. There are many more books, journals, samples etc. in UTA 1.506 and you are welcome to use any of the materials in that room. Please do not remove anything from 1.506 without my specific permission for each item.

Assignments

Research Paper
A research paper is required for this class. The objective of the paper is to provide you with experience in framing a question about the nature of materials, becoming familiar with the resources available for conservation and preservation technology, evaluating citations critically, and communicating with colleagues. It is an opportunity to read about something that interests you. **The topic must be approved by the instructor.** Selected papers from previous classes are stored in manuscript boxes in 1.506 and may provide inspiration if you are looking for a topic.
The paper will be submitted in four stages:

- **The topic will be chosen by September 12.** Students will post their thesis question or statement to Canvas where it will be shared with other class members. Post the file in the folder titled *Paper topics due September 12.* Title the file: Yourlastname_topic using a one word summary for your paper and no spaces in the title. (For instance, if I were writing a paper on the subtleties of deterioration of gum bichromate prints I would title it: Pavelka_gumprints) I will only accept assignments as a Word doc.

- **A complete paper including the bibliography is due SUNDAY November 3.** You must identify which bibliographic style you are using at the top of your bibliography. This version of the paper is to be posted on Canvas in the folder titled *Draft research papers* where it will be accessible to the rest of the class. This version will not be graded but I will offer comments on the draft; it is intended to promote an exchange of ideas and observations. Title the file Yourlastname_draft

- **November 7 & 14 Each student will be assigned a time to lead a discussion about his or her research. The discussion might include a brief summary of the work; impediments or successes encountered, especially if you found a useful research technique or source; suggested areas for further research; others areas as appropriate. You should prepare questions for discussion. The point is not merely to present your work, but to get feedback from your colleagues. The discussion format may vary according to class size.**

- **The final paper is due Friday, December 6; please post directly to Canvas. The final version will be graded.** Post the file on Canvas in the folder titled *Final Research Paper.* Title the file Yourlastname_finalpaper. Selected paper copies will be kept on file in UTA 1.506 (Lab Ante Room) for reference for future students. **Please let me know if you do not want your paper included in this group.**

- Again, please submit all assignments as a Word doc so I can use Comments and Track Changes to give feedback. I will not accept PDF files or any format other than Word.

**Article presentation "Journal Club"
Each student is required to present one article to the rest of the class. Students will be assigned a date to present and the article should relate to either the class topic for the day, or the student's research paper. You should select a peer reviewed article rather than something from the popular press. Each student will select an article and distribute copies to the class at least one week before the assigned presentation date. You may use the folder provided on Canvas or use another method of distribution as you like as long as everyone has easy access to the article. The student will then lead a discussion of the article focusing on the significant points, successful arguments or flawed assumptions, how the article contributes to the existing body of literature, etc. The presenter should prepare a list of discussion questions. All class members are responsible for reading each article, but the presenter will read much more carefully and critically than other class members. The presentation will be graded on the quality of the article, how well the information is presented and the level of discussion that is generated.

**Agents of deterioration observation**
You will be reading about the agents of deterioration for class on September 4. For each agent select one object on display at the Blanton that exhibits either evidence of or vulnerability to that threat. For instance, if you found a print with a charred edge on display you could site evidence of fire damage, and if you saw a person removing a framed object from the wall and putting it in their backpack, you could site vulnerability to theft. (This will not happen: framed objects are screwed to the wall and backpacks are not allowed.) Your justification for the threat should be realistic, i.e. while paper can burn easily, a framed object on a museum wall is not really vulnerable to the threat of fire. The risk of fire is very small, and if one did occur, the sprinkler system would likely extinguish it quickly. Neither space aliens nor zombies will not be considered a plausible threat.

Identify each object by title, artist and location. Use the visitor map available at the front desk at the Blanton to identify the room where the object is located and include a photograph of each object in your paper. Using the CCI guidelines, identify the specific agent and either how the damage is likely to have occurred or how you think it might occur. Organize your paper with the greatest threat being described first, and then proceed in descending order.

We will be visiting the Blanton Museum on Thursday September 26 for a behind the scenes tour of the institutional activities. While we will not be going through all the galleries as a group, you may be able to use the time after class to view the collections. Your examples must be taken from objects on display, not anything we see in storage on our tours. You may want to review the 10 agents of deterioration before we visit the Blanton on September 26.
Students may exchange ideas and observations with each other, but the papers must be written individually. You may use any object on display whether or not someone else is using it. The assignment is due October 3 and should be submitted under *Agents of Deterioration Observation* in Assignments on Canvas.

Depending on how the tours progress, I will try to set aside 10 minutes or so at some time on the 26th to discuss this assignment, and of course, please feel free to ask questions at any time.

**Quizzes**

There will be at least one quiz for printing process and photo process identification. There may be others including “pop” quizzes. All quizzes combined only count for 5% your grade and they are graded very liberally. I give them to help me know what people are understanding or misunderstanding.

**Useful dates to remember**

- **September 12:** Research proposal due; post directly to Canvas. Students are strongly advised to speak with the instructor before submitting a proposal. *Please note there are only 8 ½ weeks until the draft is submitted.*
- **October 3:** Agents of deterioration paper due. Email the Word document to pavelka@utexas.edu
- **November 3: SUNDAY** Written paper, bibliography and discussion questions are due. Please post directly to Canvas. Students are expected to read all papers before the class discussion and be prepared to offer comments and suggestions. DUE AT MIDNIGHT SUNDAY
- **November 7 & 14:** Discussion of class papers. Colleagial. Food provided.
- **December 5:** Photo and print process identification quiz.
- **December 6:** Final papers due; post directly to Canvas.
- **To be assigned:** Individual article presentations.

