



NATIONAL ENDOWMENT FOR THE

Humanities

DIVISION OF PRESERVATION AND ACCESS

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 Preservation and Access Programs application guidelines at <http://www.neh.gov/grants/guidelines/HCRR.html> for instructions. Applicants are also strongly encouraged to consult with the NEH Division of Preservation and Access 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: Digitizing Deteriorating Images of Works of Art Photographed in American Collections

Institution: Frick Collection

Project Director: Inge Reist

Grant Program: Preservation and Access Humanities Collections and Reference Resources

PROJECT NARRATIVE

SIGNIFICANCE

About the Frick Art Reference Library's Photoarchive

From the moment the Frick Art Reference Library was established, in 1920, the institution's primary goal has been to avail a broad, intellectually sophisticated public of the text and image resources needed for serious research on art. To do so, the Library has not only acquired conventional, bibliographic research materials (i.e., books, catalogs, auction catalogs), but has also taken a proactive stance to build unique research collections, most notably its Photoarchive. This collection of more than one million images of works of art from the fourth to the mid-twentieth century is widely regarded today as the most comprehensive image archive in the United States for the study of the fine arts in the Western tradition. Equally innovative is the means the Library developed for classifying and cataloging these images so that they can be easily retrieved and meaningfully browsed. Thus, researchers who use both the photographic and bibliographic resources of the Frick Art Reference Library are able to document individual works of art with unparalleled accuracy and completeness.

The majority of the images in the Photoarchive were acquired or purchased from domestic and foreign photographers and museums, often through the agency of scholars and other art professionals (Mme Clothilde Misme-Brière in Paris and José Gudiol in Barcelona, for example). The Library also received gifts of images from scholars and dealers in Europe and the United States. Complementing the images acquired from outside sources are the approximately 57,000 negatives that resulted from Library-sponsored photography campaigns carried out between 1922 and 1967 in the United States, England, and Italy. The cataloging data that describes the works of art includes information about the collection history, former attributions, exhibition record, condition history, and portrait sitters. The documentation, gathered as much from owners' oral histories and scholars' opinions as from conventional published sources, offers valuable primary source material, which the Library continues to update. The images, together with the historical information about the works of art, provide rich documentation not available elsewhere for research in the humanities and social sciences. This is especially true of images from the Library's own negative collection (see Significance of the Library Negative Collection and Significance of the Negatives Selected for this Project).

All of the items in the Photoarchive are organized into more than 38,000 artists' files, each of which is recorded in a collection-level record in the Frick's online catalog FRESCO. To the researcher browsing these files, the discovery of unique visual and written documentation in the Photoarchive may seem serendipitous, but it is, in fact, the result of deliberate policies established by the Library early on and still adhered to today. For example, it is understood that the Library will eagerly acquire multiple images of the same work of art. Thus, changes in the condition of the work become obvious even to the casual researcher: witness the three states of Jan Gossaert's *Holy Family* now in the Museum of Fine Arts, Houston or the record of a full-length portrait of *Alexander Lindsay of Pinkieburn* by Henry Raeburn before it was reduced to a still-attractive three-quarter-length image (appendix 4).

Similarly, the Library incorporates in an artist's file works that are definitely not *by* that artist, but are copies, imitations, even forgeries. Thus, one researcher can browse Caravaggesque works and thereby make meaningful comparisons with works by the master, while another can pore over the dozens of copies made after Hans Holbein's renowned portrait of *Sir Thomas More* in The Frick Collection. In

the case of the Holbein, the most beautiful copy is Rubens's canvas in the Prado, but the vast majority of the copies still reside in British country houses, where both subject and image resonate with special historic import (appendix 5).

Access to preparatory drawings for works such as Degas's *The Rehearsal* in the Musée du Louvre is another benefit researchers derive from the Library's systematic accumulation of these rarely published works (appendix 6).

