

2025 HANDS-ON RESTORATION WORKSHOPS:



Wednesday, May
28, 2025 -
Thursday, May
29, 2025
OMAHA, NE

1. Terra Cotta, Stone & Historic Concrete Repair
- 2a. Historic Repointing
- 2b. Structural Strengthening by Injection Grouting and Carbon Fiber Cement Matrix Plastering

Wednesday, May 28, 2025 - Thursday, May 29, 2025 (In-Person)

9am – 4pm CDT each day

Location:

Metropolitan Community College - Fort Omaha Campus

5300 North 30th Street, Omaha, NE 68111

Center for Advanced and Emerging Technology (CAET) - Building 24 Room 101

Campus Entrance at 32nd and Sorensen Parkway

These two full-day programs are designed to provide owners, architects, engineers, contractors and conservators with a detailed, practical understanding of repair systems and mortars and methods for proper application. Through a combination of presentations, demonstrations and exercises, participants will learn the techniques and approaches needed to properly complete masonry repair and repointing projects. Each course qualifies for 7 hours of Continuing Education credit (self-reporting).

TOTAL PARTICIPANTS WILL BE LIMITED SO REGISTER QUICKLY - THIS EVENT WILL SELL OUT!

May 28: Terra Cotta, Stone & Historic Concrete Repairs

MATERIALS PERFORMANCE

This workshop explains the significance of each of the various materials properties for stone, concrete and masonry repair materials. Through examples and case studies, participants are then provided with an understanding of how to approach material selection.

COLOR AND APPEARANCE

The best esthetic results rely on a combination of properly matched materials and suitable application techniques. The basics of color science, and how those concepts are applied to masonry restoration work are reviewed. Techniques for maximizing esthetic success, including

various approaches to tooling, texturing, forming/pouring and exposure of aggregates are then illustrated through project examples and live demonstrations.

APPLICATION PROCESS

Approaches to repairs of different sizes and depths, replication of complex terra cotta glaze finishes, and the special issues revolving around wet terra cotta buildings are detailed. Particular attention is paid to properly sequencing work.

HANDS ON SESSIONS

The workshops include live demonstrations and hands-on exercises, giving participants an opportunity to see and feel the various repair and refinishing systems used in terra cotta and stone repair, and to try their hands at basic composite repair. Particular emphasis is placed on how to create different textures and profiles, how to blend repairs with adjacent elements, and how to control color variations.

MATERIALS:

- Composite Patching: Deep and Thin-Section Repair Mortars, Casting Mortars
- Adhesives and Primers
- Glaze Replacements and Faux Finishes
- Weathering Stains

May 29: Historic Mortars & Repointing, Structural Strengthening by Injection Grouting and Carbon Fiber-Reinforced Cement Plastering

A. HISTORIC REPOINTING

This program begins with a review of the basic components, principles and standards applying to both modern and historic masonry mortars and grouts. Included are the basic chemistry of various types of limes and cements, aggregate selection criteria, proportioning guidelines for modern and historic mortars, applicable ASTM Standards, approaches to color control and issues in mortar analysis.

Live demonstrations and Hands-On exercises will be the focal points of the program, enabling participants to see and better understand the key principles, materials, techniques and issues relating to use of mortars for various types of repointing and rebuilding projects.

Preparation of masonry for repointing will be discussed and various tools and techniques will be demonstrated. Parameters for performing consistent, high quality work will be detailed. Options for designing repointing mixes for both contemporary and historic buildings and structures will be reviewed. Issues of field-mixed vs. prepackaged mortars, proportion vs. performance requirements, and proprietary vs. generic mortars will be discussed.

MATERIALS:

- Quicklime and Hot Mixing, Lime Putty, Lime Hydrate
- Natural Hydraulic Limes, Pozzolanitic Hydraulic Lime
- Natural Cement

- Portland Cement
- Aggregates for Mortar

B. INJECTION GROUTING

The component on injection grouting includes case studies and demonstrations. Selection criteria based on compatibility with existing masonry assemblies are discussed.

Microinjection grouting of a multi-wythe brick test wall will be demonstrated. Use of microinjection grouts for surface filling of fine stone and masonry cracks will also be demonstrated.

C. CARBON FIBER REINFORCED CEMENT MATRIX (FRCM)

Seismic upgrade, structural strengthening and structural repair will be the subject of a half-day program presented by experts from the manufacturers of Ruregold.

Each participant will have the opportunity to perform a sample application of Ruregold carbon fiber reinforced cement plaster.

COURSE INCLUDES:

All materials (dependent on ticket selection), course notes and a few basic tools. Certificates of Completion will be provided to all participants.

In-person participants will be provided with lunch, snacks and beverages.

FOR MORE INFORMATION CONTACT CHAD LAUSBERG AT EDISON COATINGS:

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