

Conservation's Digital Landscape: one conservator's perspective



Nancie Ravenel
Objects Conservator, Shelburne Museum

What I've been asked to talk about:

- key resources I use as a conservator
- expectations
- what is missing
- what remains problematic



The Adirondacks from Shelburne House,
Shelburne Farms

Some resources that have influenced my thinking on this topic

Fitzpatrick, Kathleen. 2011. *Planned Obsolescence: Publishing, Technology, and the Future of the Academy*. New York: New York University Press.

Kronkright, Dale, Greg Bearman, John Delaney, John ffrench, and Greg Williamson. 2013. "Quantitative Imaging: From Documentation to Discovery" presented at the Museum Computer Network 2013, December 2, Montreal. <https://www.youtube.com/watch?v=Q2ozGSXXagU>.

Long, Matthew P., and Roger C. Schonfeld. 2013. "Supporting-the-Changing-Research-Practices-of-Chemists". Ithaka. <http://www.sr.ithaka.org/research-publications/supporting-changing-research-practices-chemists>.

———. 2014. "Supporting the Changing Research Practices of Art Historians." April 30. <http://www.sr.ithaka.org/research-publications/supporting-changing-research-practices-art-historians>.

McCoy, Richard. 2013. "Making New Connections to Collections Care" MCN 2012: Ignite MCN at EMP Museum. http://www.youtube.com/watch?v=AKlkw9UFYDQ&feature=youtube_gdata_player.

Quigley, D. Samuel, and Elizabeth Neely. 2011. "Integration of Print and Digital Publishing Workflows at the Art Institute of Chicago." In *Proceedings*. Toronto: Archives and Museum Informatics. http://www.museumsandtheweb.com/mw2011/papers/integration_of_print_and_digital_publishing_wo.html.

Schonfeld, Roger C., and Jennifer Rutner. 2012. "Supporting the Changing Research Practices of Historians." December 7. <http://www.sr.ithaka.org/research-publications/supporting-changing-research-practices-historians>.

Zorich, Diane. 2012. "Transitioning to a Digital World: Art History, Its Research Centers, and Digital Scholarship". The Samuel H. Kress Foundation and The Roy Rosenzweig Center for History and New Media, George Mason University. http://www.kressfoundation.org/uploadedFiles/Sponsored_Research/ahrc_report.pdf.

Thanks also to

Members of the CoOL Working Group

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Richard McCoy

Bonnie Naugle

Rachael Arenstein

Eric Pourchot

Eryl Wentworth

The screenshot shows the CoOL website homepage in a browser window. The browser title is "Conservation OnLine - CoOL" and the address bar shows "cool.conservation-us.org". The page features a navigation menu on the left with items like "Search CoOL", "ConsDistList", "Publications/List Archives", "Organizations", "Conservation Topics", "About CoOL", and "Donate in support of CoOL". The main content area has a "Welcome to CoOL" section with a call to action to help plan the digital future of conservation and preservation, including a link to a survey. Below this is a "Resources for Conservation Professionals" section. On the right side, there is a "CoOL Hosted Sites" section listing various resources like "Albumen", "ANAGPIC", "HERMITAGE", "TAKIACT", "Video Preservation", and "WAAC".

Conservation OnLine - CoOL
cool.conservation-us.org

Search CoOL

CoOL

Conservation OnLine

An online resource by & for conservators & related fields, operated by the Foundation of the American Institute for Conservation

Welcome to CoOL

Help Plan the Digital Future of Conservation and Preservation

Please help FAIC gather information about the digital landscape of the conservation and preservation professions. By taking a short online survey, you can help us develop a snapshot of how computer programs, databases, and web-based resources are being used today by those who care for cultural collections, and what the digital needs and wishes might be for the future. The survey is at:

<https://www.surveymonkey.com/s/CLGDQNK>

The FAIC online survey is part of a larger planning grant from The Andrew W. Mellon Foundation, supplemented with funds from the Samuel H. Kress Foundation and the Getty Foundation. The grants will help fund research, surveys, and discussions to determine how digital resources are currently being used, what resources are needed, and how FAIC might best serve the conservation profession moving forward. The study is expected to yield valuable information regarding the future of FAIC's Conservation OnLine and Conservation DistList resources.

Resources for Conservation Professionals

Conservation OnLine (CoOL) is a freely accessible platform to generate and disseminate vital resources for those working to preserve cultural heritage worldwide. Through the support of the [Foundation of the American Institute for Conservation](#), CoOL is committed to growing and sustaining these resources into the future. As an authoritative and trusted source of information, CoOL serves to foster, convene, and promote collaboration.

Use the navigation at left to:

- Search within CoOL
- Access the [Conservation DistList](#) archives and mailing list
- Peruse the [publications](#) archived on CoOL (including JAIC, the Paper Conservation Catalog, and postprints from AJC's BPG, EMG, PMG, and WAG specialty groups).
- Access the many [sites and organization](#) that are hosted or mirrored on

CoOL Hosted Sites:

- Albumen
- ANAGPIC Student Conference Papers
- HERMITAGE Hermitage Photograph Conservation Initiative
- TAKIACT (Archaeological Conservators in Turkey)
- Video Preservation
- WAAC (Western Association for Art Conservation)

CoOL Hosted Archives:

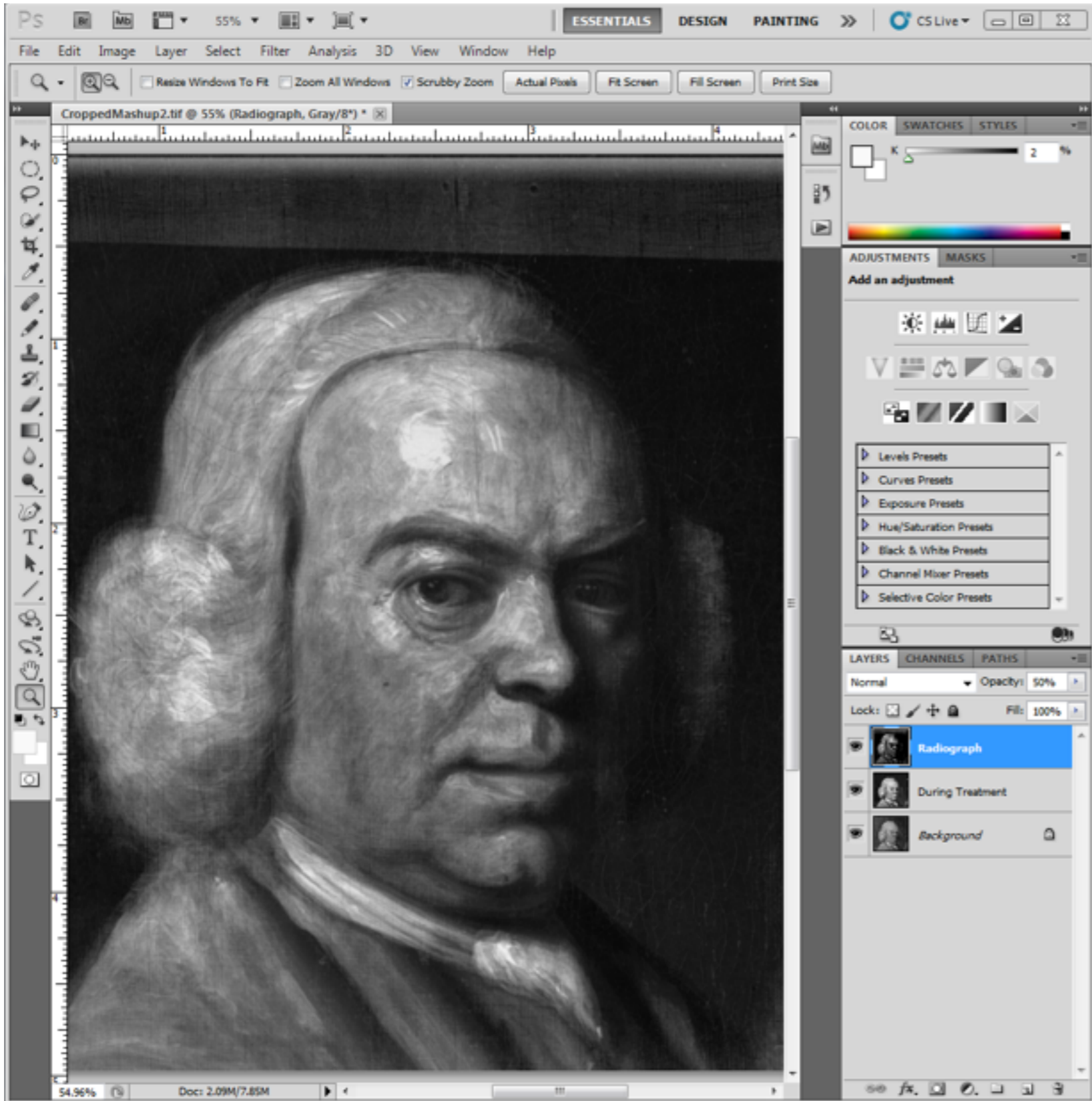
What I do in the digital landscape:

- make stuff.
- find stuff.
- use & organize what I find & make.
- share what I've learned.

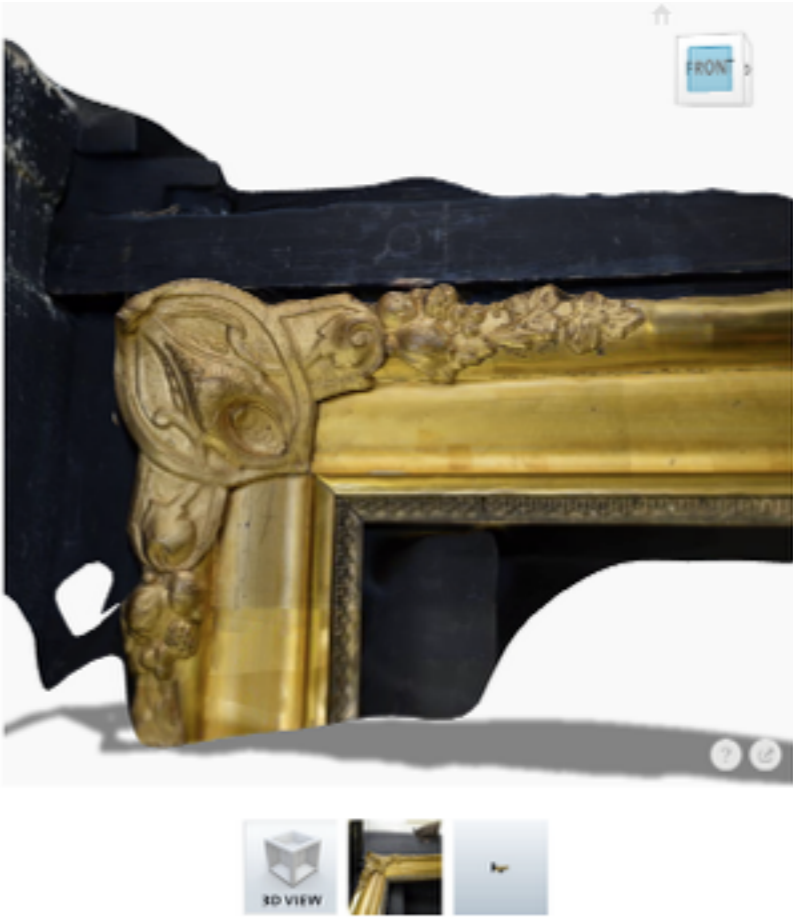


The view from my house.

