Note: This is a draft and some of the readings will change in the final version. Likewise, some of the assignments may change.

SCHOOL OF INFORMATION
UNIVERSITY OF TEXAS AT AUSTIN
MATERIALS IN LIBRARIES, ARCHIVES AND MUSEUMS

Lecturer: Karen Pavelka, UTA 5.422
Meeting time: Wednesday, 9-12, UTA 1.506B, Unique #28949
Office hours: By appointment
Email: pavelka@utexas.edu

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

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:
Part I

Due September 22

Devise a list of interview questions. This will be done as a group and some class time will be allocated for this exercise. It is important that you give your informant an idea of how many questions there will be, and how long you expect the interview to take. Each student must use the same set of questions for their interview.

The topic will be chosen by September 8. 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 10. 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 October 31/Halloween. 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 3 & 10 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 3; 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
The 10 agents of deterioration have become a standard tool for assessing preservation risks to heritage collections. The definition for each risk is fairly straight forward, but they may vary in practice. For instance, a small intaglio in a frame bolted to the wall is not a high risk for theft, but if that same print is stored as one of several hundred in a box, in a high use collection, theft becomes a different issue. You need to assess the material, as well as the environment and policies. Another complication occurs as we are in a pandemic, and many institutions are closed to the public, and in some cases much of the staff is working from home. Routine maintenance and monitoring may be interrupted.

For this assignment, each student will contact someone who works with a specific collection and will agree to be interviewed. It can be someone you know, or it can be a cold call, but you may not be your own informant, or the informant for anyone else in the class. The objective of the interview is to get a sense of which of the 10 agents was considered the biggest threats before the pandemic, and whether those concerns have changed.

This assignment has three parts:

Part I

Due September 22

Devise a list of interview questions. This will be done as a group and some class time will be allocated for this exercise. It is important that you give your informant an idea of how many questions there will be, and how long you expect the interview to take. Each student must use the same set of questions for their interview.
Part II  Complete interview by October 6
Select and informant and perform the interview. Organize the information. This step will be done individually, no two students will interview the same person, so you will need to coordinate sources.

Part III  Summary due October 13
Compare the information each student has collected. Was there any change in attitude or planning? Can you identify trends? Do the attitudes reflect the size or type of institution? Does staff size have an impact on decisions? Did it differ if people had been working in the building, or working from home? We will discuss the results in class, after which, each student will write a summary of the trends they noticed.

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 8: 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.
- September 22: Interview questions due.
- October 6: Interview complete.
- October 13: Summary of interviews due.
- October 31: 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 3 & 10: Discussion of class papers. Collegial. Sadly, we can’t have food this year.
- December 1: Photo and print process identification quiz.
- December 3: Final papers due; post directly to Canvas.
- To be assigned: Individual article presentations.

Grading
Grade points will be distributed as follows:
- Research paper-Final paper 20 points
- Research paper presentation 10 points
- Participation in paper discussions 10 points (5 points each session)
- Article presentation "Journal Club" 20 points
- Agents of deterioration summary 10 points
- Quizzes 5 points
- Attendance and *participation 15 points
- Lab protocol and safety 10 points

*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/gt09-
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.

<<<< Class 1 - 25 August >>>>

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.

Read this for the conceptual picture only; you are not expected to understand the physics here.
Preventive conservation and environmental control

Article presentation:


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 straight forward. 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


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<<<< Class 5 - 22 September >>>>

Basic concepts: Polymers

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...)


Materials and Chemicals

<<<< Class 6 - 29 September >>>>

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.


Johnston, I. (2014, July 13). Blackest is the new black: Scientists develop a material so dark that you can't see it... Retrieved June 28, 2018, from [http://www.independent.co.uk/news/science/blackest-is-the-new-black-scientists-have-developed-a-material-so-dark-that-you-cant-see-it-9602504.html](http://www.independent.co.uk/news/science/blackest-is-the-new-black-scientists-have-developed-a-material-so-dark-that-you-cant-see-it-9602504.html)


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](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.


http://www.bl.uk/aboutus/stratpolprog/collectioncare/publications/booklets/preservation_of_photographic_material.pdf There are other useful resources on the site: http://www.bl.uk/blpac/publicationsleaf.html


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


Applying concepts: Photographic materials
Article presentation:


Applying concepts: Photographic materials (Photo display)
Article presentation:

Discuss papers

Discuss papers
<<< Class 13 - 17 November >>>>
Time based media; Future directions for conservation
Print and photo id quiz


<<< Class 14 - 24 November >>>>
Thanksgiving

<<< Class 15 1 December >>>>
Review; Discussion of final papers