Brooklyn Frontiers in Science

The American Chemical Society Brooklyn Subsection and the NYU Tandon School of Engineering present a free lecture to the public.

Brooklyn Frontiers in Science Lecturer

Dr. Marco Leona

12.03.2015 5:30 – 7:00 PM Pfizer Auditorium NYU Tandon School of Engineering 5 Metrotech Center Brooklyn, NY 11201



The Science and Art of Color

Four thousand years of experimentation and discovery through the collection of the Metropolitan Museum of Art



The creation of a work of art is a process often depicted as untouched by material constraints. Pure, unfettered inspiration, without the limitations imposed by physics. It should be evident, however, that only with materials having defined physical properties a certain esthetic effect can be obtained. The quest for color, for beauty is a fundamental constant in human history, as well as an economic engine, and an inspiration for art and technology alike.

While we easily recognize that the desire to produce richer and more lively images is a clear driver to seek new materials, on the other side of the world, in mines or forests, or in the crucibles of the alchemist (or of his modern counterpart, the chemist), we often overlook how new materials lead to new esthetics.

Using advanced analytical chemistry we can build a material history of art based on physical evidence gathered from masterpieces spanning four millennia, from ancient Egypt to Modernity, demonstrating that technological developments were not only readily embraced, and often prompted by artists and their audiences, but also that they in turn created new forms of expression.

Marco Leona is the David H. Koch Scientist in Charge of the Department of Scientific Research at The Metropolitan Museum of Art. He completed his studies in Italy where he obtained a "Laurea in Chimica" (M.Sc., Chemistry) from the Universita' degli Studi di Pavia (Pavia, Italy), and a PhD in Crystallography and Mineralogy from the same university in 1995. Prior to joining the Metropolitan Museum Dr Leona worked at the Freer Gallery of Art in Washington DC, and at the Los Angeles County Museum Art LACMA. At the Metropolitan Museum of Art he supervises a team of eleven scientists conducting research on artists' materials and techniques and on art conservation. Starting in 2010 Dr. Leona has joined the faculty of the Conservation Center of New York University's Institute of Fine Art as a lecturer in analytical chemistry. Dr. Leona was the co-chair, with Rick Van Duyne, of the 2009 Mellon-NSF workshop on Chemistry and Materials Research at the Interface between Science and Art, and the co-chair, with Heinz-Eberhard Mahnke of the first Gordon Research Conference on Scientific Methods in Cultural Heritage Research, in 2012.

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