

University of Pennsylvania  
Graduate Program in Historic Preservation  
HPSV 740-301 *Conservation Seminar: Architectural Surface Finishes*  
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**Spring 2021**  
**Conservation Lab, 051 Duhring Wing**

### **Course Description**

Architectural surface finishes are among the most ephemeral of all materials in the built environment. Enduring harsh conditions and subject to frequent change, they are intrinsically vulnerable and, as a result, are often replaced or disappear entirely. Yet, despite their changeability, finishes are extraordinarily important. They offer insight into architectural alterations and conditions. They imbue buildings with meaning, influence the perception and expression of design, and the effect color and light. Finishes ornament, imitate, and fool the eye. They function as disinfectants, insecticides, and water-proofing. They are reflections of economies, trade, and natural resources. They demonstrate people's mythologies, beliefs, aesthetics, and aspirations. Because architectural surface finishes encompass a wide range of material types and possibilities for conservation intervention, approaches to their treatment vary widely. On the one hand, in a departure from pure conservation convention, they are commonly replicated. On the other hand, treatments may rise to the same level as that of murals or painted sculpture. These differences in levels of approach call on conservation principles and charters for guidance, while sometimes stirring debate and igniting controversies on questions of consistency, original fabric, and authenticity.

Over the course of the semester by way of lectures, lab exercises, demonstrations and a case study, students will gain understanding of the history, materials, craft and technology of which architectural finishes in the west have been most commonly made, in addition to sources for researching them, the types and causes of deterioration and treatment. Lectures on history and technology by the instructor will be complemented by guest lectures. Students will learn about primary sources materials at the Special Collections at Fisher Library from Frank Matero. Architectural conservators Kelsey Britt (HSPV 2018) and Chris Mills will lecture and demonstrate hand ground linseed oil paints. Architect Marty Shore, Office of the Architect of the US Capitol, where extensive finishes analysis has been conducted over the years, will discuss the perspective of the architect and client. Catherine Matsen, Conservation Scientist from Winterthur Museum, will host the class for a discussion of advanced methods of finishes analysis at the Analytical Labs of Winterthur Museum.

In-class exercises and assignments will help build skills and knowledge of historic finishes. Six short assignments of one to two pages each will precede a final case study assignment at Founders Hall (designed by Thomas U. Walter and completed in 1847) at Girard College in the Fairmount area of Philadelphia. Working as a group, students will report on the microscopic analysis of finishes. They will address paint technology and style of the period; previous finishes analyses; analysis of finishes of similar buildings of the period; and changes to the building. Students will present their findings to the "client" and others. Discussions and assigned reporting on readings will occur at the beginning of many of the classes.

Prerequisites: Conservation Science HSPV 555. Exceptions will be considered and granted as possible by permit from the department.

*Cassie Myers is a conservator of mural paintings and architectural finishes in private practice in Philadelphia. In addition to conservation treatment commissions, she conducts finishes analyses and advises clients on conservation planning and preservation policy development. First educated as a fine arts conservator in the United States and in Italy by way of fellowship sponsored study and research (L'Istituto Centrale per il Restauro and ICCROM in Rome), she worked in museums and in the field before returning to study Historic Preservation and Architectural Conservation (HSPV, Penn 1992). She has held positions in the private sector, federal government, and at research institutions.*

The course will be organized in four sections as follows: 1) History, Technology and Chemistry of Paint and Finishes; 2) Analysis of Finishes; 3) Treatment Additional to Analysis; 4) Case Study.

There will be guest lecturers throughout the seminar. The case study will allow for the opportunity to apply knowledge and skills.

**PART 1: *History, Technology, Chemistry, Performance, Research Methods***

Date	Topic	Lecturer	Location
1/19/22	Course overview. Color. History. Function of Finishes. Regionality. Research methods.	CSM	Lab
1/26/22	Technology, Chemistry, Performance Deterioration.	CSM	Lab
2/2/22	Documentary Research. Using Primary Sources	F Matero	Archives
2/9/22	Guest lecturers on making 19 <sup>th</sup> C. oil paints	Britt and Mills	Lab
2/16/22	Hands on lab: making decorative finishes	CSM	Lab

**PART 2: *Analysis of Finishes***

Date	Topic	Lecturer	Location
2/23/22	Optical Microscopy: Review. Types of microscopes. Sample types. Applications. Sample Preparation. PLM. Particle Analysis. Photomicrography	CSM	Lab
3/2/22	Instrumental Analysis	C. Matsen	Lab
3/9/22	<b>SPRING BREAK</b>		
3/16/22	Interpreting stratigraphies. Color Theory. Color Matching	CSM	

**PART 3: *Deterioration, Diagnostics and Treatment***

Date	Topic	Lecturer	Location
3/23/22	Case Study Finishes Analysis. US Capitol	M. Shore	Lab
3/30/22	Causes of deterioration. Treatment Additional to Analysis. Deterioration. Causes of deterioration. Exposing original finishes. Stabilizing Substrates. Cleaning.	CSM	Lab

**PART 4: *Case Study***

Date	Topic	Lecturer	Location
4/6/22	Case Study Site Visit 1		Site
4/13/22	Plain and Ornamental Plaster- Materials and Methods	CSM	Lab
4/20/22	Case Study Site Visit 2		Site
4/27/22	Student Presentations		Lecture Room

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### Office Hours

Wednesdays 12pm or by request. Telephone and Zoom appointments are also available.

**Code of Academic Integrity** [http://www.upenn.edu/academicintegrity/ai\\_codeofacademicintegrity.html](http://www.upenn.edu/academicintegrity/ai_codeofacademicintegrity.html)

### Grading

Attendance, engagement, participation, and collaboration	20%
Short reports	30%
Quiz:	10%
Exercizes	25%
Final report and presentation	15%

Auditors will be expected to attend all classes.

### Provisional Bibliography (will be modified)

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