

ITCC Metals 2024

IIC- International Training Center for Conservation (ITCC) a collaboration between IIC and the Palace Museum, Beijing.

Conservation and Restoration of Metal 2024

We are pleased to announce the next IIC-ITCC course will focus on the conservation and restoration of metal for mid-career professionals hosted at the Palace Museum in Beijing. The course will cover recent advances in metal conservation and conservation science including the chemistry of metal and metal alloys, deterioration mechanisms, manufacturing techniques, analytical techniques and tools, and advances in treatment methodology such as cleaning, corrosion stabilization, and surface protection. The course will also discuss a broad array of ethical and philosophical approaches to treatments for different types of objects and collections, including historical, contemporary, and archaeological metals, and shipwrecks. The course will include lectures, case studies, practical sessions, presentations, and site visits, and draw from the rich collections, resources, and expertise of the Palace Museum. Participants will be encouraged to network, share experiences and practices, and brainstorm as a group to find solutions to their own conservation challenges.

The goals of the ITCC series are to promote exchange and research on conservation at an international level and to develop professional capacity and standards in conservation, to learn from each other and to share their learning with others and develop a professional support network with the potential for future collaboration.

The provisional on-site training programme will include:

- Manufacturing Techniques of metal objects, overview and history
- Properties of metal and metal alloys
- Principles of Metal Corrosion
- Modern metal alloys, corrosion, and issues
- Preventive Conservation for metals
- Analyses and understanding of Metal Objects:
 - Introduction to analyses Destructive, non-destructive, non-invasive, etc. (XRF, SEM-EDS, metallography, Raman, electrochemical methods, etc.).
 - Analyses of metal at the Palace Museum, case studies.

- Analyses of metal, practical sessions with Palace Museum scientists and international instructors.
- The technical examination of Chinese bronze mirrors.
- The importance of the characterization of Chinese bronze corrosion products
- The metallography of Chinese cast iron and its decarburization for medium carbon steels.
- The copper tin equilibrium diagram and its application to tinned Chinese bronze surfaces and to high tin bronze alloys.
- Introduction to treatments
- Approaches to Different Metal Objects (Archeological, underwater, historical, modern and contemporary metals)
- Ethical considerations when treating metals
- Treatments: Shipwrecks
- Treatments and practical tutorials:
 - Cleaning
 - Patinas: theory and practice (patina v. corrosion crusts, to retain or remove)
 - Stabilization and inhibition of corrosion
 - Surface protection (types of coatings, waxes, etc)
 - Loss compensation techniques
 - *Replicas of Palace Museum metal objects will be available for practical sessions*
- Conservation and Restoration of Metal Objects at the Palace Museum, case studies
- Conservation and Restoration of Ming and Qing metal in the Palace Museum
- Practical exercises of Conservation and Restoration of Metal Objects with Palace Museum Conservators
- Ancient Chinese Bronzes
- Collections reading
- Participants case studies.

Tours of the Palace Museum and the Great Wall of China will also form part of the in-person training programme.

Two online modules lasting approximately one hour each, will be made accessible at the end of June 2024 to course participants to watch in advance of the in-person course. Details regarding the online and in-person elements will be confirmed with selected course participants in due course.

Time commitment

25 June 2024 - 28 June 2024: Two one-hour, online modules will be made available for course participants to view on-demand.

24 July 2024 - 3 August 2024: Course participants should be available to attend the full 11 day in-person programme hosted by the Palace Museum, Beijing. (23 July 2024 arrival for registration with 4 August 2024 departure)

8 August 2024 - 9 August 2024: Two one-hour online sessions. We are hoping that these two online sessions (in different time zones to support online participation around the world) will be

an opportunity for Q&A.

Selection criteria for international applicants

Applications are particularly encouraged from individuals from emerging economies including IIC priority regions Africa, South and South East Asia, South America and the Caribbean. The current involvement of the applicant in the conservation and restoration of metal collections or where applicants are entrusted with the care and management of collections that include metal objects.

Are mid-career (at least five to ten years post qualification experience).

The relevance of the course to the applicant's current work and potential benefit to the applicant's career The potential benefit to conservation of cultural heritage in the applicant's country.

Membership status with the IIC. Preference will be given to applicants who are currently members of IIC or who intend to become members before the course start date.

Proficiency in English

How to apply

There is no application form, instead you will need to send to the IIC office by email an application made up of:

A brief statement (up to 250 words, in English) describing how the course would be of benefit to you and to conservation in your country;

A copy of your current CV (curriculum vitae) with your full name and contact details / home postal address;

and A signed letter of support from one senior professional conservator (this could be your employer), who should be named, with their affiliations and full contact details.

Applications should be sent by email to iic@iiconservation.org.

The deadline for applications is **14 March 2024** (6pm GMT/London). Applicants will be notified as soon as a decision has been made, which is expected by the end of March to ensure course participants have sufficient time to arrange their visa. Please note the visa costs will need to be covered by the applicant. Travel and accommodation costs will be covered by the Palace Museum, Beijing. Successful international applicants will be informed of the arrangements for attendance by the Palace Museum, Beijing.

After the course, participants are required to submit a short report of their participation to IIC, this report will also be shared with the Palace Museum. The Palace Museum, Beijing, has secured the kind support of the Longfor Group as a generous sponsor for the three training courses in the ITCC series, 2024-2026, including the International Symposium planned for 2025.

Also of Interest

- [Careers](#)
 - [Find a Job](#)
 - [Professional Development and Learning](#)
 - [IIC Net Zero Pilot Programme](#)
 - [IIC Community Platform](#)
 - [Conservation Data](#)
 - [Leadership](#)
 - [Sustainability and Climate Action](#)
 - [Philosophy, Authenticity and Ethics](#)
 - [Leadership Mentoring](#)
 - [Fellowship](#)
 - [International Training Centre Courses \(ITCC\)](#)
 - [ITCC Metals 2024](#)
 - [ITCC Ceramic and Glass 2019](#)
 - [ITCC Paper and Photography 2018](#)
 - [ITCC Textiles 2017](#)
 - [ITCC Non-destructive Analysis 2016](#)
 - [ITCC Preventive Conservation 2015](#)
 - [Special Interest Communities](#)
 - [Conservation Standards and Guidelines](#)