

ART & SCIENCE: CONNECTIONS AND INTERSECTIONS
*An annual symposium dedicated to the seamless connections between
the visual arts and the sciences*

2014: *The Interpretation of Images, Objects, and Data*

Friday, April 25, 2014

1:00 pm – 6:00 pm; reception 6:00 pm – 7:00 pm

ISE Lab, University of Delaware, 221 Academy Street, Newark, DE 19716

For Directions and Parking Information, go to www.udel.edu/maps

Ticket price: \$50; students \$20

To register, go to www.udel.edu/events

Program Schedule:

- 1:00 pm Greetings from Provost Domenico Grasso
- 1:07 pm Introduction from Lawrence Nees, Professor and Chair, Department of Art History
- 1:10 pm Dabney Hailey, Hailey Consulting Group, Boston
“What’s Happening in this Picture? Visual Thinking in Higher Education and the Workplace”
- 2:00 pm Charles T. Little, Senior Curator, Department of Medieval Art, Metropolitan Museum of Art, New York, and co-director of the Limestone Research Provenance Project
“Rays, Neutrons and C14 for Art’s Sake”
- 2:30 pm Kristin de Ghetaldi, Ph.D. candidate Art Conservation
“Using Art and Science to Resurrect a Giant: The Conservation of Pietro da Cortona’s *Triumph of David*”
- Elizabeth S. Diker, UD Honors Program, Art Conservation & Art History
“Looking for Scent on Medieval Silk and Ivory”
- 2:55 pm Questions for first session
- 3:10 pm Coffee Break

- 3:40 pm Introduction from John Jungck, Professor, Biological Sciences and Director, Interdisciplinary Science and Engineering Laboratory (ISE Lab)
- 3: 45 pm Abigail Quandt, Head of Book and Paper Conservation/Senior Conservator of Manuscripts and Rare Books, The Walters Art Museum, Baltimore
"Rediscovering Ancient Science through Modern Technology: the Archimedes Palimpsest Project"
- 4:15 pm Maura C. Flannery, Professor of Biology and Director of the Center for Teaching and Learning, St. John's University
"Herbaria: Where Science and Art Interact"
- 4:45 pm Barbara Stafford, Independent Scholar and Curator; William B. Ogden Distinguished Service Professor Emerita, University of Chicago; Distinguished Visiting University Professor, Georgia Institute of Technology
"At the Intersection of Art and Neuroscience: The Case of Visual Awareness"
- 5:35 pm Questions for second session
- 5:55 pm Final Comments from Dean of Arts and Sciences George Watson
- 6:00 pm Reception

SPEAKERS:

Maura C. Flannery

Professor of Biology and Director, Center for Teaching and Learning, St. John's University, New York

“Herberia: Where Science and Art Interact”

ABSTRACT

Maura C. Flannery's research is directed toward the visual aspects of biology and the aesthetics of science. She is particularly interested in herbaria, collections of preserved plant specimens, primarily pressed plants mounted on paper. Both fine botanical illustrations and herbaria first appeared in the mid-16th century; since then, there has been a close relationship between them. Flannery will explore the connections between plant specimens and their renderings as she argues that botanical art has been pivotal in the communication of information about plants. Herbaria remain important in this context today with many employing botanical illustrators. They also are resources for other artists, including those creating conceptual work making use of herbarium collections. Flannery contends that works of art are a significant means by which herbaria communicate their relevance to the public, leading the way for scientific advances much as they did in the Renaissance.

BIOGRAPHY

Maura C. Flannery is Professor of Biology and Director of the Center for Teaching and Learning at St. John's University, NY. She has been a Carnegie Scholar and is an American Association for the Advancement of Science (AAAS) Fellow. She has published two books, and her articles on the relationship between art and biology have appeared in *Leonardo*, *Perspectives in Biology and Medicine*, and *Biology International*. Her research now focuses on the history of botanical collections and their relevance today.

