

HIST G8906: Craft and Science: Making Objects in the Early Modern World
Fall 2017
Monday 10:10am-2:10pm
Chandler 260

Co-Instructors:

Prof. Pamela Smith

Dr. Sophie Pitman

Dr. Tillmann Taape

Dr. Tianna Uchacz

DESCRIPTION

This course studies the materials, techniques, settings, and meanings of skilled craft and artistic practices in the early modern period (1350-1750), in order to reflect upon a series of issues, including craft knowledge and artisanal epistemology; the intersections between craft and science; and questions of historical methodology and evidence in the reconstruction of historical experience. The course will be run as a “Laboratory Seminar,” with discussions of primary and secondary materials, as well as text- and object-based research and hands-on work in a laboratory. One component of the [Making and Knowing Project](#) of the [Center for Science and Society](#), this course contributes to the collective production of a transcription, English translation, and critical edition of a late sixteenth-century manuscript in French, Ms. Fr. 640. In fall 2017, the course will focus on the cultural context, materials, and techniques of ephemeral artworks. Several entries in the manuscript aim to produce artworks that were intended to stand outside or that aimed to create the visual effect of a more permanent (and expensive) work of art. Students will begin with skillbuilding exercises in pigment making, plaster molding, and then choose a research focus from the entries in the manuscript that cover such topics as grottos, imitation rouge clair and enamels, painting on cloth, and other techniques of creating ephemeral artworks. The course will be taught this year only in fall 2017.

PREREQUISITE

All participants must complete laboratory safety training. Please see the safety training schedule for the Fall 2017 on the Morningside campus for the next available session. If you are unable to attend during these times, you can also attend safety training at the medical campus. No registration is required for safety training; you may simply show up and attend (have your Columbia ID with you). Your attendance will be recorded and stored electronically in the RASCAL system, where you will be able to print a training certificate as proof of training.

ORGANIZATION

This course will be conducted by discussion of readings and hands-on work in the laboratory. Readings will include primary sources and literature drawn from material culture studies, anthropology, history of science and technology, and art history, as well as an introduction to historical reconstruction and to BnF Ms. Fr. 640. Students will contribute to the research on Ms. Fr. 640 by finding and comparing contemporaneous primary sources and discussing their value for a better understanding of the recipes and methods described in Ms. Fr. 640. At the same time, a series of introductory lab sessions on making and materials will be conducted. The course will then turn to the reconstruction of the techniques in Ms. Fr. 640. Using a French transcription and English translation, the laboratory portion of the course will focus each year on a single set of related techniques described in the manuscript. In 2014-15, the focus was on mold making and metalworking, including sand and plaster casting. In 2015-16, the focus was on color making, including dye and paint pigments, coloring woods and metals, varnishes, and artificial gem making. In 2016-17, we examined a variety of contexts for the manuscript, including the history of Toulouse, elite collecting in the 16th century, and descriptions and recipes that have to do with “practical natural history” (such as catching and feeding of animals, silkworm cultivation, “anatomy,” taxidermy, and organic dyes made from plants), “practical perspective and optics” (including perspective construction for painters, experiments with mirrors, and observations about the production of visual effects by the application of varnishes, glass, and other materials), and medical recipes, as well as revisiting some of the recipes from previous years, for example, ruby glass, bread molding, wax manipulation, and imitation jasper. In 2017-18, the course will focus on ephemeral artworks and the culture of display in the manuscript.

Work in the laboratory this semester will include a visit by expert maker, Dr. Jo Kirby, who was in the Conservation department of the National Gallery, London for many years before she retired. She will participate in the seminar and lead demonstrations and experiments in the lab, from October 9-19.

On May 22-24, 2018 (Tuesday-Thursday), an international meeting of scholars and expert practitioners (Working Group Meeting) will be held at Columbia in order to review the progress made on the project. Students from the course will be expected to present at this meeting.

ASSIGNMENTS AND EVALUATION

Class Discussion

All students are expected to come prepared for discussion.

Discussion participation accounts for about 10% of the total grade.

Hands-on Assignments

Students will keep field notes (in written, visual, or podcast form) on their experiences and experiments in the Class Wiki, documenting their experiments in reconstruction, as well as their

methodological reflections on the uses of hands-on work and reconstruction as historical sources. They will upload their photos to the [Flickr photo repository](#).

Open lab times will be announced throughout the semester, but will generally be held afternoons. On average, students should expect to spend at least two additional hours in the lab per week.

The laboratory component of the course will be worth 30% of the grade.

Written Assignments

Students will contribute to the decipherment of the text of Ms. Fr. 640, and they will contribute annotations to the translation and critical edition of the manuscript. They will assist in maintaining and contributing to the course Wiki and Field Notes, and they will make every effort to take part in the final Working Group Meeting to be held in May 22–24, 2018.

