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
Email: pavelka@ischool.utexas.edu
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.

Boersma, F. (2007). *Unravelling textiles: A Handbook for the preservation of textile collections*. London: Archetype

Jurgens, M. (2009). *The digital print: Identification and preservation*. Los Angeles: Getty Conservation Institute.

Lavedrine, B. (2003). *A guide to the preventive conservation of photograph collections* . Los Angeles: Getty Conservation Institute.

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 <u>SUNDAY</u> 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**.

<u>Article presentation</u> "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.

<u>Agents of deterioration observation</u>
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. Collegial. 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:

Research 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	15 points
Quizzes	5 points
Attendance and *participation	20 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/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.

<<<<< Class 1 - 29 August >>>>>
Context and introduction

Anderson, S. (2016, August 21). David's Ankles: How imperfections could bring down the world's most perfect statue. Retrieved 6/28/18 from http://www.nytimes.com/2016/08/21/magazine/davids-ankles-how-imperfections-could-bring-down-the-worlds-most-perfect-statue.html?rref=collection%2Fsectioncollection%2Fmagazine&action=click&contentCollection=magazine&region=rank&module=package&version=highlights&contentPlacement=3&pgtype=sectionfront

Brazil, R., & Chemistry World. (2014, June 28). Modern chemistry techniques save ancient art. Retrieved June 28, 2018, from http://www.scientificamerican.com/article/modern-chemistry-techniques-save-ancient-art/?page=2

Cirino, E. (2018). The environments new clothes: Biodegradable textiles grown from live organisms. Retrieved May 3, 2019 from https://www.scientificamerican.com/article/the-environments-new-clothes-biodegradable-textiles-grown-from-live-organisms/

Grann, David. (2010). The mark of a masterpiece. *The New Yorker,* July 12 – 19. Available on-line through UT Libraries.

Hass, N. (2018). How one man is recreating lost colors. Retrieved May 3, 2019 from https://www.nytimes.com/2018/09/05/t-magazine/pedro-da-costa-felgueiras-recreating-lost-colors.html

Indiana University Bloomington; School of Education. (2005, September 7). How to recognize plagiarism. Retrieved June 28, 2018, from https://www.indiana.edu/~istd/definition.html

Lambert, Simon. (2014). The early history of preventive conservation in Great Britain and the United States (1850-1950). Retrieved June 28, 2018, from http://ceroart.revues.org/3765

Mele, C. (August 2017). Museum visitors damage 800 year old coffin by putting child in it for photo. Retrieved June 28, 2018 from https://www.nytimes.com/2017/08/24/arts/museum-coffin-kid-photo.html

Noel, W. (April 2012). Revealing the lost codex of Archimedes. Retrieved June 28, 2018, from http://www.ted.com/talks/william_noel_revealing_the_lost_codex_of_archimedes?language=en

Owens, T.J. (2017). Getting beyond digital hyperbole and tools for looking ahead. Retrieved June 28, 2018 from http://www.trevorowens.org/2017/06/getting-beyond-digital-hyperbole-tools-for-looking-forward/

Panagiaris, G., Mertzani, M.; Malea, E.; and Maniatis, N. (2008). Towards a binding code of ethics for the conservation and display of human remains. In *15th triennial conference, New Delhi, 22-26 September 2008: preprints/ICOM Committee for Conservation*. Bridgland, Janet (Editor). ICOM Committee for Conservation pp. 364-369. (On Canvas)

Periodic table of the elements in pictures and words. (2016). Retrived July 25, 2018 from http://elements.wlonk.com/index.htm

Povoledo, E. (2018, January 13). *Authenticity of Modigliani works questioned*. New York Times. Retrieved July 11, 2018 from https://www.nytimes.com/2018/01/12/arts/design/modigliani-paintings-authenticity-questioned-genoa.html

Princeton University. (August 2016). When to cite sources. Retrieved June 28, 2018 from https://www.princeton.edu/pr/pub/integrity/pages/cite/