Dabney Hailey

Hailey Consulting Group, Boston

“Taking Visual Thinking into the Laboratory and the Boardroom”

ABSTRACT

Dabney Hailey is a specialist in Visual Thinking Strategies (VTS), a pedagogical method rooted in research from cognitive psychology and arts education.¹ It was developed to enhance participants’ aesthetic thinking skills or ability to make meaning from art through observation and discussion. VTS participants are partners in the interpretive process who encourage the group to have an authentic experience with an ambivalent, challenging object layered with complex data—a work of art.

Hailey will demonstrate VTS by facilitating a discussion with the audience about a work of art, pointing out ways the method connects with a range of cross-disciplinary and organizational concerns. VTS models fundamental questions and thinking processes critical to almost every discipline, such as thinking about thinking; asking the right questions; basing arguments in evidence; dwelling in uncertainty; valuing failed interpretations; recognizing that there might be more than one “right” answer; and developing skills to think/interpret through the visual (as opposed to, for example, the textual). She will conclude with a summary of her work applying VTS to the development of leadership and teamwork skills within businesses and nonprofits as well as within a range of disciplines including Anthropology, Biology, Business, Coexistence and Conflict, English, Fine Arts, History, Linguistics, Neuroscience, Philosophy, Psychology, Public Policy, Sociology, and Theater Arts.

BIOGRAPHY

Dabney Hailey is an established museum curator and educator specializing in modern and contemporary art. She is an expert Visual Thinking Strategies practitioner and trainer and a pioneer in the innovative use of VTS as a managerial tool within commercial enterprises and nonprofit organizations. Currently she is principal of Hailey Consulting Group, LLC, a VTS-based consultancy committed to improving leadership, team and communication dynamics within a range of organizations. Most recently, she was Director of Academic Programs at the Rose Art Museum, Brandeis University, where she was instrumental in effecting the museum’s turnaround from near closure to its current position as a vibrant contributor to the academic and wider communities. At Brandeis, she integrated VTS into courses across disciplines and continues to train faculty there, helping them implement the method in classroom and lab settings outside the museum.

¹ See Philip Yenawine, *Visual Thinking Strategies: Using Art to Deepen Learning Across School Disciplines* (Harvard Education Press, 2013).

Charles T. Little

Senior Curator, Department of Medieval Art, Metropolitan Museum of Art, New York, and co-director of the Limestone Research Provenance Project

“Rays, Neutrons and C14 for Art’s Sake”

ABSTRACT

Scientific tools to aid the art historian and curator have advanced rapidly in recent years. Neutron activation analysis (NAA) creates a kind of fingerprint identifier for limestone samples allowing for material to be linked to specific quarries, monuments, and ultimately to displaced or orphaned sculptures that have been removed in the past and that can be re-identified and possibly reunited. Several works associated with celebrated monuments of Medieval France will demonstrate the utility of NAA. In a similar way, debates about the authenticity of some Medieval objects carved in elephant ivory often can be resolved with carbon 14 analysis. Several famous carvings in the Metropolitan Museum and their relatives will demonstrate how overlooked treasures can be rehabilitated to their rightful place in the history of art.

BIOGRAPHY

Charles T. Little is Curator of Medieval Art at the Metropolitan Museum of Art and The Cloisters. His research interests lie especially in the areas of monumental sculpture and ivory carving. Among other projects, he has published *The Cloisters Cross: Its Art and Meaning* (with Elizabeth C. Parker) and is the organizer of the exhibition, and catalogue editor of *Set in Stone: The Face the Medieval Sculpture*, 2006. He is co-Director of the Limestone Sculpture Provenance Project, is a past president of the International Center of Medieval Art, and has taught as adjunct professor at New York University, the Institute of Fine Arts, and in the Department of Fine Arts.