**Grading**

Grade points will be distributed as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Points</th>
</tr>
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<tbody>
<tr>
<td>Research paper</td>
<td>20</td>
</tr>
<tr>
<td>Research paper presentation</td>
<td>10</td>
</tr>
<tr>
<td>Participation in paper discussions</td>
<td>10 (5 points each session)</td>
</tr>
<tr>
<td>Article presentation &quot;Journal Club&quot;</td>
<td>20</td>
</tr>
<tr>
<td>Agents of deterioration summary</td>
<td>15</td>
</tr>
<tr>
<td>Quizzes</td>
<td>5</td>
</tr>
<tr>
<td>Attendance and *participation</td>
<td>20</td>
</tr>
</tbody>
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*Participation is mandatory and defined by the amount of meaningful content each student contributes to the class. That said, participation is not dominance, rather open and welcoming discussion that includes everyone. If you never open your mouth in class, other than when you are presenting, you will not get a grade higher than a B for the class and more likely a C. On the other hand, if you tend to dominate every discussion, especially with personal anecdotes, expect a low grade.*

**Course Policies**

Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259, http://www.utexas.edu/diversity/ddce/ssd/

Students are expected to adhere to the University Honor Code. http://registrar.utexas.edu/catalogs/gi09-10/ch01/index.html

By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.
Context and introduction


Valentine J.; Li, J.; Zentgraf, T.; Bartal, G.; and Zhang, X. (2009). "An optical cloak made of dielectrics" Nature Materials, 8, 568. Available through Google Scholar. Read this for the conceptual picture only; you are not expected to understand the physics here.
Preventive conservation and environmental control

Article presentation:

Article presentation:


Paper copy in lab.


Lavedrine, B. (2009). From mass-produced artefacts to mass treatments: the impact of industrial development on the museum field. Incredible Industry: Preserving the Evidence of Industrial Society, pp. 15-24. The digital version of this volume is available at: http://www.nkf-dk.dk Retrieved June 28, 2018. You will have to navigate the site in Dutch, but the icons are fairly straightforward. There is a link at the bottom of the first screen labeled Publikationer that takes you to the publication.


Read:


Chapter 18, “Myths as metaphors: understanding narratives in sustaining sacred landscapes in Zimbabwe and Australia, pp. 399-419.


Microscopy resource center. (2012). Retrieved June 28, 2018, from http://www.olympusmicro.com/ Read (at least) the following sections:

Home page > Physics of Light and Color > Sources of Physical Light > Introduction to Visible Light Sources
Home page > Physics of Light and Color > Primary Colors > Introduction to Primary Colors
Home page > Microscopy Basic Concepts > Introduction > Anatomy of the Microscope
Home page > Special Techniques > Polarized Light Microscopy > Polarization of Light


Preventive conservation and environmental control
Using the psychrometric chart
Article presentation:
Article presentation:


Snow, C.P. (1961). The two cultures and the scientific revolution. New York: Cambridge University Press. Retrieved June 28, 2018, from http://sciencepolicy.colorado.edu/students/envs_5110/snow_1959.pdf (This is one of those articles that everyone in the field of information says they've read, but...)


Basic concepts: Dyes and colorants; examination and analysis

Article presentation:


Conservation science for the cultural heritage: Applications of instrumental analysis. (2013). Berlin, Heidelberg: Springer Berlin Heidelberg. This is available electronically from UT libraries. Read the table of contents only.


Warren, S. (2009). Hazards in industrial collections of the Canada Science and Technology Museum Corporation Ottawa, Canada. Incredible Industry: Preserving the Evidence of Industrial Society, pp. 225-232. The digital version of this volume is available at: http://www.nkf.dk.dk (Retrieved June 28, 2018). You will have to navigate the site in Dutch, but the icons are fairly straight forward. There is a link at the bottom of each screen labeled Publikationer that takes you to the publication.

<<<< Class 7 - 10 October >>>>

Applying concepts: Paper and ink


Stephens, C. H.; Whitmore, P. M.; Morris, H. R.; and Bier, M. E. Hydrolysis of the amorphous cellulose in cotton-based paper. *Biomacromolecules* 9, no. 4 (2008), pp. 1093-1099 (Read the abstract only unless you have a strong chemistry background.) PDF available by searching title at http://scholar.google.com/


<<<< Class 8 - 17 October >>>>

Applying concepts: Printing processes and photographic materials


Lavedrine, B. (2003). In A guide to the preventive conservation of photograph collections (pp. 3-142). Los Angeles: Getty. (Required text; copy in lab)

NEDCC. (n.d.) Creating long lasting ink jet prints. Retrieved June 28, 2018, from [https://www.nedcc.org/free-resources/preservation-leaflets/5.-photographs/5.4-creating-long-lasting-inkjet-prints](https://www.nedcc.org/free-resources/preservation-leaflets/5.-photographs/5.4-creating-long-lasting-inkjet-prints)


Applying concepts: Photographic materials

Article presentation:


Applying concepts: Photographic materials (Photo display)

Discuss papers


