

ADELE BOSI

BACKGROUND

I am a scientist focused on cultural heritage materials. I apply chemistry to answer art-historical and conservation questions.

I work with enthusiasm and I am imaginative.

I have good dissemination skills and experience in science communication.

MAIN INTERESTS

- Organic compounds analysis
- Archaeometry
- Science communication

EXPERIENCE IN THE USE OF

FTIR spectrophotometer
Perkin Elmer Paragon 1000 PC, PU
9800 Philips ATR-FTIR, JASCO
FTIR410

Raman spectrophotometer
Horiba Jobin-Yvon HR Evolution μ -
Raman

HPLC
Agilent Technologies 1260 Infinity II

FORS spectrophotometer
BWEK Exemplar LS

Optical microscope

Data analysis software
Spectrum Perkin Elmer, Origin 9,
BWSpec and Agilent
OpenLab

EXPERIENCE

*Rathgen-Forschungslabor, National Museums of Berlin | 2019
(Germany)*

Study of synthetic organic pigments properties and identification by means of FTIR spectroscopy, μ -Raman spectroscopy, HPLC-DAD, solubility tests and microchemical tests.

*Potsdam Filmmuseum | 2018
(Germany)*

Study of magnetic sound materials decay phenomena by means of optical microscopy and ATR-FTIR spectroscopy.

EDUCATION

Sapienza University of Rome

PhD Cultural Heritage Chemistry | 2020 - ongoing

My project focuses on the development of a new in-situ micro extraction procedure to identify organic colourants in paint layers, preserving their integrity. The procedure involves the use of gel supports which can undergo multi-technique analysis (HPLC-MS-MS, SERS, UV-Vis-NIR spectroscopy).

Sapienza University of Rome

Master's degree in Conservation Science | 2015 - 2018

My thesis *Contemporary Graffiti: discovering their composition and alteration by FTIR and μ -Raman spectroscopy* is a study about street art paints composition and decay phenomena.

University of Ferrara

Bachelor's degree in Heritage Science | 2012 - 2015

My thesis, *The hidden frescos of Chiesa Nuova in Assisi: chemical methodologies in the restoration and conservation intervention*, refers to a frescoes restoration work I took part in Assisi, and focuses on the chemistry properties of products used.

OTHER SKILLS

Mother tongue in Italian, fluent in English. Basic knowledge of French and German

Good communication skills refined during courses and practice in science communication

Photographer skills gained during courses and practice

Good command of photo editing software
iPhoto, GIMP, Adobe Photoshop

PUBLICATIONS

- Alessandro Ciccola, Ilaria Serafini, Giulia D'Agostino, Belinda Giambra, Adele Bosi, Francesca Ripanti, Alessandro Nucara, Paolo Postorino, Roberta Curini, Maurizio Bruno, "Dyes of a Shadow Theatre: Investigating Tholu Bommalu Indian Puppets through a Highly Sensitive Multi-Spectroscopic Approach", *Heritage* 4(3):1807-1820 (2021)
- Adele Bosi, Alessandro Ciccola, Ilaria Serafini, Marcella Guiso, Francesca Ripanti, Paolo Postorino, Roberta Curini, Armandodoriano Bianco, "Street art graffiti: Discovering their composition and alteration by FTIR and micro-Raman spectroscopy", *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 225, 117474 (2020)

CONFERENCES

- Adele Bosi, Alessandro Ciccola, Ilaria Serafini, Valentina Nigro, Paolo Postorino, Gabriele Favero, Roberta Curini, "A new on-gel sampling system for identification of lake-pigments in polychromies", 40^o Dyes in History & Archaeology (DHA40) Conference organised by the British Museum, Online, 15-19 November 2021
- Adele Bosi, Alessandro Ciccola, Ilaria Serafini, Valentina Nigro, Paolo Postorino, Gabriele Favero, Roberta Curini, "On-gel sampling for analytical investigation of dyes in pictorial artworks: new advances", XXVII Congresso Nazionale della Società Chimica Italiana, Online, 14-23 September 2021
- Adele Bosi, Elke Cwiertnia, Ina Reiche, "Identification of synthetic organic pigments in Gebrüder Schmidt printing inks by Raman spectroscopy - A case study", Raman Spectroscopy in Art and Archaeology (RAA2019) Conference, Potsdam, 3-7 September 2019
- Bosi, Caroline Figueroa, Siobhan Piekarek, Ulrich Rüdell, "Research on Agfa and ORWO magnetic sound materials in the collection stock of Potsdam Film Museum", British and Irish Sound Archive 2018 Conference, Aberystwyth, 16-17 November 2018
- Adele Bosi, Alessandro Ciccola, Ilaria Serafini, Marcella Guiso, Francesca Ripanti, Paolo Postorino, Roberta Curini, Armandodoriano Bianco, "Modern Paints used in Street Art: Discovering their composition and alteration by FT-IR and μ -Raman spectroscopy", XVII Congresso Nazionale della Divisione di Chimica dell'Ambiente e dei Beni Culturali, Genoa, 24-27 June 2018