

Formation continue

Custom-made erasers for cleaning of historical metals

3-4.9.2026

Trainers

Giulia Basilissi, has been engaged in the study and practice of conservation and restoration of cultural heritage, beginning her career as a scientific diagnostician and later specializing as a restorer. In 2009, she earned her undergraduate degree in Technologies and Diagnostics for Conservation and Restoration of Cultural Heritage from the Università di Firenze (Florence, Italy). That same year, she completed a traineeship at the Institute of Applied Physics « Nello Carrara » (IFAC) – National Research Council (CNR) in Florence. In 2015, she obtained a Master's degree in Conservation of Cultural heritage – specializing in metals and alloys, ceramics, waxes and glass – at the Opificio delle Pietre Dure in Florence. Her diploma thesis focused on the dry cleaning of silver using eraser. From 2015 to 2018, she worked as a freelance restorer-conservator. Since December 2018, she has served as a conservator at the Direzione Regionale Musei Nazionali della Toscana – Museo Archeologico Nazionale di Firenze.

Paolo Belluzzo, obtained a Master's degree in 2001, in classical studies with a thesis in Greco-Roman archaeology at the Università degli Studi di Milano (Italy). He then studied conservation and restoration at the Scuola di Alta Formazione dell'Opificio delle Pietre Dure in Firenze, where he specialized in metalwork and goldsmithing, with laser cleaning of silver artifacts as thesis subject. He worked freelance in various Italian regions from 2008 to 2018, when he won a public competition, becoming conservator at the Opificio delle Pietre Dure, assigned to the goldsmithing department.

Simone Di Virgilio, is a freelance conservator, initially trained as a chemical technician and later at the Opificio delle Pietre Dure in 2021, where he studied plastic arts before specializing in metal artifacts. During the most recent year of research, he had the opportunity to further explore the field of dry cleaning through an assignment of the Opificio and to collaborate with various Italian museums as a freelance conservator.

The course in brief

This two-day course provides both theoretical and practical training in the use of cleaning erasers for the conservation of metal artefacts. It offers an updated overview of current research on eraser-based cleaning methods within cultural heritage conservation and explores their main applications, with particular focus on metal surfaces. Even though the course focuses on the conservation of metals, information will also be provided on other materials, and the knowledge gained can be useful to conservator-restorers specializing in other areas as well.

Participants are encouraged to bring suitable artefacts for testing, following shared selection criteria. Cleaning outcomes will be recorded through guided evaluation tables. At the end of the course, each participant will receive a complete kit of cleaning erasers and a set of bibliographic resources for further study. Designed for conservator-restorers, conservation students, museum professionals and heritage scientists, this course equips participants with both practical skills and critical knowledge to implement innovative, low-impact cleaning techniques for metal artefacts effectively.

Objective

Participants will gain a solid understand of traditional metal cleaning techniques and critically compare them with eraser-based methods, evaluating their advantages, limitations, and suitability for different conservation contexts. A key feature of the course is the introduction to self-produced cleaning erasers, including their formulations, materials and preparation techniques. The course combines lectures with hands-on laboratory activities. During practical sessions, participants will produce their own erasers, prepare test samples and apply the materials to real case studies. Diagnostic results from the Opificio delle Pietre Dure will be presented and discussed, providing insight into the scientific evaluation of these materials and their long-term behavior.

Target audience

Conservators and conservation researchers

Course

Day 1 (welcome 8h30 / lesson 9h-17h)

- Course introduction : overview of cleaning erasers in cultural heritage conservation, including current research and main applications
- Metal cleaning : comparison of traditional cleaning methods and eraser-based techniques, discussing advantages, limitations and suitable applications
- Introduction to self-produced erasers : presentation of formulations, materials and preparation methods
- Practical session : production of self-made erasers and preparation of samples for drying

Day 2 (9h-17h)

- Results of diagnostic investigations : presentation and discussion of analyses carried out by the Opificio delle Pietre Dure on the self-produced erasers
- Materials provided : distribution of an eraser kit to each participant, including an explanation of the characteristics of the supplied materials
- Guidelines for artefacts to be brought by participants : presentation of recommended characteristics and selection criteria for participant-provided objects
- Practical applications : application of erasers to case studies, working on objects provided by the instructors and artefacts brought by participants
- Evaluation of interventions : guided completion of an evaluation table documenting cleaning results
- Feedbacks and discussion : final discussion and conclusions, followed by the delivery of bibliographic materials

Cost

CHF 650.-

Meals and travel expenses are not included.

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