Working in groups, students will contribute two short annotation essays (750-3000 words) to the critical edition, similar to a catalog entry for an exhibition. These essays will make use of a whole range of visual and textual sources, and will integrate the students' laboratory experiences into a written or visual presentation that makes an argument about what research (both textual and material) into the recipe revealed about process, materials, sixteenth-century culture and society, or the identity of the author. One of the most important components of this assignment is the research students undertake on the relationship of recipes in Ms. Fr. 640 to other earlier and contemporaneous recipe collections. Previous year's annotations give students a good idea of our expectations for this assignment. Because the annotations will be published in 2019 as part of the edition's critical commentary, they must be in publication-ready shape by the final due date. This is achieved by means of a series of annotation workshops towards the end of the semester. **The annotation assignment comprises 60% of the grade.**

Student research essays resulting from this semester are contained in [*Secrets of Craft and Nature in Renaissance France. A Digital Critical Edition and English Translation of BnF Ms. Fr. 640.*](#)

- [Artificial Grottos](#)
- [Painting in Oil on Taffeta II](#)
- [Stucco for Molding](#)
- [What is Azur in Ms. Fr. 640?](#)
- [What is Carton?](#)

READINGS

The following course books (only those marked **Required**, i.e., **only 3 of the books listed below**) are available at Book Culture (112th between Broadway and Amsterdam).

These provide an introduction to collecting and objects:

- **Required:** Samuel Quiccheberg, *The First Treatise on Museums. Samuel Quiccheberg's Inscriptiones 1565*, trans. Mark A. Meadow and Bruce Robertson (Getty Research Institute, 2013)
- Lorraine Daston and Katharine Park, *Wonders and the Order of Nature* (Zone, 1998)

- Horst Bredekamp, *The Lure of Antiquity and the Cult of the Machine* (1995)

These provide an introduction to the likely locale of Ms. Fr. 640's compilation:

- Robert Schneider, *Public Life in Toulouse* (Cornell, 1989).
- William Beik, *A Social and Cultural History of Early Modern France* (Cambridge, 2009)

These provide an introduction to the history of the relationship between craft and science:

- **Required:** Pamela O. Long, *Artisan Practitioners and the Rise of the New Sciences, 1400-1600* (Oregon State UP, 2011)
- Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago and London: The University of Chicago Press, 2005)

These are useful as comparison artist/artisan writings:

- **Required:** Cennino Cennini, *The Craftsman's Handbook, 'Il Libro dell'Arte'*, trans. by Daniel Thompson (New York: Dover, 1960)
- Theophilus, *The Various Arts. De Diversis Artibus*, ed. and trans. Hawthorne (Dover, 1980)
- Benvenuto Cellini, *Two Treatises*, trans. C. R. Ashbee (repr. 2006)
- Mary P. Merrifield, *Medieval and Renaissance Treatises on the Arts of Painting: Original Texts with English Translations* (Courier Dover Publications, 2012)
- Giorgio Vasari, *On Technique* (Dover, 1960)

Other works relevant to this course:

- Tim Ingold, *The Perception of the Environment: Essays in Livelihood, Dwelling and Skill* (London and New York: Routledge, 2000)
- Robert Tarule, *The Artisan of Ipswich: Craftsmanship and Community in Colonial New England* (Johns Hopkins University Press, 2004)
- Pamela H. Smith, Amy R. W. Meyers, and Harold J. Cook (eds.), *Ways of Making and Knowing* (University of Michigan Press, 2014)
- Christy Anderson, Anne Dunlop, and Pamela H. Smith, *The Matter of Art: Materials, Practices, and Cultural Logics, c. 1250-1800* (Manchester University Press, 2014).

As you do your weekly readings, please make use of the "Discussion Questions" documents. These are meant to be a place where everyone can raise and puzzle through some of the issues; we use these documents to guide and supplement class discussions. Please add any points you want to raise beneath the relevant readings, or add more general points in the section at the top. Feel free to make this a discussion space: comment or expand on the points of your colleagues.

SCHEDULE

NOTE: Class is typically held in one of two locations: the Center for Science and Society seminar room, **Fayerweather 513** OR the Making and Knowing Lab, **Chandler 260**.