Subramanian, S. (2018, June 15). How to spot a perfect fake: The world's top art forgery detective. Retrieved July 3, 2018, from https://www.theguardian.com/news/2018/jun/15/how-to-spot-a-perfect-fake-the-worlds-top-art-forgery-detective

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.**

<<<<< Class 2 - 5 September >>>>>

Preventive conservation and environmental control
Article presentation:
Article presentation:

American Museum of Natural History. (nd.). (Risk Assessment. Retrieved May 13, 2019 from https://www.amnh.org/research/natural-science-collections-conservation/general-conservation/documentation/risk-assessment

Boersma, F. (2016). Preventive conservation--more than "dusting objects"? An overview of the development of the preventive conservation profession. *Journal of the Institute of Conservation* 39, no. 1 (2016), pp. 3-17 Paper copy in lab.

Canadian Conservation Institute. (n.d.). Ten agents of deterioration. Retrieved June 28, 2018, from http://canada.pch.gc.ca/eng/1444330943476

Canadian Conservation Institute. (n.d.). Preventive conservation guidelines for collections. Retrieved May 3, 2019 from https://www.canada.ca/en/conservation-institute/services/preventive-conservation/guidelines-collections.html

Conservation Center for Art and Historic Artifacts. (2015.) Preservation resource materials. Retrieved June 28, 2018, from http://ccaha.org/publications Become familiar with the resources found here. Some pages are more populated than others.

Image Permanence Institute. (n.d.). Photographic activity test. Retrieved June 28, 2018, from https://www.imagepermanenceinstitute.org/testing/pat (Look over rest of website as well.)

International Council on Archives. (2016). *Archives damage atlas: A tool for assessing damage*. Retrieved May 13, 2019, from http://www.nationaalarchief.nl/sites/default/files/docs/nieuws/archives_damage_atlas.pdf

Kiefer, K. IMA conservation: The Oddy test. (2013) Retrieved June 28, 2018, from https://www.youtube.com/watch?v=HKDM6kLgdys

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.

Manyanga, M., Chirikure, S. (Eds). (2017). *Archives, Objects, Places and Landscapes*. Mankon, Bamenda:Langaa Research & Publishing.
Read:
Chapter 1, "Archives, objects, places and landscapes: the multidisciplinary and decolonizing imperative. pp. 1-14.
Chapter 17, "The monument we deserve: authenticity and the conservation of dry-stone walls at Naletale National Monument, Zimbabwe, pp. 379-397.
Chapter 18, "Myths as metaphors: understanding narratives in sustaining sacred landscapes in Zimbabwe and Australia, pp. 399-419.

McLeod, D. I. (2014). Determining treatment priorities for ecclesiastical textiles using significance and conservation assessments. Retrieved May 3, 2019 from https://www.sciencedirect.com/science/article/pii/S1296207413002355

Measday, D. (2017). A summary of ultra-violet fluorescent materials relevant to Conservation. Retrieved May 13, 2019, from https://aiccm.org.au/national-news/summary-ultra-violet-fluorescent-materials-relevant-conservation

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

National Archives of Australia. (2013). About the photographic activity test. Retrieved June 28, 2018, from http://www.naa.gov.au/records-management/agency/preserve/physical-preservation/pat.aspx

Taylor, J. (2018). In the quest for certainty: tensions from cause and effect deductions in preventive conservation. *Journal of the Institute of Conservation* 41, no. 1 pp. 16-31 Retrieved May 13, 2019 from https://www.tandfonline.com/doi/full/10.1080/19455224.2017.1416649?scroll=top&needAccess=true

Tetreault, Jean. (2018). Products used in preventive conservation. Retrieved July 3, 2018, from https://www.canada.ca/en/conservation-institute/services/conservation-preservation-publications/technical-bulletins/products-used-preventive-conservation.html - a2b

<<<<< Class 3 - 12 September >>>>>
Preventive conservation and environmental control
Using the psychrometric chart
Article presentation:
Article presentation:

Carrier. (n.d.). Retrieved June 28, 2018, from http://www.greenbuildingadvisor.com/sites/default/files/psychrometric-chart-quantities-carrier.jpg This is an image of the psychrometric chart. I will hand out paper copies to use in class.

