



NATIONAL ENDOWMENT FOR THE

Humanities

DIVISION OF EDUCATION PROGRAMS

Narrative Section of a Successful Application

The attached document contains the grant narrative and selected portions of a previously funded grant application. It is not intended to serve as a model, but to give you a sense of how a successful application may be crafted. Every successful application is different, and each applicant is urged to prepare a proposal that reflects its unique project and aspirations. Prospective applicants should consult the Education Programs application guidelines at <http://www.neh.gov/grants/guidelines/seminars.html> for instructions. Applicants are also strongly encouraged to consult with the NEH Division of Education Programs staff well before a grant deadline.

Note: The attachment only contains the grant narrative and selected portions, not the entire funded application. In addition, certain portions may have been redacted to protect the privacy interests of an individual and/or to protect confidential commercial and financial information and/or to protect copyrighted materials.

Project Title: Leonardo da Vinci: Between Art and Science

Institution: University of Virginia

Project Director: Francesca Fiorani

Grant Program: Summer Seminars and Institutes for College and University Teachers

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I. NARRATIVE DESCRIPTION

A. INTELLECTUAL RATIONAL

Leonardo da Vinci: Between Art and Science examines the relations between art and science in the Renaissance, when disciplinary boundaries were not as clearly distinct as they are today. Combining the history of art, science, literature, and technology, the proposed Institute for College and University Teachers focuses on the works of Leonardo da Vinci (1452-1519), this versatile, canonical artist of western art who moved with equal ease among artistic, literary, intellectual, and scientific circles. Trained as an artist, Leonardo soon expanded his knowledge well beyond the traditional teaching of an artistic workshop to investigate thoroughly and obsessively the phenomena of the natural world. Throughout his life he recorded his observations in notes and geometrical diagrams in order to translate the knowledge derived from them in his own painting and drawing techniques. It is this endless research to transfer observations from one system of representation (geometrical and scientific diagrams) to another (painting and drawing) that defines the relations between art and science in the Renaissance and that will be the focus of the proposed Institute. Ultimately, by concentrating on the relations between art and science, the Institute elucidates further the overlapping processes at the root of modern science: how to record, visualize, and abstract first-hand observations, and, even more importantly, how to translate these observations from one system of representation to another.

Art and Science

Today art and science are practiced as divergent forms of knowledge, but in the Renaissance they shared historical roots, methods of inquiry, and the belief in the cognitive

power of images. Then, to re-create the ancient world and to investigate the secrets of nature were regarded as part and parcel of the same cultural project. Natural philosophy -- to use the name that designated science in the Renaissance-- studied nature alongside ancient works of art. In fact, natural philosophers, scholars, artists, merchants, and craftsmen worked side by side in the utopian attempt to reconstruct the meaning and context of the ancient texts that were resurfacing, after centuries of neglect, from monastic libraries across Europe. Resourcefully, Renaissance scholars and artists shared their expertise in interpreting these fragmented texts in conjunction with whatever additional materials from the ancient world they had been able to gather. They took what we would call today an interdisciplinary approach to the ancient world, commingling mathematics and philology, science and humanism, measurements and antiquarianism, art and science. Along the way, they also designed the contours of the modern world.

In this joint process of rediscovering the ancient world and of inventing the modern one, images played a fundamental role. Images were among the most famous products of the period, especially the images created by such artists as Leonardo, Michelangelo, and Raphael, which became icons of Western culture. But, in the same period, images were also the undisputed protagonists of the investigation of the natural world.

The Institute will offer a setting for engaging and penetrating reflections on the cognitive role of images, a topic at the crossroads of traditional disciplinary boundaries. Faculty and visiting scholars will come from different backgrounds, training, and institutions, but they will share the vision of an integrated approach to Renaissance culture that takes into account the role of images and of visualization in the construction and transmission of knowledge. This heterogeneous group, which reflects the interdisciplinary

intermingling of the Renaissance itself, will ponder on Renaissance art and science through a multi-facet and sustained analysis of Leonardo's paintings, drawings, and writings.

Leonardo da Vinci (1452-1519)

Leonardo left us about a dozen paintings and thousands of pages and drawings on botany, anatomy, optics, meteorology, architecture, painting, weaponry, geology, and much more. The sheer quantity and breadth of Leonardo's investigations, the many systems of representation he explored (diagrams, paintings, sketches, detailed drawings, notes, and treatises), and the great variety of media he used (pigments, chalks, pens, metal points, varnishes, and glazes) encourages and facilitates the comparison between the artistic and scientific meaning of his works, between their philosophical and religious significance, and between the different roles that images played in Renaissance workshop practice, science, observation, philosophy, and religion.

During the Institute we will explore Leonardo's different strategies in investigating, representing, and explaining natural phenomena, showing how these different strategies worked simultaneously in the artist's mind since his early days as a painter. Specifically, we will discuss how exactly an artist, who was trained in the practice of painting, read, used, and comprehended scientific treatises that were intended for university training in natural philosophy, and how he translated that theoretical knowledge into painting and drawing techniques.