Some examples of things I produce:



Using Photoshop for image processing & analysis



Beginning to experiment with 3D images



Beginning to experiment with 3D printing

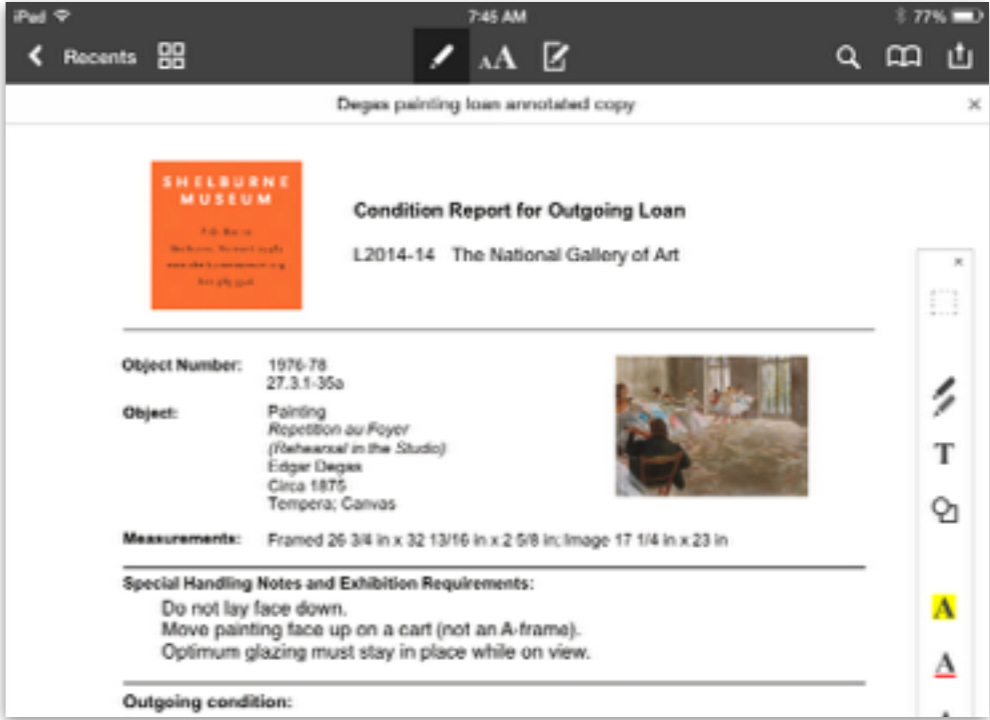
Some examples of things I produce:



3D reconstructions from CT



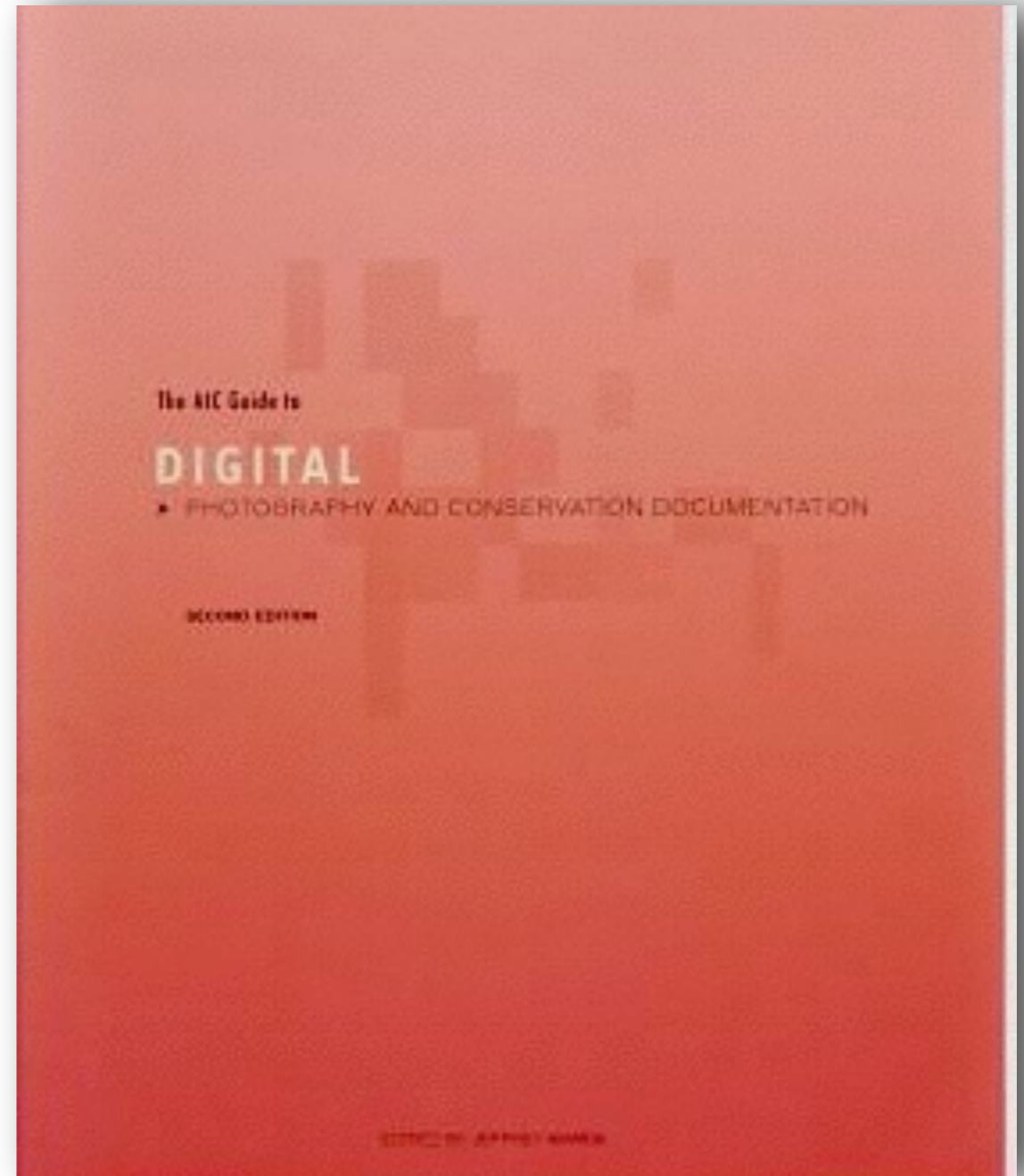
video



Reports, at least initially generated by a collections management database

What's needed/problematic

- continue to develop recommended practices/ standards for creation, processing & preservation of digital assets
- continue to develop & evaluate inexpensive methods of examining works of art
- give attention to how assets are created so that they can be easily shared
- Adobe's new licensing model increases expense of doing work



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Search > Browse

Examples of what's easy for me to search

*Not an exhaustive list *Your mileage may vary

- CoOL/CoOL DistList
- jurn.org
- AATA
- BCIN
- JSTOR
- Google Scholar/Google Books/
Google Image/Google/Google
Art Project
- CAMEO
- Digital Public Library of
America (dp.la)
- WorldCat
- Internet Archive
- SIRIS
- Other art museum collection
and other databases on their
websites

Faceted Search > Google Custom Search; Google Scholar has its charms.

The image displays three overlapping browser windows illustrating faceted search capabilities:

- WorldCat (Top Left):** Search results for "funori" in English. The left sidebar shows filters for Format (All Formats, Article, Book), Author (Benito, Maria, Angelina Barro, D'Sa, Casner), Year (2012, 2002, 2009, 2003, 1985), Language (All Languages, English), and Topic (Art & Architecture, Engineering & Tech.).
- AATA Online (Middle):** Search results for "funori". The left sidebar shows filters for Database (AATA, OCLC, NOCA), Doc Type (Journal article, Book chapter, Preprint), Language (English, German, Japanese, Italian, Hungarian), and Year Pub (2010-2014, 2000-2009, 1990-1999, 1980-1989, 1970-1979).
- Google Scholar (Bottom Right):** Search results for "funori". The left sidebar shows filters for Articles, Case law, My library, Any time (Since 2014, Since 2013, Since 2010, Custom range...), Sort by relevance, Sort by date, Include patents, and Include citations. A red circle highlights a link to "[HTML] from conservation-us.org" in the search results.

There's lots of grey
literature in our field.

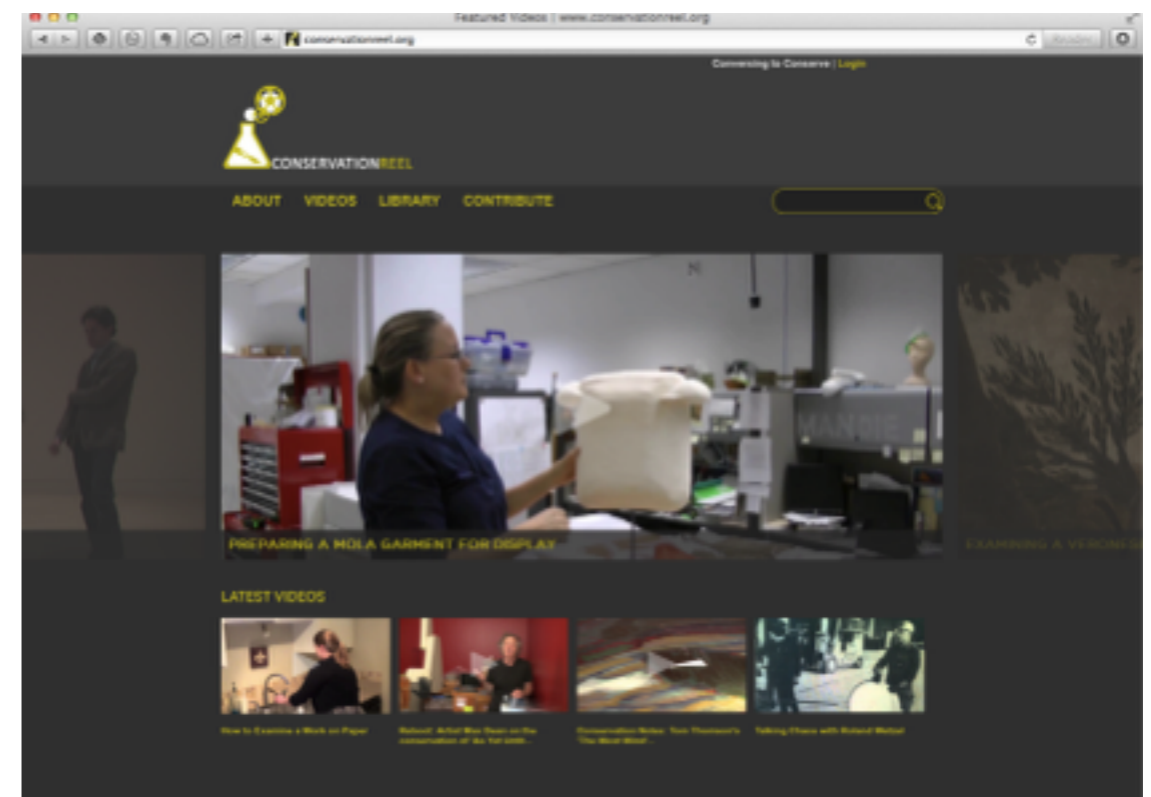
It may or may not be easy to find.



