

RESTORATION AND ANALYSIS LABORATORY



Thierry Radelet

Born in 1972 in Belgium, where he first began his studies. Moved to Italy to specialise in the field of restoration, first at the school of San Servolo (Venice) and then in Florence, focusing on the restoration of polychrome works on canvas and wooden panels.

He subsequently started working for some laboratories in the regions of Veneto, Emilia and Tuscany and also spent a long period in the monasteries of Mount Athos and Istanbul, where he focused on the restoration of icons. This experience laid the foundations for his specialisation in the restoration of paintings on wooden panels, which he still continues all over Italy. After moving to Turin, he worked for three years for a major laboratory where he began to study and apply the technique of multispectral analysis. Inspired by the innovative drive of the latest non-invasive diagnostic technologies applied to the field of art, he began collaborating with researchers, art historians, antiques dealers and restorers.

In 2001, he decided to open his own laboratory in Turin, where he continued his restoration work but at the same time established himself as a diagnostics consultant for both public and private clients.

He taught Multispectral Analysis

Techniques at the Faculty of Mathematical, Physical and Natural Sciences of the University of Turin (2004-2008) and then also at the Centre for the Conservation and Restoration of Cultural Heritage at La Venaria Reale (until 2013), where he was head of the IMAGING laboratory too (2005-2011).

Since 2012 he has been teaching Multispectral Analysis Techniques as part of the post-diploma course in the Restoration of Cultural Heritage at the Fantoni School in Bergamo.

Over the years, he has worked on pieces by leading artists such as Giotto, Pietro Lorenzetti, Lorenzo Ghiberti, Donatello, Beato Angelico, Sandro Botticelli, Luca Signorelli, Leonardo da Vinci, Pontormo, Bronzino, Vasari, Raffaello Sanzio, Domenico Ghirlandaio, Francesco Hayez, Angelo Morbelli, Pellizza da Volpedo, Gaetano Previati, Umberto Boccioni, etc.

With the skills acquired as both restorer and diagnostician, he has so far been able to study more than 5,000 works on various materials and from different periods, building up an extensive and exclusive data bank of painting techniques and state of conservation. Thanks to this wide knowledge, he has



become a point of reference for a variety of professional figures in the world of Cultural Heritage, from the superintendence authorities and public museums to private institutions, art historians, antiques dealers, gallery owners, collectors, restorers, lawyers and court-appointed experts. His experience is renowned at international level.

He has been able to put his diagnostic and restoration skills to the test in many different places, as the portable nature of the tools he uses means that they can be taken on-site.

Apart from writing numerous national and international publications, he also takes part in conferences to explain the results of the diagnostic analyses and restoration interventions he carries out on important works of art.



Diagnostics

The laboratory provides an exclusive, advanced diagnostics service for cultural assets. We directly carry out non-invasive studies that involve no sampling or alteration of the work of art. In particular cases where these analysis techniques aren't sufficient, and with the client's approval, we contact trusted external companies for further scientific examinations using techniques that call for microsampling.

Diagnostic studies are carried out prior to any other intervention, to obtain all the fine details about the materials and pigments used, and their state of conservation information that's vital for ensuring that the subsequent restoration work is organised in the best possible way. This service is run both for works restored at our laboratory and for other restorers.

In addition, diagnostic analysis – alongside an accurate historical and artistic study – enables us to establish the authenticity of a work of art and to verify the attribution by comparing the working techniques with other works by the same artist.

The analyses can be carried out on every type of material used from prehistory up to today. Of the many works examined, some of the most well-known are:

- The Last Supper by Leonardo da Vinci;
- the preparatory drawing for The School of Athens by Raphael;

- the Birth of Venus and Madonna Adoring the Child with the Infant Saint John the Baptist by Botticelli;
- the frescoes in the Sassetti Chapel by Domenico Ghirlandaio;
- coronation of the Virgin by Beato Angelico;
- the Passion Pulpit and the Resurrection Pulpit by Donatello;
- the Fourth Estate by Giuseppe Pellizza da Volpedo;
- the mosaics of the Baptistery of Saint John in Florence;
- the interior of the Church of the Nativity in Bethlehem.



Types of analysis

The analyses carried out by the laboratory, and listed below, provide information about the technique used to create the work, and its state of conservation. The results are obtained by comparing the individual types of analysis.

The techniques used are all noninvasive, in that they require no sampling, and are also non-destructive as they don't need any sample preparation and don't alter the analysed material in any way. The equipment used to make these analyses is portable, so the works can be examined directly at their place of installation. The analysis techniques we use are:

- HIGH-RESOLUTION PHOTOGRAPHY (diffused, raking, back-lighting, macro and micro)
- MICROSCOPIC ANALYSES
- ULTRAVIOLET FLUORESCENCE
- FALSE-COLOUR INFRARED UP TO 1700 nm
- INFRARED REFLECTOGRAPHY UP TO 1700 nm
- INFRARED TRANSMISSION UP TO 1700 nm
- ENDOSCOPE
- THERMOGRAPHY
- DIGITAL RADIOGRAPHY UP TO 300 kV
- X-RAY FLUORESCENCE