Interdisciplinary in approach, the Institute has two main aims. First, it focuses on a deep understanding of Leonardo's multiple activities, exploring how Leonardo connected his scientific investigation of the world with his activity as a painter, how words and images interact with each other in his notes, and what is the significance of Leonardo's legacy

today. Second, by focusing on Leonardo da Vinci's works and writings, the Institute will address broader themes pertaining to the status of images in the construction and transmission of knowledge, the limits of observation and representation, and how these limits were articulated in sixteenth century philosophy and art theory. Ultimately, the Institute engages with the investigative processes at the root of modern science: how to record, visualize, abstract, and circulate first-hand observations.

Florence, Italy

The actual Institute will take place in Florence, Italy, a city that offers a unique combination of scholars, resources, and original works by Leonardo that is fundamental to the interdisciplinary exploration the Institute seeks to pursue. Invaluable resources are the urban fabric of the city itself, its libraries, archives, research institutions, and museums, including the Museo Galileo dedicated to the history of science. Suffice to mention such famous research resources and institutions as the Biblioteca Nazionale Centrale, the Biblioteca Riccardiana, the Biblioteca Mediceo-Laurenziana, the State Archive, the University of Florence, the Villa I Tatti – The Harvard University Center for Italian Renaissance Studies, and the Kunsthistorisches Institut in Florenz (KHI) Max-Planck-Institut, which will be the hosting institution of the proposed NEH Institute in Florence (see “Institutional Context” below).

In Florence, Institute faculty will have the exceptional opportunity of combining a sustained classroom discussion led by experts with the first-hand examination of Leonardo's painting and drawings kept at the Uffizi Gallery. They will also have easy access to high-quality facsimile editions of Leonardo's manuscripts in three venues: at the Museo Galileo, which owns both the physical books and a digital version (the latter is accessible

only on the premises of the Museo Galileo), the Biblioteca Berenson at the Villa I Tatti, and at the KHI, which will host the proposed NEH Institute. It is worth mentioning that Leonardo's original manuscripts are not available for consultation, not even to specialists, and that the facsimile editions of his writings are so expensive that only a handful of libraries owe them in the United States.

Institute faculty will have plenty of opportunities to take advantage of research resources in Florence after the Institute's scheduled activities. Many museums, libraries, archives, and institutions are open daily until 7.00 pm and some also on Saturday mornings, including the State Archive, the Biblioteca Nazionale Centrale, the KHI, the Biblioteca Berenson, the Museo Galileo, and the Uffizi Gallery. Others are open two or three afternoons a week, such as the Biblioteca Mediceo-Laurenziana and the Biblioteca Riccardiana. Museums are open daily, including in the afternoons and on weekends. Institute faculty will be provided with a museum pass to Florentine museums.

A hub for the study of Renaissance art, architecture, history, literature, culture, religion, and history of science, Florence is the privileged destination for an international community of scholars who come from all over the world to conduct research on Renaissance studies in the city, especially during the summer months. A distinct advantage of having the Institute in Florence is the opportunity for Institute faculty to interact not only with the Institute's visiting scholars but also with the broader community of scholars residing or researching in Florence.

Aided by her network of contacts in Florence, the director will assist Institute faculty to seek access to resources and collections as needed and create opportunities of exchange with the broader community of international scholars.

B. CONTENT AND IMPLEMENTATION

Structure

The Institute will convene in Florence for three weeks, from June 25 to July 13, 2012. It will be organized topically around three major themes, one theme per week: “Art and Science, Word and Image”, “Painting and Drawing”, “Craftsmen and Scholars”. The three themes, which will be interwoven throughout the Institute, have been selected to address the most cogent issues in the advancement of Leonardo’s studies. “Art and Science, Word and Image” addresses the unique challenges of scholarly interpretation presented by Leonardo’s writings, which combine freely words and images, excerpts from earlier authors and first-hand observations. “Painting and Drawing” offers a fresh and unmediated evaluation of Leonardo’s painting and drawing techniques, which are very hard to study due to the generally unfavorable viewing conditions of his works in museums. “Craftsmen and Scholars” focuses on channels and networks of communication between craftsmen and scholars in the investigation of the natural world.

The Institute will meet daily, Monday through Friday. In the morning, from 9.00 to 11.30, a visiting scholar will present a topic based on his/her own expertise and lead a group discussion based on a selection of pre-assigned readings (see “Reading List” in Appendix B). In the first week, during two afternoons (1.00-3.00) Institute faculty will reconvene with the Institute director and with the KHI Director for an orientation to research resources. Otherwise, afternoons are reserved for individual meetings with the director and visiting scholars, the independent exploration of research resources, and the development of the individual projects.