Week 1 (Sept. 11): Introduction & the Making and Knowing Project

Skillbuilding: Verdigris growing

IN PREPARATION

Administrative To Dos

- Please fill out the Google Drive and Wiki Access Form
- For reference, please consult HIST G8906 GD Introduction and information on the Project Google Drive, and the Wiki Instructions Columbia on the course WikiScholars
- Once you have received confirmation, please make sure you can view the Google Drive folder and sign in to the WikiScholars (quick link which will ask for your login)

Explore [The Making and Knowing Project Website](#)

- Read the website, making sure you understand the four components of the project

Watch [The Making and Knowing Project Lab Videos](#)

Browse [the manuscript pages of BnF Ms Fr 640](#) through the BnF on Gallica

- Browse (or read!) the compiled pdfs of the Project's transcribed and translated text and refer to the "about" document that explains what these pdfs are and how they are created:
 - Please read - About consolidated pdfs
 - The diplomatic (i.e., verbatim) French transcription
 - The English translation

Required Reading

- Pamela H. Smith and The Making and Knowing Project, "Historians in the Laboratory: Reconstruction of Renaissance Art and Technology in the Making and Knowing Project," *Art History*, special issue on Art and Technology (2016)
 - Note: research included in this article was carried out by the Making and Knowing Team; students from the 2014-15 Columbia University course, "Hist G8906: Craft and Science: Making Objects in the Early Modern World;" students in the University of Amsterdam M.A. in conservation and restoration of cultural heritage, metals specialization course; and students from the V&A/RCA PhD in History of Design.
- Donna Bilak, Jenny Boulboulle, Joel Klein, and Pamela H. Smith, "The Making and Knowing Project - Reflections, Methods, and New Directions," in *New Directions in Making and Knowing*, a special issue guest edited by Smith of *West 86th: A Journal of Decorative Arts, Design History, and Material Culture*, 23.1 (2016): 35-55.

Recommended Reading

- Either watch the [introduction to the manuscript and the project](#) here (ca 1 hour), or read Pamela H. Smith, "In the Workshop of History: Making, Writing, and Meaning," *West 86th: A Journal of Decorative Arts, Design History, and Material Culture*, vol. 19 (2012): 4-31.
- If you are new to the history of science, you should read Pamela H. Smith, "Science on the Move: Recent Trends in the History of Early Modern Science," *Renaissance Quarterly*, 62 (2009): 345-375.

IN CLASS

Bring your laptop to class

- 10:10-10:35 Introductions all around. The course in brief, expectations, skills, and your contribution to the project. Come with questions!
- 10:35-11:30 Lecture on the Making and Knowing Project by P. Smith.
- 11:30-12:15 Navigating and reading BnF Ms. Fr. 640.
- 12:15-12:40 Break
- 12:40-1:15 Discussion of Home Culinary Reconstruction Assignment (division into groups).

Due Monday, September 18. And any further questions
1:15–2:00 Safety training (Maisha Rahman) and introduction to MSDS (search for “verdigris,” copper, vinegar on [ChemWatch Safety Data Sheets \(SDS\) - Online Search](#) (must be connected to Columbia Network)
Be sure to take home your copper, jar, and string

FOLLOW UP

Review Lab Procedure Reminders

Use this information for making/growing verdigris. Be sure you have your copper, a jar, string/twine. Start your verdigris growing immediately. Bring the result to class (the copper and growths in a ziplock bag) **in the week of October 9**.

Required Reading/Research on verdigris growing:

- look up “verdigris” in
 - the pigment glossary and in linked websites listed in pigment resources, esp.:
 - the COLOUR ConTEXT database
 - Technical Art History Website, University of Delaware
 - [CAMEO: Conservation & Art Materials Encyclopedia Online](#) (explore, and check “Materials database”)
- Chemwatch issues to note, to be discussed in class next week: specific hazards, PPE necessary, safe disposal

Week 2 (September 18): Reconstruction

Skillbuilding: Historical culinary reconstruction

IN PREPARATION

Start on the Historical Culinary Recipe Reconstruction (HCR) right away, by reading the HCR assignment carefully, exploring and using the websites listed on the assignment sheet to search for comparable recipes in contemporaneous sources, and doing the following reading/watching **BEFORE** starting your reconstruction:

Required Reading and Watching:

- Ken Albala, “Cooking as Research Methodology: Experiments in Renaissance Cuisine,” *Renaissance Food from Rabelais to Shakespeare: Culinary Readings and Culinary Histories*, ed. Joan Fitzpatrick (Aldershot, UK: Ashgate, 2010), pp. 73–88.
- See also [Ken Albala’s blog](#)
- [Syrup of Violets and Science](#) video
- Read over the HCR resource guide and the [CU Library Tool](#) compiled by Meredith Levin specially for this course

Recommended reading

- For an example of an exemplary reconstruction experiment, see Maartje Stols-Witlox, “Sizing layers for oil painting in western European sources (1500-1900): historical recipes and reconstructions,” *Proceedings of the Second ATSR Symposium* (2008), pp. 148-163.
- Ad Stijnman, “Style and technique are inseparable: art technological sources and reconstructions,” *Art of the Past. Sources and Reconstructions. The proceedings of the First*

Symposium of the Art Technological Source Research Study Group, ed. by Mark Clarke, Joyce H. Townsend, and Ad Stijnman (Amsterdam: Archetype, 2005): 1-8.

