



Giovedì 25 Settembre 2025 alle ore 10:00 presso l'aula I

la **Dr. Federica Cappa**

Institute für Naturwissenschaft in der Kunst,
Akademie der bildenden Künste
Vienna, Austria

terrà il seminario dal titolo:

Development of new analytical strategies which benefit the exploration of written heritage

La presenza della S. V. sarà molto gradita

At the Institute for Natural Sciences and Technologies in the Arts at the Academy of Fine Arts Vienna, one key focus is the study of written heritage, particularly medieval parchment manuscripts, often richly illuminated and decorated. Preserving and conserving these manuscripts is essential due to their materiality, content, and cultural significance. Through a series of interdisciplinary projects funded by the Austrian Science Fund (FWF), our institute fosters collaboration between the humanities and natural sciences, working together to support the preservation and conservation of world heritage. This collaboration has resulted in a methodology integrating multiple approaches: a) **Multi- and hyperspectral imaging** for enhanced manuscript documentation and analysis, improving readability and revealing hidden features; b) **Non-invasive elemental and molecular analyses**, combining X-ray fluorescence with compound-specific techniques such as Fourier-transform infrared (FTIR) and Raman spectroscopy; c) **DNA-based analyses (metagenomics)** of parchment, including characterization of animal DNA and the microbiome; d) alongside **fiber deterioration studies** using the Micro Hot Table (MHT) method.

This combination of non-invasive, micro-invasive, and selective invasive techniques can be tailored to each object and research question. The extensive dataset enables holistic and comparative studies, providing deeper insights into medieval manuscripts while offering practical strategies to preserve and safeguard these invaluable cultural treasures for future generations.

Il Direttore del Dipartimento

Alfonso Zoleo