Faculty's Role and Individual Projects

It is expected that faculty will come to the Institute with a strong interest in Renaissance studies, in the relations between art and science, or in some aspects of Leonardo's work, be it a specific branch of knowledge he investigated (i.e. anatomy, botany, optics, cosmology, art theory), a selection of his paintings and drawings, or some of his writings. Although earlier training in the analysis and interpretation of Leonardo's works is not required, it is expected that faculty will pursue an individual research project based on their interests and training and closely related to the topics discussed in the Institute. Before the beginning of the Institute, faculty will be asked to send to the director a thoughtful statement of their expectations from the Institute and an outline of their individual projects. The director will assist in the definition of these individual research projects and in the location of proper resources, while visiting scholars will be available for consultation during the Institute.

The importance of these individual projects cannot be overstated. Through the development of their individual projects, faculty will master the skills taught during the Institute, but they will also explore possible long-term collaboration with other faculty, with the director, and the visiting scholars. Afternoons will be set aside specifically for the research and development of the individual projects. In the afternoons of the last week, Institute faculty and director will meet in a workshop setting for the presentation of the individual projects and to build the contours of their future collaboration.

Introduction to the Institute

On Monday, June 25th, during the first session of the Institute, the Institute director and the Director of the KHI, the hosting institution in Florence, will present the scope and

organization of the Institute and encourage faculty to share their expectations, interests, and research goals. In the evening, Institute faculty and visiting scholars who are in Florence will gather for an informal welcome dinner offered by a private donor.

Week 1 – Word and Image

The first week will be devoted to Leonardo's thinking and writing process. It will focus specifically on Leonardo's idiosyncratic form of writing, which combined note taking from observation with excerpts from earlier authoritative texts, and which presents a constant interplay between word and image. As it is well known, Leonardo never completed a book, even though he planned many on every possible branch of knowledge. His heterogeneous and fragmentary notes present immense challenges of interpretation and dating, which are fundamental for an understanding of Leonardo's thought process and of his methods for transferring scientific observation into pictorial and graphic language. Two eminent visiting scholars will guide the faculty through the intricacies of Leonardo's writings.

Martin Kemp, Professor emeritus, Oxford University, UK, and the leading Leonardo scholar, will open the Institute with a two-day presentation that will offer a substantive and stimulating introduction to both the relationship between art and science in the Renaissance and Leonardo's mind. Trained as a scientist and an art historian and the author of innumerable books, articles, and exhibitions on Leonardo, Kemp will teach us strategies to reconstruct Leonardo's thought process from his notebooks, drawings, and paintings. He will illustrate with concrete examples how Leonardo's mind worked in combining visual observation with abstract diagrams, ancient authors with first hand

observation, art with science. The focus of Kemp's presentation will be Leonardo's intricate connections among art, machines, the human body, the earth, and the cosmos.

Carlo Vecce, Professor of Literature at the University of Naples "L'Orientale", is the leading authority on Leonardo's literary writings and a careful editor of some of his manuscripts. He will lead the Institute for two days, sharing his expertise on the relation between word and image in Leonardo's writings. Building on his editorial work on Leonardo's Codex Arundel (British Library) and the *Libro di Pittura* (Vatican Library) he will explain how Leonardo compiled his notebooks and how they were rearranged after the artist's death.

The afternoons of the first week will be dedicated to the orientation to research resources, to individual meetings with the director to flesh out individual research projects, and to the independent exploration of research resources.

Week 2 - Painting and Drawing

In the second week Institute faculty will have the unique possibility of examining up close some of Leonardo's paintings and drawings together with curators and restores. This is an exceptional opportunity to evaluate Leonardo's artistic techniques considering the highly restricted access of Leonardo's drawings and the generally unfavorable viewing conditions of his paintings and drawings in museums. This direct observation of Leonardo's works, coupled with the in-depth study of restoration reports, will be fundamental to acquire a fresh understanding of how Leonardo imbued his paintings and drawings with scientific knowledge.

Antonio Natali, Director of the Uffizi Gallery, will guide the faculty to an in-depth examination of Leonardo's paintings, which we will be able to study in a private visit

scheduled during the museum's weekly closing day (Monday). In his approach to Leonardo's paintings, on which he has published extensively, Dr. Natali combines the study of iconography and religion with modern technical analysis. In his commitment letter Dr. Natali indicated that one of Leonardo's paintings at the Uffizi might be undergoing technical analysis in Summer 2012, thus presenting to Institute faculty the absolutely unique opportunity of following these analysis as they unfold.

Alessandro Nova, Director of the KHI and Professor of Art History, University of Frankfurt, has written extensively on Leonardo and anatomy, with a special interest in the relations between word and image in art and science. He will also address the Institute faculty on Leonardo and the wind, an apparently elusive topic, which however touches on one of Leonardo's main concerns, how to represented what is impossible to represent.

Cecilia Frosinini, Vice Director for Painting Restoration at the Opificio delle Pietre Dure, Florence, the world famous institution for the restoration and conservation of works of art, will guide Institute faculty through the state-of-the art laboratories of the Opificio. She will share with us the issues, debates, decisions, and technical analysis surrounding the conservation and restoration of Leonardo's paintings as well as the new knowledge gained from such work. Her presentation will offer the opportunity for broader consideration on the application of modern science to the conservation, restoration, and study of art. In past years Dr. Frosinini and her team conducted extensive technical examinations on Leonardo's paintings in Florence and elsewhere. In her commitment letter, she has suggested that they are about to embark on another major Leonardo project, the development of which we will be able to follow up close.