Contribute to this week's Discussion Questions document

Execute your HCR

Prepare a powerpoint presentation of your HCR, 10 minutes max, and **practice delivering your presentation** so that we can keep to time in class on Monday.

IN CLASS

Bring the material results of your HCR. We will consume them, if safe!

- 10:10–11:30 Student presentations (and consumption of the results),
FA17 reconstruction template construction
- Recommended reading above is a useful reference for this exercise
- 11:30–12:15 Introduction to field and lab notes with Dr. Joseph Ulichny, Chemistry, and Dr. Brian Boyd, Anthropology.
- 12:40–12:50 Verdigris/Chemwatch follow-up discussion
- 12:50–1:55 Wiki practice and profiles; upload photos to Flickr; link to Wiki, upload ppt to Wiki as field notes for HCR exercise, etc.
- 1:55–2:00 distribution of the sourdough starter

FOLLOW UP

Familiarize yourself with the Bread Molding assignment. Start feeding your starter and baking (or learning to bake) bread this week. You will need to research the ingredients and process of making sixteenth-century bread, so keep detailed field notes and take copious pictures as you learn to bake bread. **Bread molds due Week 4, October 2, in class.**

Week 3 (Sept. 25): Ephemeral Art and Early Modern Multimedia

Skillbuilding: Rare book research

IN PREPARATION

Required Reading

- Robert Schneider, *Public Life in Toulouse* (Cornell, 1989), ch 2, pp. 45-89, esp. pp. 74-81 on the entry of Charles IX.
- Nevet Dolev, "Renaissance Art of the Here-and-Now: Some Questions Raised by Ephemeral Art." *Arte Lombarda*, no. 110/111 (3-4) (1994): 43–48.
- Watch Dr Helen Smith, "[Consuming Paper](#)," a talk given at the conference "Ephemerality and Durability in Early-Modern Visual and Material Culture," University of Cambridge (24-25 May 2013)
- Tuohy, Thomas. "The Ephemera of Magnificence. Sports. Feats of Arms. Theatre. Triumphal Entries. Banquets." In *Herculean Ferrara: Ercole d'Este, 1471-1505, and the Invention of a Ducal Capital*. New York: Cambridge University Press, 1996.
- Bergeron, David M. "Body: Men and Machines," in *English Civic Pageantry, 1558-1642*. Tempe, Ariz: Arizona Center for Medieval and Renaissance Studies, 2003. pp. 238–62. See also The Arches of Triumph (1604) which are referenced throughout the chapter.

- Visentin, Hélène, Nicolas Russell, and Victoria University (Toronto, Ont.), eds. *French Ceremonial Entries in the Sixteenth Century: Event, Image, Text*. Essays and Studies 11. Toronto: Centre for Reformation and Renaissance Studies, ill, 2007. Read the introduction: “The multilayered production of meaning in sixteenth-century French ceremonial entries.”

Contribute to this week’s Discussion Questions document

Find and review the MSDS sheets for the materials “wax” and “sulfur” in Chemwatch. Make notes of any necessary PPE, health/safety precautions, and waste disposal concerns

IN CLASS

10:10–10:20 fire extinguisher training outside of Havemeyer with Jon Aponte (Associate Fire Safety Officer, Environmental Health & Safety)

10:20–12:00 Discussion of readings

12:00–12:15 MSDS discussion re: bread molding

12:15–12:45 Break

1:00–2:00 Visit to the Avery Library: We shall examine several books in Avery library. In preparation for this class, check out the [CU Library Tool](#) (available on the wiki) that Meredith Levin, Western European Humanities Librarian, put together for us on course topics. She will be present at the session and can answer questions.

FOLLOW UP

Bread making!

Week 4 (October 2): Ephemeral Art in BnF Ms Fr 640

Skillbuilding: Bread molding - an ephemeral and intermediary process

IN PREPARATION

Required reading

Annotations:

- Tianhe Lou and Marilyn Bowen, “Oil Painting on Taffeta”, Fall 2015
- Tianhe Lou and Marilyn Bowen, “Oil on Taffeta”, Fall 2015
- Yuan Yi, “Damasked Cloth” Annotation, Fall 2015

Search the manuscript (use PDFs) for examples of entries that connect to the theme and materials of ephemeral art. **Make a list** of these entries to share and discuss.

