Scientific Methods

Training at CHSOS Studio in Italy

"Training at CHSOS Studio in Italy" offers a unique, hands-on experience in art examination and conservation over three immersive days. Participants will explore scientific methods for analyzing pigments and artworks, practicing with essential tools in a collaborative environment. Bring your own pieces for analysis and gain practical insights into setting up and operating an art diagnostics lab in beautiful Sicily.

Antonino Cosentino

Training at CHSOS Studio in Italy

Scientific Methods for Art Examination

This training program provides a comprehensive introduction to all the methods utilized in our Art Analysis Service. Focusing on pigments and colored artworks, ranging from easel to wall paintings, this 3-day course will give participants an understanding of the most important techniques used in art examination and conservation. Participants will gain hands-on experience and insights into the tools and methods employed in analyzing and preserving works of art.

This training is designed for professionals who seek a broad, hands-on experience in art examination laboratories, rather than focusing on a single method. It is particularly suited for those involved in setting up an art examination lab and who need guidance on where to begin, which equipment is essential, and how to choose cost-effective, easy-to-operate, and maintain tools.

Features

You will practice all the scientific methodologies with hands-on activities with our lab equipment. No more than 5 participants are accepted because we want you to actively participate and ask your own questions and solve your specific doubts.

The Art Diagnostics Lab Experience. We want you to live for 3 days with the procedures of an art diagnostics lab. You will work with us practicing with the most important scientific tools for art examination that we use in our Studio.

Minimal Theory, Mostly Practical. We will not discuss much of the Chemistry and Physics theory behind the scientific methods. We feel that there is already plenty of books and online resources to learn all of this. Instead, you will practice with all the equipment to get a real feeling of the overall procedures for art diagnostics.

Who is this course for? You want to have a quick look at the practical application of scientific tools for art examination, from Imaging to Spectroscopy and Microscopy. You want to figure out how an Art Diagnostics Lab works, what equipment you need, and how easy or complicated is to operate a specific tool.

Bring your objects for FREE Analysis. You can bring paintings, historical prints, or drawings; we'll use them as a case study for our training program. We'll analyze your items as part of the training practice. Discuss this opportunity with us so we can determine what we can accomplish, depending on the objects brought by other participants.

Info

Title. Scientific methods for Art Examination
No Minimum number of Participants Policy. The courses run regardless of the number of participants! Even if it is just one participant, you. We made this decision to support our students so you can plan your travel well in advance, without having to wait for a final confirmation of the course.
Available Seats. max 5 participants
Fee. 990 euro +VAT.
Location. CHSOS Studio, address: via Matrice, 4, Viagrande 95029, Italy.
Timetable. We do 6 hours per day with this schedule: in the morning 9 AM-1 PM (4 hours) and in the afternoon 3 PM-5 PM (2 hours).

Logistics

Travel. We suggest flying to Catania (CTA) airport, 30 minutes drive from the Studio. From the airport, you can either take a taxi or, often, the B&B that you reserved also offers a pick-up service.
Accommodation. Viagrande is a small and picturesque village with a bit of tourism so there are a number of B&B you can choose from, most of them are close to our Studio. They are all listed on booking.com. We suggest you book one in downtown Viagrande, within walking distance from our Studio (via matrice, 4, Viagrande). Some suggestions: VELARDI B&B, House Angelina, IL B&B Maison Graziella
Eat. Food in Sicily is generally excellent. There are plenty of places to eat for breakfast, lunch, and dinner at walking distance from our Studio.

Registration

Please, fill up the form HERE. You will receive a reply from us within 24h confirming we have received your request and you have been accepted. This same email will have the link to pay your fee to finalize your registration.

Fee

Fee: 990 €

Learn more on our Training programs

Find more information on our training program for institutions and professionals. CLICK HERE.

Syllabus — Scientific Methods for Art Examination

Location: CHSOS Studio, Via Matrice 4, Viagrande (CT), Italy
Duration: 3 days (9:00–13:00, 15:00–17:00 — total 18 hours)
Max participants: 5 | **Fee:** €990 + VAT
Website: chsopensource.org

Course Overview

This intensive 3-day practical course provides hands-on training in the principal non-invasive imaging and spectroscopic techniques used in the examination of artworks. The focus is entirely on instrument operation and data interpretation, minimizing theoretical background to maximize time spent on practical work.

Day 1 — Imaging Techniques I

Technical Photography (UV–VIS–IR) — 5 h
Setup and operation of camera systems, filters, and illumination for visible, ultraviolet, and infrared photography. Acquisition of UV-induced visible fluorescence and IR reflected images. Interpretation and comparison of image results.

Infrared Reflectography (IRR) — 1 h
Near-IR imaging with specialized sensors and filters. Revealing underdrawings and subsurface features in paintings.

Day 2 — Imaging Techniques II

Reflectance Spectroscopy — 1 h
Measurement of spectral reflectance and material identification.

Multispectral Imaging (MSI) — 2 h
Sequential acquisition at selected narrow-band wavelengths. Processing of image stacks and visualization of pigment maps.

Microscopy — 1 h
Stereo and digital microscopy for surface morphology and paint structure.

Radiography — 1 h
X-ray imaging setup, exposure, and interpretation of radiographs.

Reflectance Transformation Imaging (RTI) — 1 h
Surface-shape capture using multiple light angles. Interactive rendering and topography evaluation.

Day 3 — Spectroscopic Techniques

XRF Spectroscopy — 3 h
Non-invasive elemental analysis of pigments and alloys. Spectral interpretation, overlaps, escape and sum peaks.

Raman Spectroscopy — 2 h
Molecular identification of pigments and materials. Managing fluorescence and optimizing laser parameters.

FTIR Spectroscopy — 1 h
Infrared spectra of organic and inorganic materials using reflectance and ATR.

Learning Outcomes

Participants will:
1. Operate major non-invasive imaging and spectroscopic instruments for art examination.
2. Capture, process, and interpret data from UV–VIS–IR photography, IRR, reflectance spectroscopy, MSI, RTI, microscopy, radiography, XRF, Raman, and FTIR.
3. Recognize how different techniques complement one another in the diagnostic workflow.
4. Apply the acquired methods to the study of real artworks.