Marzia Faietti, Director of the Gabinetto dei Disegni e delle Stampe, Uffizi Gallery (GDSU) and an expert on Renaissance drawing, will share with Institute faculty her unique knowledge of Leonardo's drawing technique. She will make it possible for Institute faculty to examine first hand a selection of works on paper by Leonardo and his contemporaries currently kept at the GDSU, including his master Verrocchio, and his fellow artists Pollaiuolo, Perugino, Ghirlandaio, and Botticelli. This visit will offer the unique opportunity to highlight Leonardo's drawing technique in relation to his contemporaries.

Jonathan Nelson, Assistant Director for Programs at the Villa I Tatti – The Harvard University Center for Italian Renaissance Studies and Professor of Art History, Syracuse University, has written extensively on Florentine art and Leonardo, including a perceptive essay on Leonardo and femininity. He will lead the discussion on Leonardo, mythology, women, and femininity, showing the role of ancient art and culture in Leonardo's art and thought.

Pietro Marani, Professor of Art History, Politecnico di Milano, is a leading Leonardo scholar. Among many other initiatives, he was responsible for overseeing the restoration of Leonardo's *Last Supper* in Milan in the late 1980s. His presentation will focus on the relations between art and science in Leonardo's *Last Supper*.

In the second week, two afternoons will be devoted to individual research, while the others will be reserved to Nova's and Marani's presentation. On Saturday, the Institute will go to Milan to study Leonardo's works there, including the *Last Supper*, *The Musician*, and other works by Leonardo's followers (Florence-Milan is an easy two-hour train ride).

Week 3 - Craftsmen and Scholars

In the third week Institute faculty will delve into the theoretical foundations of Leonardo's investigation of the natural world, addressing the issues of his sources, his debt to earlier authors, and his own personal contribution to the conceptualization and visualization of old and new scientific problems. Themes pertaining to the circulation of practical and theoretical knowledge will dominate the discussion, with a special emphasis on the transmission and contacts between craftsmen's workshops and universities, academies, and courts.

Paolo Galluzzi, Director of the Museo Galileo, Florence, and Professor of the History of Science, will present the problems pertaining to Leonardo's machines, his technical drawings, and the issues surrounding modern attempts to reconstruct Leonardo's machines from his drawings. Galluzzi has written extensively on Leonardo and organized many exhibitions including *Mechanical Marvels: Invention in the Age of Leonardo* (1996) and *Leonardo's Mind* (2006), which is still traveling worldwide.

Sven Dupré, Director of the Center for History of Science and Professor of History of Science, University of Ghent (Netherlands), will explore networks for the exchange and dissemination of scientific knowledge and Leonardo's participation in them, topics that are central to his current scholarship. A cultural historian of science, the coordinator of the collaborative project *Circulating Knowledge in Early Modern Science* (Flanders) and the curator of the important exhibition *Galileo's Telescope. The Instrument that Changed the World* (Museo Galileo, Florence, 2008), Dupré has worked extensively on material culture and science, optics, instruments, and experiments, and wrote a seminal essay on Leonardo and mirrors.

Domenico Laurenza, Professor of the History of Science and researcher at the Museo Galileo, is an expert on Leonardo's anatomical studies, having written the acclaimed book *De figura umana: fisiognomica, anatomia e arte in Leonardo* (2003). He is currently editing a critical edition of Leonardo's Codex Leicester (owned by Bill Gates). Under his guidance Institute faculty will explore Leonardo's anatomical project, the artist's stunning anatomical drawings, and the place of anatomy within Leonardo's vision of art and science.

Frank Fehrenbach, Professor of Art History, Harvard University, will focus on Leonardo's knowledge of optics, showing the artist's connection with the medieval optical tradition as well as the artist's original interpretation of well-established religious subjects. Trained in the grand tradition of German iconography and history of ideas, Fehrenbach has the talent of combining the close analysis of images and texts with wide ranging conclusions on art, science, and religion.

In the third week, the afternoons will be dedicated to the presentation and discussion of the individual projects that Institute faculty pursued in Florence and to the discussion of possible future cooperation.

The visiting scholars are a distinguished group of leading historians of art, science, and literature. They have been selected for the relevance of their scholarship to the theme of the Institute.

Readings

The readings intend to offer a panoramic view of how the relations between art and science have been addressed in the Leonardo scholarship, from the seminal essays on the artist by Vasari, Freud, and Clark, to Kemp's studies of the 1970s and 1980s, up to the most innovative scholarship of the last decade produced by many of the visiting scholars. It is

this combination of classical studies and innovative recent essays that will prove stimulating in addressing anew the relation between art and science in Leonardo's works.

