GSAPP 2026 SUMMER WORKSHOP

Title: Exploring Metal Casting and Collaborative Experimental Preservation

Dates: Tuesday May 25 to Friday June 5

Lead Faculty: Prof. Jorge Otero-Pailos, Prof. Kate Allen

Lectures by: Prof Richard Pieper, Dave Matson (artist)

Staff: Mika Tal, Manager, GSAPP Preservation Technology Lab

Collaborators:

Gardenship Foundry, Jersey City, NJ
UAP Foundry, Newberg, NY
Covax Atelier Ironsmith, NJ
Carftsman Avenue Welding: Brooklyn, NY
Evergreene Architectural Arts, Brooklyn, NY
Compleat Sculpture, Manhattan, NY
Central Park Conservancy, Manhattan, NY

Description:

Explore metal casting and collaborative craftsmanship through the lens of experimental preservation in this two-week summer workshop. This immersive program blends hands-on experiences with theoretical knowledge and creativity, offering participants a unique approach to the design, technology and craft involved in the production and preservation of architectural metalwork. The workshop will include visits to buildings with significant metalwork and metal manufacturing facilities in the New York area.

Students learn the entire process of designing, prototyping, crafting, restoring and recreating architectural metal elements. The workshop involves a blend of lectures about the material science of ferrous and non-ferrous metals, hands-on production of architectural metal elements at GSAPP, local foundries and metalsmithing workshops, as well as study trips to NY area sites such as the historic zinc mines of Franklin NJ—once the largest in the world.

In the GSAPP Preservation Technology Lab, students learn two ways to replicate existing architectural metal elements: either by taking exact “negative” rubber molds or by interpreting the elements in free-hand sculpted clay copies. They learn how to make multiples of these originals by creating molds with various molding materials including rubber, polyurethane, wax, sand slip-casting and ceramic shell lost-wax methods.

Students work with artisans to learn the craft of melting metal and pouring it into molds. They also visit adaptive reuse projects under construction, and have discussions with metal artists.

Week 1: Crafting Building Fragments (May 25 – May 29)

In the first week, participants will immerse themselves in the art of metal casting and preservation techniques at the GSAPP Preservation Technology Lab. Guided by experienced artisans and preservation experts, students will learn to create wooden

patterns, molding techniques in rubber and wax to replicate metal building fragments. Through meticulous craftsmanship, each participant will contribute to the creation of these fragments, forming a collaborative process akin to constructing a "metal quilt."

Week 2: Exploring Metal Casting and Preservation Sites (June 1 – June 5)

The second week takes participants on a journey to historic sites and industry partners in the New York area, offering firsthand experience in metal casting and preservation practices. We'll spend a day at Gardenship Foundry in Jersey City, NJ, where participants will have the opportunity to pour molten iron into the molds prepared at Columbia. Participants will gain insight into ferrous metal casting techniques.

Next, a day at UAP Foundry in Newberg, NY, will provide exposure to the ceramic shell process and lost wax method of casting, exploring nonferrous metal casting methods and expanding participants' understanding of preservation practices.

To conclude the week, participants will learn the art of applying hot and cold patinas to bronze, adding depth and character to their creations. Here, the collaborative process comes full circle as participants witness the transformation of individual fragments into a cohesive architectural grille.

Culminating Project: The Metal Quilt

Inspired by the concept of building fragments, participants will collectively fabricate and assemble the architectural grille using the fragments created throughout the workshop. This collaborative endeavor symbolizes the intersection of individual creativity and collective effort in preserving architectural heritage. Upon completion, the grille will be patinated and sent back to Columbia, where it will be hung on display as a tangible representation of the workshop's collaborative spirit.

This enriching and transformative experience is meant to introduce students to the art, science and technology of metal craftsmanship, heritage conservation, and collaborative experimental preservation practices.

Columbia Summer Workshop- 5/26- 6/4

WEEK ONE

May 26th- Tuesday

MORNING:

Welcome and Introduction to the workshop

- Glossary of terms

Lecture: Ferrous Metals – Cast Iron, Steel and Wrought Iron (zoom Kate)

Dave Matson lecture: Anatomy of Iron pour / and bronze pour

AFTERNOON:

Begin the Rosette Lab (oil clay)

May 27th Wednesday

MORNING :

Lecture: Kate Allen: Non-Ferrous Metals – Pattern Making, Castings, Alloys, and Finishing.

Finish with Rosette Lab and pour silicon molds

AFTERNOON:

Silicone mold exercise

May 28th Thursday

MORNING:

Lecture - Compleat Sculptor Visit – W 19th st

AFTERNOON:

Wax

Complete any remaining Molds and Patterns

(Molds to be shipped to Gardenship Foundry to be poured)

May 29th Friday

CRAFTSMAN AVENUE WELDING WORKSHOP – Brooklyn

(Max Group Size 12 people)

<u>WEEK TWO</u> – June 1st – June 5th

June 1st Monday

MORNING:

Lecture: Richard Pieper: Ferrous Metals – Cast Iron, Steel and Wrought Iron

AFTERNOON:

Central Park Conservancy

June 2nd Tuesday

MORNING:

Lecture: Jorge Otero-Pailos: sculpting and welding metal sculptures
AFTERNOON: – 1:00pm -4:00pm
Covax Atelier Metalsmith
242 Getty Ave, Clifton, NJ 07011
https://www.covax-design.com/

June 3rd Wednesday

MORNING:
Lecture: Kate Allen: Cast Metal Documentation, Restoration and Repairs-
AFTERNOON:
Welding exercise at GSAPP

June 4th Thursday

DAY TRIP:
Demonstrations of Bronze pours.
UAP FOUNDRY: NEWBERG, NY DAY - Car
https://www.uapcompany.com

June 5th Friday

DAY TRIP:
Iron Pour, Hands-on Exercice.
GARDENSHIP FOUNDRY
180 Morgan St C-101, Jersey City, NJ 07302