Newsletters



Research blogs & websites



Video

What's missing/problematic

- many places to look for information on caring for cultural objects
- terminology
- inconsistency of metadata applied to some resources
- metadata/keywords can be read by reference management; facilitates search



Photograph of Card Catalog in Central Search Room, 1942. US national Archives Local Identifier: 64-NA-320, arcweb.archives.gov/arc/action/ExternalIdSearch?id=3493244

If you can't find it, it doesn't exist.

what's harder to find & access.

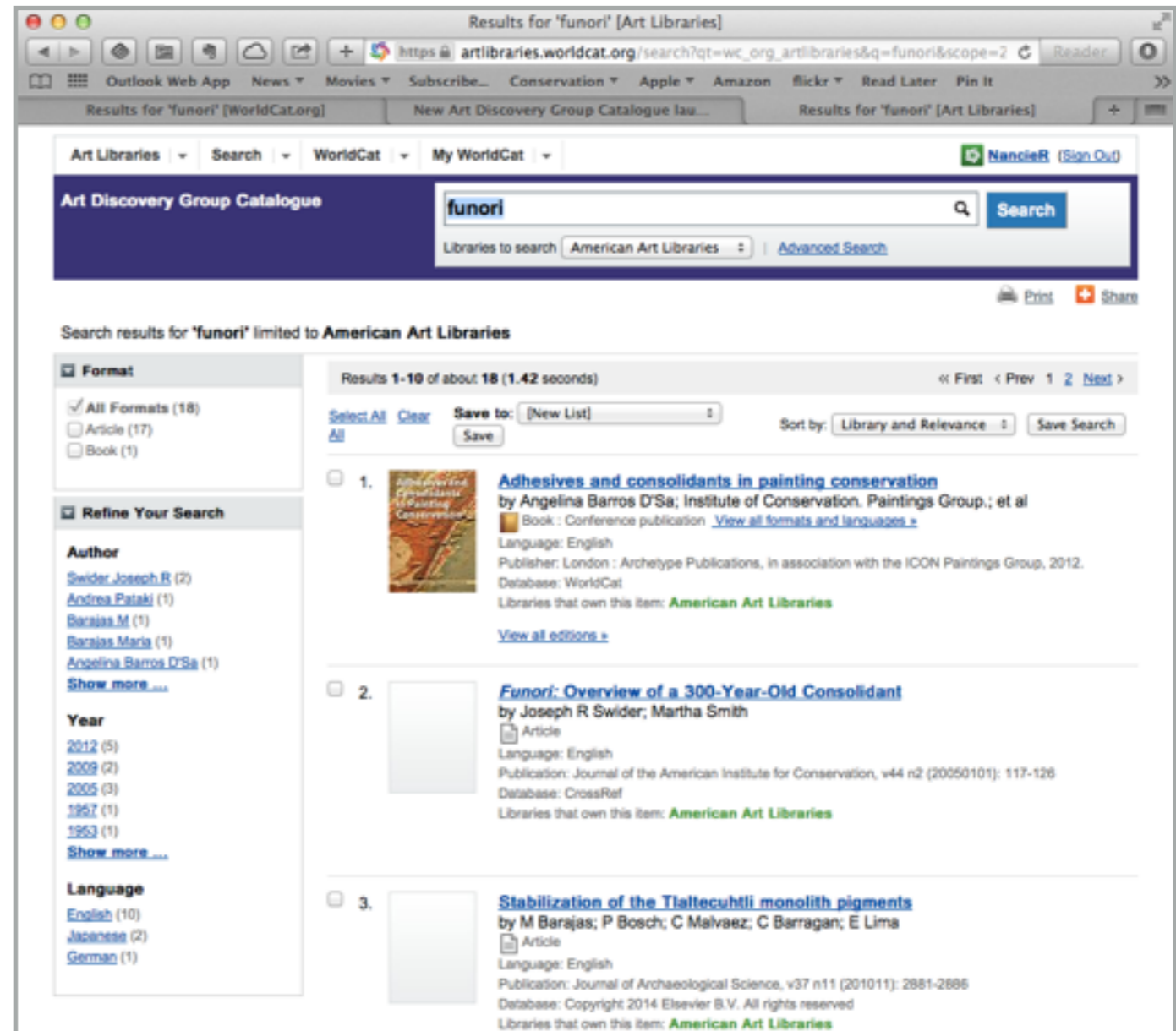
- AIC Specialty Group Postprints that are not on CoOL
 - Inconsistently abstracted within AATA
 - Manner of distribution make access challenging
- posts in AIC Specialty Group electronic mailing list archives are difficult to access due to lack of keyword search
- Conservators papers within archives
 - often have skeletal finding aids
 - information is needed about which archives that will take conservation records
- ARTstor, articles on publisher's websites (i.e. Springer, Elsevier)
- Images of comparative objects that aren't fine art

"soapbox zone" by Flickr user ruminatrix.

<https://flic.kr/p/6HQSUD> Used under a CC BY-NC-ND 2.0 license

Improve search

- linked resources?
- combining resources?
- related papers?
- more faceted search
- better options for searching for related objects.



