

PRESS RELEASE  
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## Leonardo da Vinci and Optics

Florence, 26–28 May 2011

**An international Conference of the Kunsthistorisches Institut in Florenz – Max-Planck-Institut in cooperation with the McIntire Department of Art, University of Virginia, organized by Francesca Fiorani and Alessandro Nova, Executive Director of the Kunsthistorisches Institut in Florenz**

Optics – the science of light, its generation, nature, propagation and behavior – was of fundamental importance for Leonardo da Vinci's painting. Throughout his life he devoted his attention to the most varied optical phenomena and annotated them in diagrams, sketches, drawings and texts. His overriding concern here was the transfer of his optical discoveries from one system of representation (e.g. diagram) into another (painting, drawing), in order to provide a theoretical foundation in optics for his pursuit of *sfumato*, *chiaroscuro* or aerial perspective in painting.

Leonardo had carefully studied ancient and medieval treatises on optics, e.g. those of Aristotle, Euclid, Roger Bacon and Alhazen. They were the basis of his investigation of every possible aspect of medieval optics, from mirrors, shadows and proportions to the anatomy of the eye. He conducted numerous experiments, for instance on colored light sources. He investigated optical illusions and errors. He also explored the interaction between sensory data and intellectual faculties of the human mind, the relation between imagination and memory, and the importance of the senses in the acquisition of knowledge. Not least he wished to make optics the basis of artistic training and planned, but never completed, an illustrated book on the subject.

The aim of the Conference is to investigate the fundamental role played by optics in Leonardo's thought and art from the viewpoint of the history of art, science, philosophy and literature. It will analyze both Leonardo's theoretical writings on optics and his drawing and painting techniques, in which he translated his optical knowledge into visual forms. In presenting a modern understanding of Leonardo's optical knowledge and research, the aim will be to focus on those findings that have especially been acquired through modern methods of analyzing his painting and drawing techniques, as well as his idiosyncratic form of annotation which freely combined his own observations with excerpts from foreign texts and notes on his own experiments.

Leonardo's researches were rooted in artistic practice, theoretical writings and optics, which had become established as a "*scientia media*" between philosophy and mathematics. The Conference offers the opportunity for a reconsideration of the relation between theory and practice in the Renaissance, between university teaching and workshop practice, between the writing of practical manuals and scientific treatises, and the role of the senses in cognition and knowledge.

**Further info:**

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