Reread the Bread Molding Assignment.

Find the recipes for molding in bread in Ms. Fr. 640, and, making use of the starter you were given the week before last, **perform a reconstruction of this recipe**. You will need to research the ingredients and process of making sixteenth-century bread, so keep detailed field notes and take copious pictures as you perform the reconstruction. Think about the aims of the bread-molding recipes, and the significance and properties of the quotidian material, bread, as you work. It may be helpful to you read previous students’ field notes on this process.

Read:

- Rozemarijn Landsman, Jonah Rowen, “Sulfur and Additives,” Annotation, Fall 2014.
- Emma Le Pouésard, “Pain, Ostie, Rostie: Bread in Early Modern Europe,” Annotation, Fall 2016.

Contribute to this week’s Discussion Questions document

Prepare your bread molds and bring them to class, ready for casting in wax and sulfur. Be prepared to give an account of your experience of interpreting and reconstructing the Ms. Fr. 640 recipes.

IN CLASS

- 10:10–10:50 bread molding in Chandler 260
- 10:50–11:30 field note review and discussion of readings, annotation topics—introducing ephemeral art in BnF Ms Fr 640 (grottos, stucco,
- 11:30–12:00 break and walk to RBML
- 12:00–1:00 We shall examine several books in the Rare Book room in Butler library.
- 1:15–2:00 breaking bread molds

FOLLOW UP

If you need additional time to finish removing your casts from the bread molds, schedule a time to return to the lab.

Week 5 (October 9): Skillbuilding with Expert Maker Jo Kirby I

Skillbuilding: pigment making & use (lakes, azurite, verdigris)

IN PREPARATION

Required reading

- Skim entire Cennino Cennini, *The Craftsman’s Handbook, Il Libro dell’Arte*, trans. by Daniel Thompson (New York: Dover, 1960)
- Vasari, *Lives of the Artists* (Paperback), Translators: Julia Conway Bondanella, Peter Bondanella (Oxford University Press, USA, 2008), lives of Jacopo della Quercia, Jacopo da Pontormo. See also the first four paragraphs of the Life of Battista Franco
- Vitruvius: read the table of contents, and Book II, chs 7, 8, and other chapters as they interest you.
- Read Four questions to consider in working with objects and materials, and begin thinking about the materials you will use over the next few weeks, and the object(s) you might reconstruct for your annotation.
- For Tuesday, October 10, Read Chang, Clemens, Azur Enamels (with comments)
 - Review the latest translation of 11r_1 “Painting esmail d’azure in oil”

Contribute to the Discussion Questions document

Familiarize yourself with lakes and lake making

- Lake: an organic pigment prepared by precipitation of a dye on a powdered, inorganic substrate
- Please see Lakes in Student Files, particularly:
 - Natural Colorants Chapter 5 - Recipes (background and recipes we will be using)

- Naomi's powerpoint of the procedure (also see the longer presentation of other lakes which has more information about the ingredients and the process)
- Assignment notes:
 - Recipe and procedure (and timing information)
 - Calculations (breakdown of materials needed, quantities)

Recommended Reading

- Natural Colorants Chapter 3 - Chemistry (chemistry of the lake process)

IN CLASS

Meet in Fayerweather 513

10:10–10:40 Presentation by Diane Bodart
 10:40–11:45 Presentation by Jo Kirby; discussion of the readings
 11:45–12:15 Break
 12:15–2:00 Red lake making in the lab

****SPECIAL DINNER: Monday, Oct. 9, 6 pm**

****SPECIAL SKILLBUILDING SESSION: Tuesday, Oct. 10, 6–10 pm**

- Rinsing red lake pigments
- Grinding azurite
- [Watch this video](#) on making ultramarine pigment from lapis lazuli
- Skim this book excerpt on blue pigments, reading the section on azurite

****SPECIAL SKILLBUILDING SESSION: Friday, Oct. 13, 9 am–12 pm**

- Painting out red lakes, azurite, and verdigris

FOLLOW UP

Note: Next week, we will discuss your proposed annotations, and you will have a chance to profit from Jo's preliminary feedback, so please start thinking about annotation ideas. Begin thinking about the historical question your annotation will answer, begin compiling a materials list for experiments, and start developing a protocol for experimentation on your recipe(s). Begin to identify the recipes that your group will annotate in BnF Ms. Fr. 640.