Getty Conservation Institute. (2014). Conservation perspectives. Retrieved May 13, 2019 from http://www.getty.edu/conservation/publications_resources/newsletters/29_2/index.html Read everything that comes before GCI news.

Henderson, J. (2018). Reflections on the psychological basis for suboptimal environmental practices in conservation. *Journal of the Institute of Conservation* 41, no. 1 pp. 32-45 DOI: 10.1080/19455224.2017.1422777 Retrieved July 19, 2019 from https://www.tandfonline.com/doi/full/10.1080/19455224.2017.1422777

Klein, J. (2019). *What termites can teach us about cooling our buildings*. Retrieved May 10, 2019 from https://www.nytimes.com/2019/03/26/science/termite-nest-ventilation.html?action=click&module=RelatedLinks&pgtype=Article

The National Archives. *PAS 198:2012 Specification for managing environmental conditions for cultural collections*. London: British Standards Institution. (On Canvas.)

Padfield, T. (2014) *Air exchange between an enclosure and its surroundings*. Retrieved from http://www.conservationphysics.org/airex/airexchange.php

<<<<< Class 4 - 19 September >>>>>
Basic concepts: Polymers
Article presentation:
Article presentation:

How to identify plastic materials using the burn test. (2014). Retrieved June 28, 2018, from http://www.boedeker.com/burntest.htm

Boersma, F. (2007). *Unravelling textiles: A Handbook for the preservation of textile collections*. London: Archetype. pp. 1-12

Chapman, C. and O'Connor, H. (1964). Magic molecule. Retrieved June 28, 2018, from http://www.nfb.ca/film/magic_molecule

Plastics news Europe. Retrieved May 13, 2019, from http://www.plasticsnewseurope.com/ Take a look around the site. It's a trade publication with some interesting articles that change frequently.

Haude, M. E., O'Hern, R., and Nunberg, S. "Plastics are forever: Wraps, tools, films, and containers used in conservation." AIC News, September 2011. Retrieved June 28, 2018, from http://www.conservation-us.org/docs/default-source/aic-news/2011-05-Sept-AICNews.pdf

Kean, S. (2009, July 1). Does plastic last forever? Slate. Retrieved June 28, 2018, from http://www.slate.com/id/2221963/

Knowledge network. Science 360. Retrieved June 28, 2018, from http://science360.gov/topic/Chemistry/ This site often has interesting research on polymers but the segments change frequently.

Lim, K. These cultural relics are made of plastic. Now they're falling apart. NY Times, 2018 August 28. Retrieved August 28, 2018 from https://www.nytimes.com/2018/08/28/science/plastics-preservation-getty.html?action=click&module=Editors+Picks&pgtype=Homepage

Microgalleria main directory. (2005). Retrieved June 28, 2018, from http://pslc.ws/macrog/maindir.htm

Smithsonian Institution Scholarly Press. (2017). *The Age of Plastic: Ingenuity and Responsibility*. *Proceedings of the 2012 MCI Symposium*. Retrieved June 28, 2018, from http://opensi.si.edu/index.php/smithsonian/catalog/book/155 Read: Preserving plastic: Challenges in the conservation of modern art objects by Thea van Oosten and anything else of interest.

POPART: Preservation of plastic artefacts in museum collections. (n.d.). Retrieved July 3, 2018, from http://popart-highlights.mnhn.fr/index.html Look over site.

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...)

Syracuse University Libraries. (2013). Plastics collection. Retrieved June 28, 2018, from http://plastics.syr.edu/

<<<<< Class 5 - 26 September >>>>>
Appreciation and aesthetics
HVAC We will be touring the basement of the building. Dress appropriately. No sandals.
Meet at Blanton at 8:55
Guest speakers: Ralph Perez, Gabriela Truly, Holly Borham

Ash, N., Homolka, S., Lussier, S. (2014). Descriptive terminology for works of art on paper. Retrieved June 28, 2018, from https://www.philamuseum.org/doc_downloads/conservation/DescriptiveTerminologyforArtonPaper.pdf

Color IQ test. (n.d.) Retrieved June 28, 2018, from http://xritephoto.com/cool-tools

Hoffman, C., Hartl, A., Ahn, K. et. al. (2015). Studies on the conservation of verdigris on paper. *Restaurator, 36(2)*, 147-182. Available on-line through UT Libraries.