Photographs calibrated in high resolution



Wide-angle view

Detail









Microscopic analysis





Ultraviolet fluorescence





False-colour infrared 500-950 nm





Infrared reflectography up to 1700 nm





Endoscope





Thermography





Radiographic analysis up to 120 kV







Radiographic analysis up to 300 kV





X-ray fluorescence







Some of our clients

- Accademia di Francia, Rome
- Associazione Pellizza da Volpedo, Volpedo (Alessandria)
- Banca Patrimoni Sella & C., Turin
- Banca Popolare, Novara
- Castello di Rivoli (Turin)
- Chiesa di Santa Felicita, Florence
- Chiesa Santa Trinità, Florence
- Fondazione Accorsi-Ometto, Turin
- Fondazione Cassa di Risparmio, Tortona
- Fondazione Lucio Fontana, Milan
- Galleria d'Arte Moderna, Milan
- Galleria d'Arte Moderna, Turin
- Galleria d'Antiquariato Marco Datrino, Turin
- Gallerie degli Uffizi, Florence
- Gallerie dell'Accademia, Venice
- Galleria del Ponte, Turin
- Galleria Lorenzelli Arte, Milan
- Giordano Art Collections, Cuneo
- Laboratori di restauro Opificio delle Pietre Dure, Florence
- La Consulta per la Valorizzazione dei Beni Artistici e Culturali, Turin
- Museo Archeologico, Milan
- Museo Borgogna, Vercelli
- Museo Nazionale d'Arte Mediovale e Moderna, Arezzo
- Museo del Risorgimento Italiano, Turin
- Musei Reali, Turin
- Museo di San Marco, Florence

- Museo Egizio, Turin
- Museo Lucignano, Arezzo
- Galleria Nazionale d'Arte Moderna e Contemporanea, Rome
- Museo Stibbert, Florence
- Opera di Santa Maria del Fiore, Florence
- Opera Medicea Laurenziana, Florence
- Palazzo Madama, Turin
- Palazzo Vecchio, Florence
- Pinacoteca Ambrosiana, Milan
- Pinacoteca di Brera, Milan

Some of the artists whose works we have handled

- ARMAN
- BALLA Giacomo
- BASSANO Francesco
- BASSANO Jacopo
- BASSANO Leandro
- BEAUMONT Claudio Francesco
- BEATO ANGELICO
- BELLINI Giovanni
- BELLOTTO Bernardo
- BERGOGNONE
- BIROLLI Renato
- BOCCIONI Umberto
- BOLDINI Giovanni
- BOTTICELLI Sandro
- BOZZALLA Giuseppe
- BREUGHEL Jan il Vecchio
- BRONZINO
- BUONARROTI Michelangelo
- BURRI Alberto
- CARACCIOLO Giovanni Battista (Battistello)
- CARCANO Filippo
- CASTELLANI Enrico
- CIARDI Guglielmo
- CIVITALI Matteo
- CRANACH Lucas
- DADAMAINO
- DA VINCI Leonardo
- DELLEANI Lorenzo
- DE NITTIS Giuseppe
- DE PISIS Filippo
- DONATELLO

- FERRARI Defendente
- FERRARI Gaudenzio
- FONTANA Lucio
- FONTANESI Antonio
- GASTINI Marco
- GENTILESCHI Orazio
- GHIBERTI Lorenzo
- GHIRLANDAIO Domenico
- GIAMBOLOGNA
- GIOTTO
- GIOVENONE Gerolamo
- GOZZOLI Benozzo
- GRIFFA Giorgio
- GUALA Pier Francesco
- GUERCINO
- HAYEZ Francesco
- LANINO Bernardino
- LICHTEINSTEIN Roy
- LONGONI Emilio
- LOTTO Lorenzo
- MANCINI Antonio
- MANET Edouard
- MANTEGNA Andrea
- MANZONI Piero
- MENZIO Francesco
- MERZ Mario
- MODIGLIANI Amedeo
- MONDINO Aldo
- MONET Claude
- MORBELLI Angelo
- MORETTO (Alessandro Bonvicino)
- NERI DI BICCI

- NOMELLINI Plinio
- NONO Luigi
- PALMA Il Giovane
- PALMA Il Vecchio
- PARMIGIANINO
- PASCALI Pino
- PELLIZZA DA VOLPEDO Giuseppe
- PICASSO Pablo
- PICCIO (Giovanni Carnovali)
- PISTOLETTO Michelangelo
- PIFFETTI Pietro
- POMODORO Giò
- PONTORMO
- PORTELLI Carlo
- PREVIATI Gaetano
- RAMA Carol
- RANZONI Daniele
- RENI Guido
- ROSSO FIORENTINO
- RUBENS Pieter Paul
- SANZIO Raffaello
- SCHIFANO Mario
- SEGANTINI Giovanni
- SIGNORELLI Luca
- SPANZOTTI Giovanni Martino
- VAN DICK Antoon
- VASARI Giorgio
- VECELLIO Tiziano
- VENUSTI Marcello
- WARHOL Andy
- ZORIO Gilberto





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