Seminal essays by Vasari, Freud, and Clark still hold a very special position in Leonardo scholarship. Event though their conclusions may be partially outdated due to new archival discoveries, recent restorations, or new interpretations, yet they continue to offer highly influential interpretations of the artist's personality, as discussed by Barolsky, Rubin, Schapiro, and Arasse in their articles included in the Institute's reading list.

It is on this background that Kemp's seminal essays of the 1970s and 1980s have to be understood. In a series of articles, some of which are included in the Institute's reading list, Kemp redirected Leonardo's studies. Unlike Clark, who did not consider Leonardo's manuscripts, and Freud, who read them incorrectly, Kemp read Leonardo's notes carefully, showing the artist's debt to past authorities and how is "geniality" was actually grounded in medieval thought and science. Kemp's synthetic view of Leonardo's mind culminated in the recent biography (2003), which is also assigned for the Institute.

At the same time, the understanding of how Leonardo wrote and how he combined images with words has increased considerably thanks to the work of scholars such as Carlo Pedretti and Carlo Vecce, whose scholarship has made Leonardo's manuscript pages accessible to a large public of scholars (Pedretti and Vecce). Later scholars have attempted to combine art and science, that is Kemp's and Vecce's approaches to Leonardo, usually concentrating on particular aspects of Leonardo's art (Bambach and Rosand on drawing, Shearman on color) or his science (Laurenza on anatomy, Fehrenbach on optics, Galluzzi on machines), while others have focused on the application of modern technology to the analysis of Leonardo's art (Natali, Frosinini, Keith, and Mottin). Finally, historians of

science have considered the cognitive power of images and their role in science (Pomian, Daston, and Galison) and have given context to Leonardo's scientific investigation (Galluzzi, Dupre).

It is expected that the assigned readings, which exemplify different methodological approaches as well as different disciplines, coupled with the meetings with the visiting scholars and the group discussions, will stimulate new synthesis on the relations between art and science in the Renaissance.

C. FACULTY AND STAFF

Project Director

Francesca Fiorani, Associate Professor of Art History, University of Virginia, will direct the Institute. The topics of the Institute are deeply related to her longstanding interest in the relationship between art and science in early modern Europe and to her most recent research on Leonardo's shadows, on which she is currently completing a book. Fiorani has written extensively on Renaissance art, cartography, collecting, theory of space and color, including the book *The Marvel of Maps. Art, Cartography and Politics in Renaissance Italy* (Yale U. P., 2005). In past years, she has organized conferences and conference sessions dedicated to the artist, including the international conference "Leonardo and Optics" in collaboration with Nova and the KHI (May 2011). She is the director of the project *Leonardo da Vinci and His Treatise on Painting*, a digital archive devoted to Leonardo's art theory and its dissemination in early modern Europe. Housed at the Institute for Advanced Technologies in the Humanities (IATH) at UVA, the digital archive will be launched on September 1st, 2011 at <http://www.treatiseonpainting.org>.

This website might become a possible venue for the dissemination of the Institute's research results (see the section "Follow Up and Dissemination" below). At her home institution, Fiorani regularly teaches graduate and undergraduate courses on Leonardo and, in the past six years, she has designed, directed, and taught courses in Italy on Renaissance art and architecture to different groups of scholars and students. Her deep knowledge of Leonardo, her extensive experience with Italian institutions, and her longstanding collaboration with the KHI will assure a successful and smooth running of the proposed NEH Institute in Florence.

Institutional Support at the KHI

Alessandro Nova, Professor of Art History at the University of Frankfurt and Director of the Kunsthistorische Institut in Florenz (KHI) – Max-Planck-Institute, will serve as the liaison between the NEH Institute and the hosting institution in Florence. Nova has participated in the shaping of this proposal, contributing intellectual work, time, and expertise. He will play a continuous and active role in every phase of the preparation and running of the Institute (see the section "Institutional Context" below).

Visiting Scholars

The visiting scholars are leading European historians of art, science, and literature. Apart from Fehrenbach, who teaches at Harvard University, although he is German, the visiting scholars are all affiliated with European institutions, and five are actually based in Florence, thus being potentially available to Institute faculty well beyond their scheduled presentation. Indeed, a distinct advantage of holding the Institute in Florence is to be able to involve eminent European scholars and to offer to Institute faculty a broad exposure to different methodological approaches and institutional settings, as well as an extended

network of possible future cooperation. The visiting scholars and their contributions are listed in the section "Content and Implementation" above.

Staff

Two graduate students from the University of Virginia will provide support before, during, and after the Institute. One Graduate Assistant will be hired for eight weeks at the University of Virginia to prepare the Institute, while another will be hired to assist the running of the Institute in Florence. After the conclusion of the Institute, a Graduate Assistant will help the director to evaluate the most effective venue and form for the dissemination of the Institute's research results, be it a website, a book, a conference, a conference session, or a combination of the above.