Pigments through the ages. (2013). Retrieved June 28, 2018, from http://www.webexhibits.org/pigments/intro/uv.html

Rowlett, S. (2013, June 18). How to destroy a James Turrell. Retrieved June 28, 2018, from http://hyperallergic.com/73609/how-to-destroy-a-james-turrell/

10 Colors that faded away. (nd.) Retrieved June 28, 2018, from http://media.boingboing.net/wp-content/uploads/2011/10/listomania-1-1.jpg

X-Rite Inc. (2013). Color test. Retrieved http://www.xrite.com/custom_page.aspx?pageid=77&lang=en

271 years before Pantone, an artist mixed and described every color imaginable in an 800-page book. (n.d.). Retrieved June 28, 2018, from http://www.thisiscolossal.com/2014/05/color-book/

<<<<< Class 6 - 3 October >>>>>
Basic concepts: Dyes and colorants; examination and analysis
Article presentation:
Article presentation:

Ball, P. (2001). In *Bright earth: Art and the invention of color* (pp. 24-71). New York: Farrar, Straus and Giroux. Personal copy located in Paper Lab.

Boersma, F. (2007). *Unravelling textiles: A Handbook for the preservation of textile collections*. London: Archetype. pp. 47-60.

Brazil, R. (2017). Coloring in the past. Retrieved June 28, 2018, from https://www.chemistryworld.com/feature/raiders-of-the-lost-pigments/3007237.article

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**.

Cosentino, A. (2013, April 15). Multispectral image analysis for art. Retrieved May 13, 2019. from http://chsopensource.org/2013/04/15/multispectral-image-analysis-for-art-examination-multispec/

Giesbrecht, J. (2015, August 28). How the ballpoint pen killed cursive. *Atlantic*. Available through UT Libraries.

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

Small world image gallery. (2017). Retrieved June 28, 2018, from https://www.nikonsmallworld.com/galleries/photomicrography-competition

Spring, M., Liang, H., Peric, B., Saunders, D., & Podoleanu, A. (2008). Optical coherence tomography – a tool for high resolution non-invasive 3D-imaging of the subsurface structure of paintings. *ICOM Committee for Conservation Graphic Documents*, pp. 633-640. On Canvas.

Smithsonian X3D. (2014). Retrieved June 28, 2018, from, http://3d.si.edu/ Fun site. Look around.

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
Article presentation:
Article presentation:

Art of the photogravure. (n.d.) Retrieved June 28, 2018, from http://www.photogravure.com/

Baty, J.W., Maitland, C., Minter, W., Hubbe, M. and Jordan-Mowery, S. (2010). "Deacidification for conservation," ***BioResources*** 5(3), 1955-2023. Search the title and journal and the PDF is available. Part of this article is dense, but just take the chemistry on faith.

Grossman, E. (2014). Why receipts and greasy fingers shouldn't mix. Retrieved June 28, 2018, from http://time.com/3531776/bpa-receipts-fast-food/

Hubbe, M. A. , and Bowden, C. (2009). Handmade paper, review, *BioResources* 4(4), 1736-1792. Search the title and journal and the PDF is available.

Image Permanence Institute. (2014). Graphics atlas. Retrieved June 28, 2018, http://www.graphicsatlas.org/

Iron gall ink website. Retrieved June 28, 2018, from http://irongallink.org/igi_index.html

Krill, J. (2002). Introduction. In *English artists' paper: Renaissance to regency* (pp. 1-41). Winterthur, Delaware: Oak Knoll. (In lab.)

Schweidler, M. (2007). Paper manufacture. In R. Perkinson (Ed. & Trans.), *The restoration of engravings, drawings, books and other works of paper* (pp. 41-45). Los Angeles: Getty. (Hard copy in lab.)