The screenshot shows a web browser window displaying search results for 'funori' on the WorldCat Art Libraries platform. The page title is 'Results for 'funori' [Art Libraries]'. The search bar contains 'funori' and the search button is labeled 'Search'. Below the search bar, there are options for 'Libraries to search' (set to 'American Art Libraries') and a link to 'Advanced Search'. The search results are limited to 'American Art Libraries' and show 18 results. The first three results are:

- Adhesives and consolidants in painting conservation** by Angelina Barros D'Sa; Institute of Conservation. Paintings Group.; et al. Book : Conference publication. [View all formats and languages >](#)
Language: English
Publisher: London : Archetype Publications, in association with the ICON Paintings Group, 2012.
Database: WorldCat
Libraries that own this item: **American Art Libraries**
[View all editions >](#)
- Funori: Overview of a 300-Year-Old Consolidant** by Joseph R Swider; Martha Smith. Article.
Language: English
Publication: Journal of the American Institute for Conservation, v44 n2 (20050101): 117-126
Database: CrossRef
Libraries that own this item: **American Art Libraries**
- Stabilization of the Tlaltecuhтли monolith pigments** by M Barajas; P Bosch; C Malvaez; C Barragan; E Lima. Article.
Language: English
Publication: Journal of Archaeological Science, v37 n11 (201011): 2881-2886
Database: Copyright 2014 Elsevier B.V. All rights reserved
Libraries that own this item: **American Art Libraries**

New Art Discovery Group option within World Cat.
Thank you, Getty Research Institute & Kress Foundation!

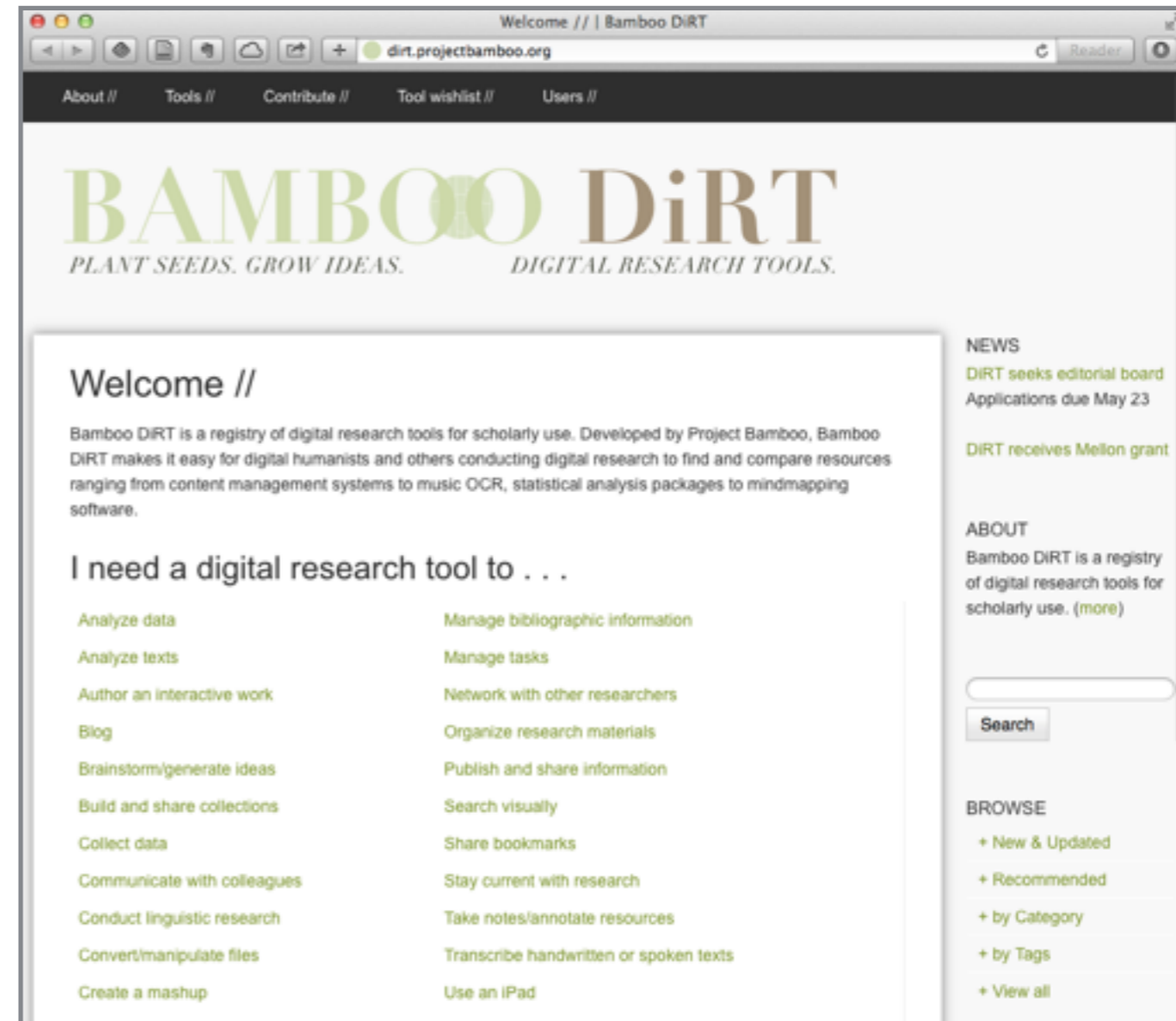
What I do in the digital landscape:

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Digital tools

- ideally, work cross-platform/browser based & sync across devices.
- ideally, work together
- allow for exporting or sharing
- may or may not be used on mobile devices
- can allow you to look at your practice in new/different ways
- Tools I use help me with:
 - note taking & management
 - reference management
 - image & document annotation
 - image analysis
 - time tracking



dirt.projectbamboo.org

BURLINGTON, VT

Risk Summary	Preservation Metrics	Data Overview
Natural Aging: OK	TWPI: 45	Start: 2011-05-26
Mold Risk: RISK	MRF: 4.94	End: 2012-05-27
Metal Corrosion: RISK	%ENC Max: 17.2	T°F Mean: 50.5
Mechanical Damage: RISK	%ENC Min: 9.6	%RH Mean: 69.1
	%DC Max: 2.11	DP°F Mean: 40.4

RUTLAND STATE, VT

Risk Summary	Preservation Metrics
Natural Aging: OK	TWPI
Mold Risk: RISK	MRF
Metal Corrosion: RISK	%ENC Max
Mechanical Damage: RISK	%ENC Min
	%DC Max

IPI's eClimate Notebook

Modular Cleaning Program

Before beginning this session, please enter some background information about yourself and this project.

Identify yourself:
Please enter or correct your name:

Identify the artwork:
This information will be used to identify this cleaning for future reference and to provide the occasional artwork-specific hint.

This artwork is a:

Describe the artwork:

And, in this cleaning, you wish to remove from:

Identify the type of cleaning:
 complex simple
 Aqueous
 Solvent
 Solvent Gel
 Emulsion

... and the Solution Set to be used: (click on the Set's name for more information)

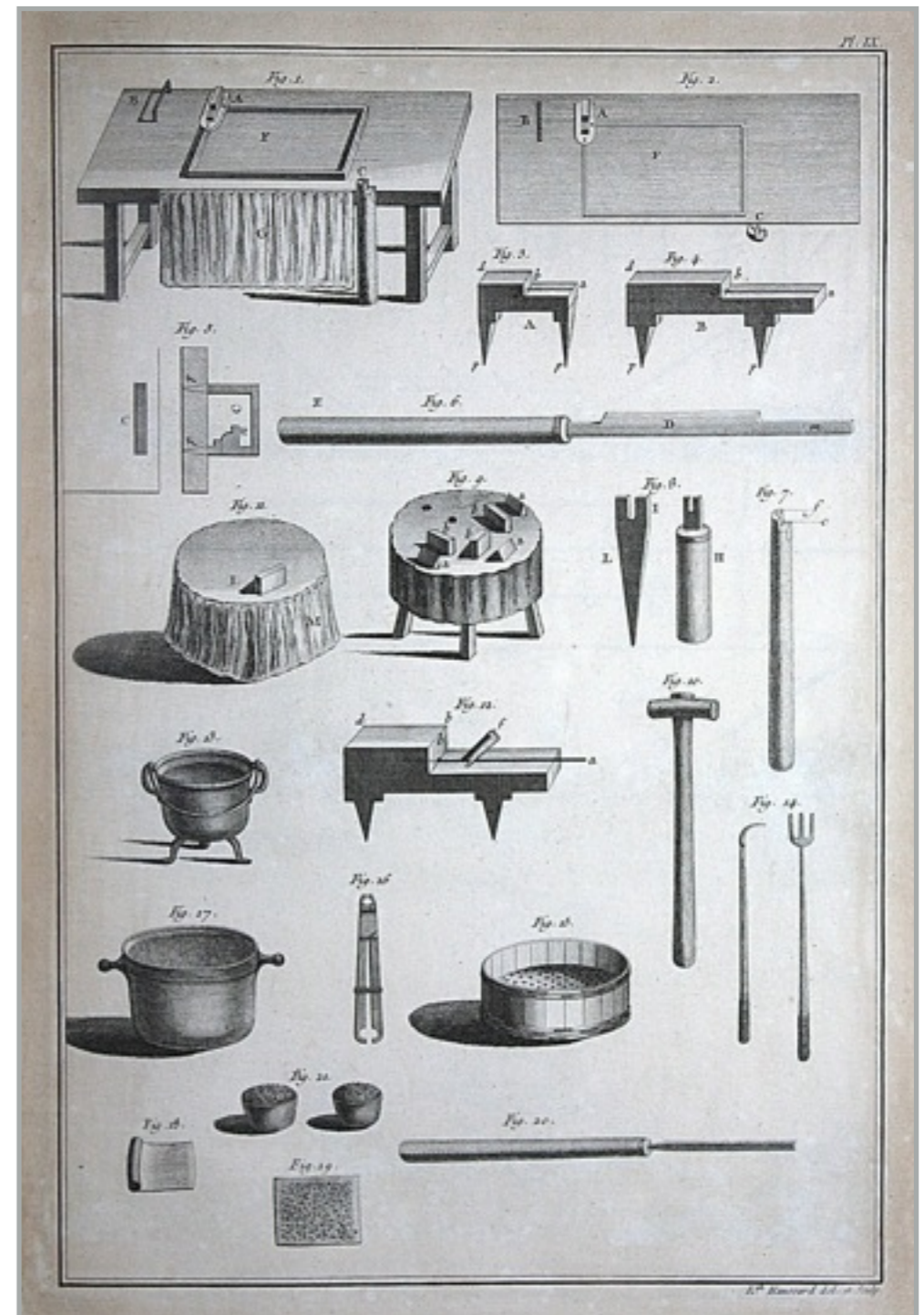
or, change the Solution Set to:

Chris Stavroudis' Modular Cleaning Program

Databases offer structure for documenting & analyzing work.

What's missing/problematic

- electronic lab notebook?
 - not ideal when using liquids
- measuring the results of treatments using computational methods
- good tools for comparing, annotating, & adding metadata to images on mobile devices
- improved cooperation between tools



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From the AIC Code of Ethics:

X. The conservation professional shall contribute to the evolution and growth of the profession, a field of study that encompasses the liberal arts and the natural sciences. This contribution may be made by such means as continuing development of personal skills and knowledge, sharing of information and experience with colleagues, adding to the profession's written body of knowledge, and providing and promoting educational opportunities in the field.