Abigail Quandt

Head of Book and Paper Conservation/Senior Conservator of Manuscripts and Rare Books, The Walters Art Museum, Baltimore

“Rediscovering Ancient Science through Modern Technology: the Archimedes Palimpsest Project”

ABSTRACT

The Archimedes Palimpsest, a parchment manuscript containing the earliest surviving copy of Archimedes’ treatises, was the subject of a ground-breaking project based at the Walters Art Museum from 1999 to 2011. The goals of the project were to stabilize the severely deteriorated condition of the manuscript, to undertake multi-spectral and x-ray fluorescence imaging of the disbound folios, and to transcribe the erased ancient texts that had been hidden for centuries beneath Medieval Greek prayers. This presentation will emphasize the interdisciplinary nature of the project, which involved an unusual collaboration between conservators, imaging scientists, and classical scholars in addition to conservation scientists, art historians, data specialists, and a U.S. government employee with expertise in managing large digital projects. Over the course of twelve years the manuscript was painstakingly restored, thousands of high resolution images were captured and processed, and the erased texts were gradually transcribed and published by international teams of scholars. Among the notable achievements of the project were a re-evaluation of current theories on Archimedes’ contributions to science and the discovery of medieval copies of two previously unknown ancient texts that had been recycled for use in the palimpsest.

BIOGRAPHY

Abigail Quandt received a M.Sc. and Diploma in Conservation from the Winterthur/University of Delaware Art Conservation Program in 1982, after a third year internship in rare book conservation at the Library of Congress. From 1982-84, she was an advanced intern at Trinity College Library, Dublin and, during this time, spent one month studying with the English bookbinder and conservator Roger Powell. She subsequently worked for four years at The Walters Art Museum as a visiting manuscripts conservator and joined the staff in 1989. Since 2001, Quandt has been Head of the Department of Book and Paper Conservation at the Walters. She specializes in the conservation of illuminated manuscripts on parchment and has lectured and published extensively on this and related topics. She has taught a five-day course on parchment conservation for practicing book and paper conservators and was the co-compiler of a chapter on parchment for the AIC *Paper Conservation Catalog*, published in 1994. From 1999 to 2012, Quandt was the lead conservator for the Archimedes Palimpsest Project, whose focus was to conserve, image and transcribe the earliest surviving copy of Archimedes treatises, which dates to the tenth century.

Barbara Maria Stafford

Independent Scholar and Curator; William B. Ogden Distinguished Service Professor Emerita, University of Chicago; Distinguished Visiting University Professor, Georgia Institute of Technology

“At the Intersection of Art and Neuroscience: The Case of Visual Awareness”

ABSTRACT

There are now many important contributions to the scientific study of the brain-mind continuum. These results come both from research into non-ordinary states of consciousness and into the brain's intrinsic, largely unconscious mechanisms. The larger potential of such investigations consists precisely in making the parameters of our cognitive system apparent. But they also reveal the socio-cultural uses to which these parameters are currently or, in the foreseeable future, being applied.

This paper wrestles with that fact. Specifically, it examines the implications for those of us interested in the dynamics of visual awareness and the structural and phenomenological aspects of noticing. Because some of the key characteristics of consciousness are so ingrained that we are usually blind to them, it is all the more important to understand how and why we pay attention to certain features of our environment.

Subjective consciousness pertains to the realm of inner experience as well as focusing on the external world. What Daniel Dennett terms "intentionality," or directedness towards an object, is a sign of our connectedness to the outside world. Beyond connection, Stafford is interested in how complex works of art help us cognize, confer reality, or have knowledge of what lies before our eyes. She will argue that this delicate calibration of the agent's experience and her perception of the world is under threat today by subcortical tailored experiences, distractive electronic media, and the concomitant rise of filtering devices.

BIOGRAPHY

Barbara Maria Stafford is an independent writer, curator, and speaker. Her work has consistently explored the intersections between the visual arts and the physical and biological sciences from the early modern to the contemporary era. Her current research charts the revolutionary ways the neurosciences are changing our views of the human and animal sensorium, shaping our fundamental assumptions about perception, sensation, emotion, mental imagery, and subjectivity. She recently edited *The Field Guide to a New Metafield: Bridging the Humanities-Neurosciences Divide*, 2011, a book of essays from distinguished thinkers examining meaning and mental function from this dual experimental perspective.