Week 6 (October 16): Skillbuilding with Expert Maker Jo Kirby II

Skillbuilding: stucco, papier mâché, glues, and grottos

Annotations: preliminary ideas

IN PREPARATION

Required readings

- *Vasari on Technique* - "Of Architecture, ch. 5, "Grottos and Fountains," pp. 87-91; "Of Sculpture," ch. VI, "Modelled and Stamped Plasterwork," pp. 170-172
- Read fol. 29r in the Manuscript Pages folder in the BnF Ms. Fr. 640 folder in the Google Drive. Look at the color image of the page, the diplomatic transcription (tc) and the English translation

(tl). We will be reconstructing this recipe. Please write out a protocol that lays out what you will do for this reconstruction.

- Search the manuscript for other recipes for stucco and compare them to fol. 29r..
- Archival research by Colin Debuiche, Gerda Henkel Making and Knowing Postdoctoral Scholar, on Charles IX's entry into Toulouse.
- Durkin, "Molding Animals and Fruits in Sugar," Annotation, Spring 2015

Contribute to the Discussion Questions document

IN CLASS

Meet in Fayerweather 513

- 10:10–11:00 Presentation by Jo Kirby; discussion of the readings - schedule drop-in sessions for Thursday
- 11:00–11:20 Discussion of the readings - schedule drop-in sessions for Thursday
- 11:20–11:45 Discuss possible annotations
- 11:45–12:15 Break
- 12:15–2:00 Skillbuilding: stucco. Have protocols ready.

****SPECIAL VISIT to THE MET with JO KIRBY: Tuesday, Oct. 17, 10 am**

- Meet in front of the Met at 10 am
- Visit to the exhibition "[Relative Values: The Cost of Art in the Northern Renaissance](#)"

****SPECIAL SKILLBUILDING SESSION: Tuesday, Oct. 17, 6–10 pm**

- Stucco

****SPECIAL SKILLBUILDING SESSION: Wednesday, Oct. 18, 9 am–12 pm**

- Making red lakes from dyed cloth (16th-century method)

****SPECIAL DROP-IN ANNOTATION CONSULTATION with JO KIRBY: Thursday, Oct. 19, 9 am–1 pm**

Week 7 (October 23): Recipes, Genres, and Research Methodologies

Annotations: continue planning, assembling preliminary bibliography for your annotation

Field notes: due date for **all skill building field notes to be completed** is **October 25 at 5pm**

IN PREPARATION

Required readings

- Watch the powerpoint by Erma Hermens, one of our expert makers, from Spring 2016 (with information on books of secrets, ephemeral art, reflections on Ms. Fr. 640 recipes, and more). Browse all powerpoints from the Working Group Meetings.

- Francisco Alonso-Almeida, “Genre conventions in English recipes, 1600-1800,” *Reading and Writing Recipe Books, 1550-1800*, Michelle DiMeo and Sara Pennell (Manchester: Manchester University Press, 2013), pp. 68-90.
- Pamela Smith, “What is a Secret? Secrets and Craft Knowledge in Early Modern Europe,” *Secrets and Knowledge in Medicine and Science, 1500-1800*, ed. by Elaine Leong and Alisha Rankin (Ashgate, 2011): 47-66.
- Sara Pennell “Perfecting Practice? Women, Manuscript Recipes and Knowledge in Early Modern England,” ed. by Victoria E. Burke and Jonathan Gibson, *Early Modern Women's Manuscript Writing: Selected Papers from the Trinity/Trent Colloquium* (Aldershot: Ashgate, 2008)
- Elaine Leong, “Making Medicines in the Early Modern Household,” *Bulletin of the History of Medicine* 82(1) (2008): 145-168
- Rankin, Alisha, “How to Cure the Golden Vein: Medical Remedies As Wissenschaft in Early Modern Germany,” in *Ways of Making and Knowing*. Edited by Pamela H Smith, Harold Cook and Amy Meyers (Ann Arbor: University of Michigan Press, 2014)
- Lawrence Principe, “Chymical Exotica in the Seventeenth Century, or, How to Make the Bologna Stone” *Ambix* 63 (2016): 118-44.

Recommended readings

- William Eamon and Françoise Paheau, “The Accademia Segreta of Girolamo Rucelli: A Sixteenth-Century Italian Scientific Society,” *Isis* 75, no.2 (1984): 327-42.
- William Eamon, “How to Read a Book of Secrets,” ch. 1, *Secrets and Knowledge in Medicine and Science, 1500-1800*, ed. by Elaine Leong and Alisha Rankin (Ashgate, 2011): 23-46
- *Ambix*, 63, 2016 - Issue 2: From the Library to the Laboratory and Back Again: Experiment as a Tool for the History of Science.

Contribute to the Discussion Questions document

IN CLASS

Meet in Fayerweather 513.

10:10–10:30 Wrap-up discussion on Skill-building exercises

10:30–12:30 Presentation by Michelle DiMeo; discussion of the readings

12:30–1:00 Break

1:00–2:00 Very short reports on your annotation research progress, then further research, and catch up on field notes.

