

Taking a closer look at art: scientific research for the study and preservation of Cultural Heritage

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In the last century, scientists have been working in Museums with state-of-the-art instrumentation to address some fundamental questions regarding artists' materials and techniques, the deterioration of artifacts, the design of innovative conservation materials, the testing of their durability, the study of the effect of environmental parameters on objects in exhibitions and storage.

The talk will discuss recent applications of instrumental analysis to the investigation of artists' materials.

- The use of Raman microspectroscopy as a tool for dating, for authentication and for scholarly study and interpretation;
- The use of micro-ATR spectroscopy for the determination of the penetration of polymers in stone, investigating water-repellent treatments for Historical Architecture;
- The absorption of dyes on clays: unraveling the mysteries of the technology of color fabrication of ancient pre-Columbian cultures.