Stephens, C. H., Barrett, T., Whitmore, P.M., Wade, J., Mazurek, J., & Schilling, M. (2009). Composition and condition of naturally aged papers. *Journal of the American Institute for Conservation, 47*, 201-216. Available through JSTOR

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/

What is a print? (n.d.). Retrieved June 28, 2018, from http://www.moma.org/interactives/projects/2001/whatisaprint/flash.html

<<<<< Class 8 - 17 October >>>>>
Applying concepts: Printing processes and photographic materials
Article presentation:
Article presentation:

Aardenberg Imaging and Archives. (2016). Light fade test results. Retrieved June 28, 2018, from http://www.aardenburg-imaging.com/

Benson, R. (2008). *The printed picture*. New York: Museum of Modern Art. (Required text; copy in lab) Skim the entire text.

Clark, S. (2009). *Preservation of photographic material* (2009 ed.). London: British Library, Preservation Advisory Centre. Retrieved June 28, 2018, from 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

Dewitz, A. (2015). Printwiki :The free encyclopedia of print. Retrieved June 28, 2018, from http://printwiki.org/Front_Page

George Eastman House (2016). Retrieved June 28, 2018, from https://www.eastman.org/ Look around the site. It has useful information but changes frequently.

Griffiths, A. (2016). Luminous-lint. Photography: History, evolution and analysis. Retrieved June 28, 2018, from http://www.luminous-lint.com/app/home/ This has become a website that requires a subscription but there is some useful information available for free.

Jürgens, M. (2017). The eye. Retrieved June 28, 2018, from http://the-eye.nl/ This is a useful reference site.

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

Photoseed collection. (n.d.). Retrieved June 28, 2018, from http://photoseed.com/

Van Roessel, Annemarie. "Through a Glass, Brightly: Re-viewing a Lost Architectural and Pedagogical Landscape Through Historic Lantern Slides." Art Documentation: Journal of the Art Libraries Society of North America 22, no. 1 (2003): 4-8. Retrieved June 28, 2018, from http://www.jstor.org/stable/27949228

Weaver, G. (2008) *Guide to Fiber-Base Gelatin Silver Print Condition and deterioration*. New York: George Eastman House. Retrieved from http://gawainweaver.com/library/

Weaver, G. (2013). Updated photo id. chart. Retrieved June 28, 2018, from http://gawainweaver.com/images/uploads/Process ID Chart_19th Century Photo.pdf

<<<<< Class 9 - 24 October >>>>>
Applying concepts: Photographic materials
Article presentation:
Article presentation:

Digital print identification (2004). Retrieved June 28, 2018, from http://aic.stanford.edu/sg/emg/juergens/

Frey, F., Heller, D., Kushel, D., Vitale, T., Warda, J., & Weaver, G. (2008). *The AIC guide to digital photography and conservation documentation* (J. Warda, Ed.). Washington, DC: AIC. Copies of first and second editions in lab.

Image Permanence Institute. (2016). Digital print preservation portal. Retrieved June 28, 2018, from http://www.dp3project.org/

Image Permanence Institute. (2016). Filmcare.org. Retrieved June 28, 2018, from https://www.filmcare.org/

Messier, P. (2015). Conservation of photographs and works on paper. Retrieved June 28, 2018, from http://www.paulmessier.com/ Good site to know about.

Stulik, D. and Kaplan, A. (2013). The Atlas of Analytical Signatures of Photographic Processes. Retrieved June 28, 2018, from http://www.getty.edu/conservation/publications_resources/pdf_publications/atlas.html

Update on timeline of historical film colors. (n.d.). Retrieved June 28, 2018, from http://filmcolors.org/

Wilhelm Imaging Research. (n.d.) Retrieved June 28, 2018, from http://www.wilhelm-research.com/index.html This site is for reference. Take a look at what is found here.