XI. The conservation professional shall promote an awareness and understanding of conservation through open communication with allied professionals and the public.

Some options for sharing & collaborating with colleagues

- email, electronic mailing lists & forums
- AIC wiki
- research blogs & wikis for project collaboration & peer review
- document repositories like ResearchGate.net & academia.edu
- shared bibliographies on reference management systems like zotero.org & mendeley.com
- collaboration & document sharing software like Basecamp, GoogleDocs & Dropbox
- social media platforms, especially those which allow for real-time interaction like Google Hangout and Twitter

The image shows a screenshot of a PBworks wiki page titled "Pemulen TR2". The page content includes a technical description of the polymer, a chemical structure diagram, and a discussion thread. The discussion thread features three comments from Dale Kronkright and Nancie Ravenel, dated June 30, 2009. The comments discuss the chemical structure of Pemulen TR2, its use in emulsions, and the authors' interest in further research and collaboration.

Chemical Structure:

$$\left[\text{CH}_2 - \underset{\text{C}=\text{O}}{\underset{\text{OH}}{\text{C}}} \right]_x \left[\text{CH}_2 - \underset{\text{C}=\text{O}}{\underset{\text{OR}}{\text{C}}} \right]_y$$

R = long chain alkyl group

Discussion Thread:

Dale Kronkright said at 11:49 am on Jun 30, 2009
Reply Delete

Hi Nancie. I'm going to use the group "we" here in my comments because, like a good WIKI contributor, I want to help take responsibility for some of the work - true read/write technology! SO I'll try working on some of the following questions and comments: I think we should consider adding a chemical structure diagram of a Pemulen monomer, identifying lipophilic regions and branching structures. We should address why Pemulen is mildly acidic in water and how the use of different common alkalis alter the structure (perhaps all in similar ways? haven't thought about it a lot.) Then, as we discussed early, the gel becomes acidic over time, suggesting additional ionization. We need to speculate how this mechanism might occur and why and how ionic species might impact clearance and cleaning.

Dale Kronkright said at 11:54 am on Jun 30, 2009
Reply Delete

I realize that shameless self-promotion is normally practiced in the Twitter venue, but in the JAIC, vol. 48 (2009), pages 83 -96 I present the first part of a two-part review of both Solvent Gels for the Cleaning of Works of Art: the Residue Question and (coming later) Cleaning Painted Surfaces: Aqueous Methods. I'll be trying to infer some of the chemical structural work we need to do from information done during the writing of those reviews.

Nancie Ravenel said at 12:32 pm on Jun 30, 2009
Reply Delete

Hi Dale. It is probably an understatement to say that I'm "thrilled" that you're interested in thinking through some of these issues. And you bring up some wonderful questions. Your messages prompted me to do a quick search on Google Scholar and I note that there's an article "Thermoanalytical and microscopical investigation of the microstructure of emulsions containing polymeric emulsifier" in the Journal of Thermoanalysis and Colorimetry, Volume 94, Number 1 / October, 2008, pp.271-274. <http://resources.metapress.com/pdf-preview.axd?code=c31q621502311d44&size=largest> for a maddeningly tantalizing preview. Note that they indicate that they indicate that the authors note that these emulsifiers impart "steric stabilization". I'd bet that different common alkalis would alter the structure. I haven't yet sat down to make a Pemulen gel with ammonium hydroxide to see how that might work on our various projects, but its something that I really want to do in the near future.

What's missing/problematic [Sharing with colleagues]

- more streamlined ways of finding & sharing treatment histories/images of specific works of art & artifacts
- archives that will accept conservation records from private practices
- image copyright policies
- time
- the capacity to share large images through SG mailing lists [archive space/preservation issues]

Sharing with the public

- much of what was mentioned on the previous slide
- conservation info & images on collections databases/websites
- Wikipedia
- social media platforms

"La Source" Pendant and Necklace - The Walters Art Museum - Works of Art

art.thewalters.org/detail/5299/la-source-pendant-and-necklace/

Explore Object

"La Source" Pendant and Necklace

DESCRIPTION CONSERVATION EXHIBITIONS PROVENANCE CREDIT

DATE	DESCRIPTION	NARRATIVE
12/07/1964	Treatment	cleaned
6/13/1983	Loan Consideration	examined for loan
7/03/1984	Examination	cleaned
11/17/1987	Examination	examined for condition

DOWNLOAD IMAGE ADD TO COLLECTION

CREATOR
• René Lalique (French, 1860-1945) (Artist)

PERIOD
ca. 1902

MEDIUM
ivory, enamel, opals, gold (Gold, Silver & Jewelry)

ACCESSION NUMBER
57.941

MEASUREMENTS
3 1/8 in. (7.9 cm)

GEOGRAPHIES
• Paris, France (Place of Origin)

TAGS
french jewelry nouveau woman flowers grace amber games buddha

ADD A NEW TAG

ART THE WALTERS MUSEUM

BROWSE COLLECTION SEARCH

Works of Art About Visit Exhibitions Events Giving Store Research Press

Including the conservation history helps colleagues & contributes to public understanding

What's missing/problematic [Sharing with the public]

- access to better tools for displaying complex images & allowing the public to interact with them
- best practices for evaluating our efforts
- social media platforms are ever changing - functionality may change
- best practices for preservation



Interactive image in the Art Institute of Chicago's online scholarly catalog

How is your digital landscape different from mine?
What's missing from it?
What's problematic?



Thanks.