Introduce students to

- Student Files and Reference folders
- BnF Folders: Glossaries, Dictionaries and Reference
- Prior year annotations in BnF folder
- Working Group Meeting Presentations

FOLLOW UP

Annotations: continue planning, begin to firm your ideas for a reconstruction

Week 8 (October 30): Collecting, Collections, Collectors

Annotations: continue planning, begin to firm your ideas for a reconstruction

IN PREPARATION

Required reading

- Samuel Quiccheberg, *The First Treatise on Museums. Samuel Quiccheberg's Inscriptiones 1565*, trans. Mark A. Meadow and Bruce Robertson (Getty Research Institute, 2013). In conjunction with reading this, **search the text of Ms. Fr. 640** (French transcription or English translation PDFs). Can you identify any curiosities or wonders in Fr. 640? How does the author-practitioner use “curious” (*curieuse* and *curieusement*)? Would the objects that Fr. 640’s recipes aim to produce fit into Quiccheberg’s amphitheater?
- Martin Kemp, “‘Wrought by No Artist’s Hand’: The Natural, the Artificial, the Exotic, and the Scientific in Some Artifacts from the Renaissance,” *Reframing the Renaissance: Visual Culture in Europe and Latin America 1450–1650*, ed. Claire Farago (New Haven and London: Yale University Press, 1995), 177–96.
- Isabella Lores Chavez and Charles Kang, “Imitating Raw Nature,” Fall 2016.

Recommended reading

- Neil Kenny, *The Palace of Secrets: Béroalde de Verville and Renaissance conceptions of knowledge* (Oxford: Clarendon, 1991), pp. 1-136, 156-57, 208-251.
- Neil Kenny, *The Uses of Curiosity in Early Modern France and Germany* (Oxford, 2004), ebook through Clio (Oxford Scholarship Online), Introduction: Ebook pdf version: pp. 1-30, Part 3: Ebook pdf version: pp. 1-33, 46-51, 62-79, 132-39.
- Pamela H. Smith, “Collecting Nature and Art: Artisans and Knowledge in the Kunstkammer,” in *Engaging With Nature: Essays on the Natural World in Medieval and Early Modern Europe*, ed. Barbara Hannawalt and Lisa Kiser (University of Notre Dame Press, 2008), 115-136.
- Paula Findlen, “Anatomy Theaters, Botanical Gardens, and Natural History Collections,” ch. 12 *The Cambridge History of Science*, eds. Katharine Park, Lorraine Daston, pp. 272-289. Browse other chapters in this immensely useful reference work.
- Kathryn Kremnitzer and Siddhartha Shah, “Imitation Gemstones, Ruby, Emerald,” Annotation, Fall 2015.
- Alexandra Chessa, “Imitation Coral,” Annotation, Spring 2015.
- Lorraine Daston and Katharine Park, *Wonders and the Order of Nature* (Zone, 1998), chs. 1, 2, & 4. Ebook available on Clio.
- Horst Bredekamp, *The Lure of Antiquity and the Cult of the Machine* (1995), chs. “The Historical Chain” and “The Playfulness of Natural History,” 11–36, 63–80.
- Giambattista della Porta (1538-1615), *Natural Magic*, the preface.

Contribute to the Discussion Questions document

Make a page in the Field Notes Folder on the Wiki entitled “Annotation Plans.” Eventually this page should include the following elements, but for class on Monday, please just do as much of the following list as possible (you will not be expected to have a safety protocol at this point)

- Names of your group members
- Describe your annotation plans

- List the recipes from MS Fr. 640 (and any other source) that you have identified so far (include full recipes if practical)
- Lay out a schematic plan for the historical, object-based, and hands-on research that will shed light on these recipes.
- List the materials you expect to need (are they in the lab inventory? See the Materials and Sourcing Reminders) where you will source them, and safety considerations.

IN CLASS

Meet in Fayerweather 513

- 10:10–11:30 Discussion of the readings
 11:30–11:50 Intro to using Artstor and online image resources
 11:50–12:10 Intro to writing your annotation in Google docs
 12:10–12:30 Break
 12:30–2:00 Discussion of annotations, then move to lab

FOLLOW UP

1. In conjunction with reading Quiccheberg, **search the text of Ms. Fr. 640**. Can you identify any curiosities or wonders in Fr. 640? How does the author-practitioner use “curious” (*curieuse* and *curieusement*)? Would the objects that Fr. 640’s recipes aim to produce fit into Quiccheberg’s amphitheater?
2. **Consider** your annotation plans in light of our discussion of lab safety. Will you require a safety protocol? If so, begin to formulate one based on the Safety and Workflow template. Eventually, your document should describe your workflow in detail, including what safety measures you will need to take. Upload or create a working draft into the folder labelled FA17 - Safety Protocols.