D. PARTICIPANT SELECTION

In the fall of 2010, the director will convene a Selection Panel to select the Institute faculty. Applications will be accepted until mid March 2012 and final decisions will be communicated to selected Institute faculty by April 15, 2012. The Selection panel will seek a proper balance of disciplines, including, among others, history of art, history of science, history, literature, philosophy, and Renaissance studies. First consideration will be given to applicants who have not participated in a NEH-supported seminar or institute in the last three years. Furthermore, we will reserve up to three spaces for full-time graduate students. Prior knowledge of Leonardo studies or of Italian is not required. The main selection criteria will be demonstrated interest in one or more of the topics addressed in the Institute, including Leonardo studies, relations between art and science, Renaissance studies, history of philosophy, literature, history of science, relations between word and

image. Demonstrated interest will be judged on personal statement and the proposed research project to pursue during the Institute.

E. INSTITUTIONAL CONTEXT

University of Virginia, McIntire Department of Art, Lindner Center for Art History

The University of Virginia is the flag ship institution of higher education in Virginia. Building on this distinguished tradition, in 2004 the McIntire Department of Art strengthened its programs in art history with the formation of the Carl H. and Martha S. Lindner Center for Art History. The Lindner Center has supported many scholarly activities in the area of Renaissance art, including conferences, research, travel, and publications that related specifically to Leonardo da Vinci. It has also assisted in the coordination of the study abroad programs directed by faculty members, including three specifically to Italy (two of them are directed by Fiorani).

Kunsthistorisches Institut in Florenz (KHI) – Max-Planck-Institut

The Institute's hosting institution in Florence will be the Kunsthistorisches Institut in Florenz (KHI) - Max-Planck-Institut, a world-renowned institution devoted to the History of Art and Architecture in Italy and to its relation to European, Mediterranean, and global history (<http://www.khi.fi.it/en/index.html>). The KHI is also the privileged meeting place of scholars from around the globe, who either pursue individual projects or work on the many international collaborative projects hosted by the KHI. The KHI includes an active research center, which organizes innumerable scholarly events and fosters lively and interdisciplinary academic exchange, a rich library of about 300,000 volumes on the history of art, culture, and architecture, a unique photographic collection of about 600,000 images on Italian art, and superb facilities for meetings and research. About sixty scholars

are usually at the KHI, while many more come and go on a daily basis. The KHI has an extensive collection of works related to Leonardo da Vinci, including facsimile editions of his writings, drawings, and notebooks. Conveniently located in the center of Florence and uniquely placed at the center of the intellectual life of the city, the KHI will be an ideal setting for the NEH Institute. Institute faculty will be given full access to the research facility at the KHI, will be invited to join its scholarly activities, and will have the opportunity to interact with research fellows at the KHI.

The KHI participated actively to the development of this proposed Institute through its Director, Alessandro Nova. The KHI will assist the NEH Institute with every aspect of the on-site organization. It will provide the use of classroom space, access to research facilities (library, photographic archive, and computer access), and logistic assistance as needed, including with the lodging of Institute faculty, visiting scholars, and director.

Housing

The KHI will coordinate lodging arrangements for Institute faculty, visiting scholars, and the Institute director. Building on its long-standing working relations with numerous Florentine hotels and facilities located in its immediate vicinity, the KHI will extend to Institute faculty, visiting scholars, and Institute director the favorable rates it has negotiated for its own fellows and visitors. Visiting scholars, who do not reside in Florence, will be lodged in hotels in the immediate vicinity of the KHI. Institute faculty will be lodged at the Hotel Rita Major, Via della Mattonaia 43, 50121 Florence, (ph. +39 055-2477990; fax +39 055-2478358; <http://www.hotelritamajor.it>). This is a comfortable, charming, family-run hotel within easy walking distance from the KHI and major museums, monuments, and institutions. Located in a characteristic residential area, the hotel is screened from the

crowds of tourists. Institute faculty will have the option of sharing a double room (about euro 30/night) or have a private room if they so choose (about euro 60/night). Italian-style breakfast is included, but meals are not included. Apart from the welcome and farewell dinners, which will be kindly offered by a private donor, faculty are on their own for remaining meals.

F. FOLLOW UP AND DISSEMINATION

Among the outcome of the Institute would be the long term collaboration between the director and Institute faculty in advancing Leonardo scholarship and in disseminating the artist's thoughts and writings more broadly. The director is specifically involved in the effort of making Leonardo's materials available, beyond a very small group of experts, to a larger public of scholars, teachers, and students so as to base the analysis of the artist's work on a rigorous scholarly study of his legacy. This effort is concentrated in the digital archive *Leonardo da Vinci and His Treatise on Painting* that Fiorani directs. This digital archive might provide a framework for future cooperation among Institute faculty and a venue for the digital publication of research results that emerged from Institute faculty's individual projects. Institute faculty might be interested in participating and contributing to future activities of the digital archive, which include sessions at national and international conferences, symposia, and research travel. Concrete opportunities of contribution and long-term cooperation between the Institute faculty, its director, and the visiting scholars will be explored in formal and informal conversations during the Institute and further pursued after its conclusion.