<<<<< Class 10 - 31 October >>>>>
Applying concepts: Photographic materials (Photo display)

<<<<< Class 11 - 7 November >>>>>
Discuss papers

<<<<< Class 12 - 14 November >>>>>
Discuss papers

<<<<< Class 13 - 21 November >>>>>
Applying concepts: Sound
Guest speaker: Sarah Norris

Audio Engineering Society. (2016). An audio timeline. Retrieved June 28, 2018, from http://www.aes.org/aeshc/docs/audio.history.timeline.html

Bigourdan, J.L., Reilly, J. et al. (2006). The preservation of magnetic tape collections: A perspective. Final report to National Endowment for the Humanities, Division of Preservation and Access. Retrieved June 28, 2018, from https://www.imagepermanenceinstitute.org/webfm_send/303

Friedlander, A., Flecker, D., Romano, F., Lyman, P., Brylawski, S., Ide, M., et al. (2002). Building a national strategy for digital preservation: Issues in digital media archiving. Retrieved June 28, 2018, from http://www.clir.org/pubs/reports/pub106/contents.html

Frost, H., (Ed.). (2008). *Audio preservation*. Retrieved June 28, 2018, from http://palimpsest.stanford.edu/bytopic/audio/

Ghosh, P. (2012, December 20). Curators discover first recordings of Christmas Day. [Newsgroup post]. Retrieved June 28, 2018,from BBC News website: http://www.bbc.co.uk/news/science-environment-20772246

Gray, C. (2013, May). We had no idea what Alexander Graham Bell sounded like. Until now. *Smithsonian*. Retrieved June 28, 2018, from http://www.smithsonianmag.com/history-archaeology/We-Had-No-Idea-What-Alexander-Graham-Bell-Sounded-Like-Until-Now-204137471.html

Hall, K. (2013, July 22). Music historian unlocks sounds from 1889 record engraving. *Indianapolis Star*. Retrieved June 28, 2018, from https://www.usatoday.com/story/news/nation/2013/07/22/professor-plays-photo-vintage-vinyl/2574615/

Listen as Albert Einstein reads 'The common language of science' (1941). (2013, March 21). Retrieved June 28, 2018, from http://www.openculture.com/2013/03/listen_as_albert_einstein_reads_the_common_language_of_science_1941.html

Media Preservation. (2012, June 20). Extracting audio from pictures. Retrieved June 28, 2018, from http://mediapreservation.wordpress.com/2012/06/20/extracting-audio-from-pictures/

NEDCC. (2014, January 10). IRENE/3D Seeing soundblog. Retrieved June 28, 2018, from http://www.nedcc.org/audio-preservation/irene-blog/

Online audio collections presentations. (2012, November 27). Recorded sound reference center database. Retrieved June 28, 2018,from http://www.loc.gov/rr/record/onlinecollections.html

Science Museum Group Journal. (2017). Sound and vision. Retrieved June 28, 2018, from http://journal.sciencemuseum.org.uk/issues/spring-2017/ Read or skim the articles associated with sound. There is good information for photographic images as well.

<<<<< Class 14 - 28 November >>>>>
Thanksgiving

<<<<< Class 15 6 December >>>>>
Time based media; Future directions for conservation
Print and photo id quiz

Curatorial resource for upstart media bliss. (2013.) Retrieved June 28, 2018, from http://www.crumbweb.org/

Electronic Media Group. (2010, September 1-2). Tech focus: Caring for video art. Retrieved June 28, 2018, from http://resources.conservation-us.org/techfocus/tech-i-speakers-tw/

Guggenheim. (2014). Time based media. Retrieved June 28, 2018, from http://www.guggenheim.org/new-york/collections/conservation/time-based-media

Jonas, J. (2010, January 13). Joan Jonas discusses Mirage. Retrieved June 28, 2018, from http://youtu.be/yiYsGBMHNqI

Richmond, A., & Bracker, A. (Eds.). (2009). *Conservation: Principles, dilemmas and uncomfortable truths*. Amsterdam: Elsevier. Available electronically through UT libraries.

Smithsonian. (n.d.) Time based media art. Retrieved June 28, 2018, from http://www.si.edu/tbma/majorprojects