Note: The week after next, we will discuss your proposed annotations in class. Use the break to consolidate your ideas, research notes, and reconstruction plans into a coherent format on the Wiki. You will give a brief presentation of your plans at the next class.

Week 9 (November 6) — NO CLASS — Election Day Break

Week 10 (November 13): Embodied Knowledge

Annotations: detailed plans due in class; safety protocols drafted

IN PREPARATION

Required reading

- Raymond Tallis, *The Hand: A Philosophical Inquiry into Human Being*, (Edinburgh: Edinburgh University Press, 2003), Ch. 1.
- Julian Thomas, “Phenomenology and Material Culture,” in *Handbook of Material Culture*, ed. Christopher Tilley et al. (Sage 2006), 43-59; ONLY READ 43-44, 47-48, 53-54, 56-57.
- Ann-Sophie Lehmann, “Wedging, Throwing, Dipping and Dragging – How Motions, Tools and Materials Make Art,” *Folded Stones*, eds. Barbara Baert and Trees de Mits (Institute for Practice-based Research in the Arts: Ghent 2009), pp. 41-60.

- Emma Le Pouésard, “Bread as Mediating Material,” Annotation, Fall 2016.

Recommended reading

- Tim Ingold, *The Perception of the Environment: Essays in Livelihood, Dwelling and Skill*, (London and New York: Routledge, 2000), Ch. 18-19 (pp. 339-361).
- Erin O’Connor, “Embodied knowledge in glassblowing: the experience of meaning and the struggle towards proficiency,” *Sociological Review* (2007): 126-141.

Contribute to the Discussion Questions document

IN CLASS

Meet in Fayerweather 513

10:10–11:10 Discussion of readings (don’t forget Quiccheberg--Ms. Fr 640 assignment above)
 11:10–11:30 Reports on annotation plans - see instructions above in Follow Up
 11:30--2:00 Move to lab

FOLLOW UP

Finalize safety protocols by Friday, November 17

Week 11 (November 20): Art and Culture in Early Modern France

Annotations: all safety protocols finalized; lab work & research

IN PREPARATION

Required reading

- Robert Schneider, *Public Life in Toulouse* (Cornell, 1989), pp. 12-29.
- Wardropper, Ian. “The Flowering of the French Renaissance.” Vol. 60, no. 1. *The Metropolitan Museum of Art Bulletin*. New York: Metropolitan Museum of Art, 2004.
- Ray Carlson and Jordan Katz, “Molded Roses,” Annotation Fall 2014

Contribute to the Discussion Questions document

IN CLASS

Meet in Fayerweather 513

10:10–11:15 Discussion of readings
 11:15–2:00 Move to lab for annotation work

Week 12 (November 27): Craft, Science, and Art

Annotations: lab work & research

IN PREPARATION

Required readings

- Pamela O. Long, *Artisan Practitioners and the Rise of the New Sciences, 1400-1600* (Oregon State UP, 2011), Intro-ch. 2 (p. 1 - 62)

Contribute to the Discussion Questions document

IN CLASS

Meet in Fayerweather 513

10:10–11:15 Discussion of readings

11:15–2:00 Move to lab for annotation work

FOLLOW UP

FIRST DRAFT OF ANNOTATIONS DUE FRIDAY DEC 1 BY MIDNIGHT

Week 13 (December 4): Annotation Workshop I

Annotations: lab work & research

IN PREPARATION

All class members read all annotations to be prepared to discuss them in class and offer suggestions. **Contribute** questions, ideas, suggested sources for your colleagues' annotations.

IN CLASS

Meet in Fayerweather 513

10:10–11:15 Discussion of annotations

11:15–2:00 Move to lab for annotation work

FOLLOW UP

Work on annotations - lab and writing

Week 14 (December 11): Annotation Work

Annotations: lab work & research

IN PREPARATION

IN CLASS

Meet in the lab to continue lab work

FOLLOW UP

SECOND DRAFT OF ANNOTATIONS DUE FRIDAY DEC 15 BY MIDNIGHT

Week 15 (December 18): Annotation Workshop II

Annotations: lab work & research

IN PREPARATION

All class members read all annotations to be prepared to discuss them in class and offer suggestions. **Contribute** questions, ideas, suggested sources for your colleagues' annotations.

IN CLASS - MEET IN FAYERWEATHER 513

10:10–11:15 Discussion of annotations

11:15–2:00 Move to lab for annotation work, results inventorying, etc.

May 22–24, 2018 — Working Group Meeting

Attendance required, if possible