For the past 20 years, she taught at the University of Chicago and for the last decade held a University Chair. An avowed imagist, her writing focuses on the history and theory of imaging and visualization modalities from the early modern to the digital era. Her books, in various ways, reveal the deep intersections connecting the arts, sciences, and optical technologies to one another: Geography/Geology/ Mineralogy [*Voyage into Substance*]; Anatomy and the Life Sciences [*Body Criticism*]; Neuroscience and Cognitive Science [*Echo Objects*]. She also writes historically-grounded manifestos on the vital significance of the Visual and Sensory Arts to general education as well as to society at large [*Artful Science; Good Looking*]. In addition, Barbara embodies her ideas in exhibitions, such as *Devices of Wonder: From the World in a Box to Images on a Screen* held at the Getty Museum, 2001/2002. Current projects include efforts to establish a laboratory/studio-based Ph.D. at SUNY Buffalo tying together the Neurosciences with Humanities/ Social Sciences-based Imaging. Stafford is currently Distinguished University Visiting Professor at Georgia Institute of Technology.

STUDENT SPEAKERS

Kristin de Ghetaldi

Ph.D. candidate, Department of Art Conservation

“Using Art and Science to Resurrect a Giant: The Conservation of Pietro da Cortona’s *Triumph of David*”

ABSTRACT

Since September 2013, Kristin de Ghetaldi, a Ph.D. Candidate in UD’s Preservation Studies Program, has directed the restoration of a large-scale oil painting, measuring twenty by twelve feet, presently attributed to the seventeenth-century artist Pietro da Cortona. The work, in the collection of Villanova University, has remained largely unknown to the art history community for more than fifty years. De Ghetaldi is collaborating with members of Villanova’s art history and chemistry departments to learn more about the materials and techniques associated with the painting. Non-destructive pigment and cross-sectional analysis has helped the conservation team to develop a better understanding of this composition. Research and analysis have been carried out by both Villanova students as well as conservation interns associated with University of Delaware’s undergraduate and graduate programs in Art Conservation.

BIOGRAPHY

Kristin de Ghetaldi is a painting conservator who graduated in 2008 with a Master of Science degree from the Winterthur/University of Delaware program in Conservation. She recently completed a three-year Andrew W. Mellon Fellowship in Painting Conservation at the National Gallery of Art working on the treatment of Old Master easel paintings. Under the guidance of scientists and conservators at the NGA, Kristin used a variety of analytical techniques focusing on questions specifically relating to media analysis. She also has participated in internships and conservation positions at the J. Paul Getty Museum, the Rijksmuseum in Amsterdam, and the RISD Museum. Kristin earned a post-baccalaureate certificate in conservation at the Studio Art Centers International in Florence, Italy (2004) and a BA in Chemistry from Grinnell College (2003). She is currently a Ph.D. Candidate in the Preservation Studies program at UD and is focusing on the transition from egg to oil paint in the Early Italian Renaissance.

Elizabeth S. Diker

UD Honors Program, Art Conservation and Art History

“Looking for Scent on Medieval Silk and Ivory”

ABSTRACT

Elizabeth Diker’s research is an exploration into the history of frankincense usage and storage in the medieval period and includes various methods for detecting traces of the aromatic resin on silk and ivory. This research will culminate in a discussion of the practical and ethical considerations of preserving scent in museum collections.

BIOGRAPHY

Elizabeth Diker is a senior at the University of Delaware in the Honors program with a double major in Art Conservation and Art History and a minor in Medieval Studies. Her research interests include the study of medieval material culture, particularly extant arms and armor. After graduation, she will pursue a Master’s Degree in Medieval Studies, concentrating on the material culture of medieval warfare.