A. INSTITUTE SCHEDULE

WEEK 1 – Art and Science, Word and Image

Monday, June 25: Introduction

9.00-11.30: Francesca Fiorani and Alessandro Nova

1.00-3.00: Orientation to research resources I (Fiorani and Nova)

6.00-10.00 Welcome Dinner at the KHI offered by private donor

Tuesday, June 26: Leonardo's Thought Process I (Analogy)

9.00-11.30: Martin Kemp

1.00-3.00: Orientation to research resources II (Fiorani and Nova)

Wednesday, June 27: Leonardo's Thought Process II (Cosmography)

9.00-11.30: Martin Kemp

1.00-5.00: Individual meeting with Fiorani about projects and individual research

Thursday, June 28: Word and Image I

9.00-11.30: Carlo Vecce on Leonardo's Codex Arundel

1.00-5.00: Individual meeting with Fiorani about projects and individual research

Friday, June 29: Word and Image II

9.00-11.30: Carlo Vecce on Francesco Melzi's *Libro di pittura*

1.00-3.00: Individual research

WEEK 2 - Painting and Drawing

Monday, July 2nd: Early Florentine Paintings

9.00-11.30: Private visit to the Uffizi Gallery with Dr. Antonio Natali, Director, Uffizi Gallery

1.00-3.30: Alessandro Nova, Leonardo and the Wind

Tuesday, July 3rd: Restoring a Leonardo Painting

9.00-11.30: Private visit to the Opificio delle Pietre Dure with Cecilia Frosinini, Vice Director for Painting Restoration

1.00-5.00: Individual research

Wednesday, July 4th: Holiday

Thursday, July 5th: Leonardo's Drawings

9.00-11.30: Private visit to the Gabinetto dei Disegni e delle Stampe, Uffizi Gallery, with Director Marzia Faietti

1.00-5.00: Individual research

Friday, July 6th: Leonardo's Paintings9.00-11.30: Jonathan Nelson, Leonardo, the *Leda*, and Femininity1.00-3.00: Pietro Marani, The Art and Science of Leonardo's *Last Supper*Saturday, July 7th: Field trip to Milan11.00-1.00: Visit to Leonardo's *Last Supper* in Santa Maria delle Grazie

2.00-5.00: Visit to the Biblioteca and Pinacoteca Ambrosiana

WEEK 3 – Craftsmen and ScholarsMonday, July 9th: Machines and Mechanics

9.00-11.30: Paolo Galluzzi, Director, Museo Galileo

1.00-3.30: Presentation and discussion of individual projects

Tuesday, July 10th: Networks of Knowledge

9.00-11.30 Sven Dupré

1.00-3.30: Presentation and discussion of individual projects

Wednesday, July 11th: Anatomy

9.00-11.30 Domenico Laurenza

1.00-3.30: Presentation and discussion of individual projects

Thursday, July 12th: Optics

9.00-11.30 Frank Fehrenbach

1.00-3.30: Presentation and discussion of individual projects

Friday, July 13th: Concluding session

9.00-12.00 Final discussion and proposal on future cooperation(s)

6.00-10.00 Farewell Dinner at the KHI offered by private donor

B. READING LIST

Books and general essays will be sent to Institute faculty before the beginning of the seminar. It is highly recommended that Institute faculty will read them before the beginning of the seminar since they are fundamental to any informed and advanced discussion on Leonardo and on art and science in the Renaissance.

Books on Leonardo:

- Sigmund Freud, *Leonardo da Vinci and a Memory of His Childhood*, London, 1984
- Kenneth Clark, *Leonardo. An Account of his Life as an Artist*, with an introduction by Martin Kemp, Penguin: London, 1988
- *Leonardo on Painting*, ed. Martin Kemp, Yale U.P.: New Haven and London, 1989
- Martin Kemp, *Leonardo*, Oxford U.P.: Oxford and London, 2004

General Essays on Leonardo:

- Jean Paul Richter, "Appendix I: The History of the Manuscripts," in *The Literary Works of Leonardo da Vinci*, London: Oxford U.P.: 1931, 393-399
- Carlo Pedretti, "Appendix: The History of the Manuscripts", in *The Literary Works of Leonardo da Vinci*, U. of California P.: Berkeley, 1977, 393-402
- Patricia Rubin, "What Men Saw. Vasari's Life of Leonardo da Vinci and the Image of the Renaissance Artist," *Art History*, 13, 1990, 34-46
- Meyer Schapiro, "Freud and Leonardo. An Art Historical Study," in *Theory and Philosophy of Art. Style, Artist and Society*, New York, 1994, 153-192
- Giorgio Vasari, "Leonardo da Vinci", in *Lives of the Painters, Sculptors and Architects*, Knopf: New York, 1996, 2 vols., vol. 1, 625-640.
- Paul Barolsky, "Vasari and the Historical Imagination," in *Word and Image*, 15/3, 1999, 286-291
- Daniel Arasse, "Two Notes on Leonardo and Freud," in *Leonardo da Vinci*, 1998, 488-499, 527-528
- Carmen Bambach, "Leonardo Left-handed Draftsman and Writer," in *Leonardo da Vinci Master Draftsman*, The Metropolitan Museum of Art: New York, 2003, 31-57

General readings on art and science:

- Krzysztof Pomian, "Vision and Cognition", in *Picturing Science, Producing Art*, eds. Caroline A. Jones and Peter Galison, New York and London, Routledge, 1998, 211-230
- Lorraine Daston and Peter Galison, *Objectivity*, Zone Books, New York, 2007, chapters 3 and 4

Assigned Articles

A packet of assigned articles will be provided to Institute faculty before the beginning of the seminar. These articles will be the point of departure for the presentations and discussions lead by the visiting scholars. Institute faculty is expected to read them in preparation to the meetings with the visiting scholars. The assigned articles are divided according to the Institute schedule.

WEEK 1 – Art and Science, Word and Image

Kemp:

- Webster Smith, "Observations on the *Mona Lisa* Landscape," in *Art Bulletin* (1985): 183-199
- Martin Kemp, "The Hammer Lecture (1992): In the Beholder's Eye: Leonardo and the 'Error of Sight' in Theory and Practice," *Achademia Leonardi Vinci* (1992): 153-162.

Vecce:

- Ernst H. Gombrich, "The Trattato della Pittura. Some Questions and Desiderata", in *Leonardo e l'eta' della ragione*, ed. Enrico Bellone and Paolo Rossi, Milan: 1982, 141-158
- Carlo Vecce, "Word and Image in Leonardo's Writings", in *Leonardo da Vinci Master Draftsman*, New York: The Metropolitan Museum of Art 2003, pp. 59-77

WEEK 2 - Painting and Drawing

Natali

- *Leonardo da Vinci: Studio per l'Adorazione dei Magi*, Rome: Argos, 2006 (in English).

Nova:

- Ernst H. Gombrich, "The Form and Movement in Water and Air", in *Leonardo's Legacy: An International Symposium*, edited by C.D. O'Malley, Berkeley, 1969, 171-204
- Alessandro Nova, *The Book on the Wind*, 2011, chapter on Leonardo

Frosinini:

- Bruno Mottin, Jean-Pierre Mohen, Michael Menu, *Mona Lisa: Inside the Painting*, New York, Abrams, 2006, selected pages on the technical analysis
- Larry Keith, Restoring the Virgin of the Rocks, *The National Gallery Technical Bulletin*, London, September 2011 (forthcoming)

Faietti:

- David Rosand, *Drawing Acts. Studies in Graphic Expression and Representation*, Cambridge U.P.: Cambridge and New York, 2002, chapter on Leonardo
- *Fra Angelico to Leonardo*. exh. cat., eds. Hugo Chapman and Marzia Faietti, London: British Museum, 2010, selected pages on Verrocchio and Leonardo

Nelson:

- “The Battle of the Female Nudes: Leonardo vs. Michelangelo (and Titian),” in Michiaki Koshikawa ed., *L’arte erotica del Rinascimento*, Tokyo: 2008, pp. 19-28

Marani:

- *The Last Supper and Santa Maria delle Grazie*. Translated by Margaret Kunzle. Milan: Edizioni Electa 1986 (with Roberto Cecchi and Germano Mulazzani), selected pages on the restoration
- Leo Steinberg, *Leonardo’s Incessant Last Supper*, New York, 2001, selected pages

WEEK 3 – Craftsmen and Scholars

Galluzzi:

- Paolo Galluzzi, “The Career of a Technologist”, in *Leonardo da Vinci Engineer and Architect*, The Montreal Museum of Fine Arts, 1987, 41-109
- Frank Fehrenbach, “The Pathos of Function: Leonardo’s Technical Drawings”, in *Instruments in Art and Science*, ed. H. Schramm, Berlin: 2008, pp. 78-105

Dupré

- Sven Dupré, “Optics, Pictures and Evidence: Leonardo's Drawings of Mirrors and Machinery”, *Early Science and Medicine* 10 (2005), 211-236
- Sven Dupré, “The Making of Practical Optics: Mathematical Practitioners’ Appropriation of Optical Knowledge between Theory and Practice.” In *Mathematical Practitioners and the Transformation of Natural Knowledge in Early Modern Europe*, ed. Lesley Cormack, Chicago: University of Chicago Press, forthcoming.

Laurenza:

- Martin Kemp, “Dissection and Divinity in Leonardo's Late Anatomies,” *Journal of the Warburg and Courtauld Institutes* 35 (1972): 200-25
- Monica Azzolini, “Leonardo da Vinci’s Anatomical Studies in Milan: A Re-examination of Sites and Sources”, in *Visualizing Medieval Medicine and Natural History, 1200-1550*, eds. Jean A. Givens, Karen Reeds, Alain Touwaide, Ashgate, 2006, 147-176

Fehrenbach

- John Shearman, “Leonardo’s Color and Chiaroscuro,” in *Zeitschrift fur Kunstgeschichte* 25 (1962): 13-47
- Francesca Fiorani, “The Colors of Leonardo’s Shadows,” in *The International Society of the Arts, Sciences and Technologies* 41, vol. 3 (2008): 271-278