Finally, ensuring that researchers can have access to images of damaged or destroyed works of art has been an objective for the Library even before cataclysmic events such as the Spanish Civil War and World War II wreaked unprecedented havoc on Western art. Francisco Ribalta's glorious altarpiece from Algemesi, near Valencia, was destroyed, but for a handful of panels, only six months after the Library received a photograph of the entire *retablo* in 1936. Similarly, a portrait by John Zoffany of the Drummond Family at Cadland can still be studied at the Frick, even though the picture itself was destroyed during the London Blitz (appendix 7).

Significance of the Library Negative Collection

By far the most valued component of the Photoarchive is its unique negative collection. To assemble the collection, the Library sponsored photographic expeditions throughout the United States as well as in Europe to document works of art not previously photographed, gaining entry to collections few researchers had any hope of seeing. The 57,000 large-format negatives that comprise this collection are, for the most part, unique visual records of lesser-known and previously unpublished works of art. The Library holds copyright for all of these negatives.

The Library's negative collection can be divided into three major sections: the A.C. Cooper negatives, the Mario Sansoni negatives, and the negatives produced during the American photography campaigns. The A.C. Cooper negatives (9,037) were purchased from the photographer in 1935 and include images of works of art seen at London auctions. The Mario Sansoni negatives (8,129) were commissioned from the Florentine photographer before and after World War II to document paintings, frescoes, and sculpture in remote towns throughout Italy. Both the Cooper and Sansoni negatives have already been digitized and are now available to subscribers of ARTstor.

The third and most substantial section of the collection is composed of negatives from the American campaigns. Between 1922 and 1967, Frick staff photographers conducted field trips to document works of art, primarily early American portraits, in American collections. Paintings were photographed in hundreds of private homes and small public institutions in Alabama, California, Connecticut, Delaware, Georgia, Illinois, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, and Washington, DC. Local contacts helped the Library identify collections and arrange introductions. Local newspapers posted notices about the trips. The first expedition to Richmond, Virginia, for example, was described in the *Washington Post*, July 9, 1922: "William McKillop, a photographer of New York, who has just finished the work of photographing original colonial portraits in the Virginia State library here for ... Miss Helen C. Frick, ... announced today that Miss Frick is having photographic reproductions made of every available colonial portrait in the United States, all of which will be placed in her collection in New York." The Library gave owners complimentary photographs from the negatives and often further information about the artist and the work of art. As noted in the *Mobile Press Register*, February 7, 1954, "owners of this art could add to their own knowledge about their paintings by having pictures of them on file with Frick" (appendix 8).

Staff photographers also recorded works of art in New York City collections, conservation studios, art galleries, and auction houses, as well as paintings and drawings that owners brought to the Library to be photographed. In some cases the owners were descendants of the portrait subjects who provided unpublished information about the artists, sitters, and the provenance of the paintings. Photoarchive staff continues to update that primary source material with new attribution, exhibition, condition, and collection history taken from bibliographic sources and scholars' opinions. These images, most of which are not reproduced elsewhere, as well as the accompanying documentation, constitute a vital research tool for the study of American art history, American genealogy, and the history of collecting in the United States. In 2009, the National Endowment for the Humanities awarded the Library a two-year grant to fund the digitization of an initial 15,000 negatives from the American photography expeditions. This proposed project to catalog and digitize the last 15,000 negatives in the collection will complete the digital reformatting of this collection.

Access to the Library Negative Collection

The Frick Art Reference Library, located in New York City, is open to the public, free of charge, six days per week—Monday through Friday from 10 am to 5 pm and Saturday from 9:30 am to 1 pm—for a total of 38.5 hours per week. Any adult or college student with a serious interest in art can receive a library card by showing valid identification; no academic affiliation is required. The Library receives annually between 5,500 and 6,000 visits from scholars, art professionals, and students, and attendance has grown steadily over the last ten years. In 2009, more than 800 new researchers registered to use the Library. Staff members answer approximately 1,400 telephone and written requests for information annually and the website received approximately 2,000,000 visits last year. As a member of the interlibrary loan “SHARES” program, the Frick Library lends its books and supplies photocopies of its research materials. Photocopying services are available on site to users, as are prints from Library negatives.

As an independent research library, the Frick Art Reference Library serves as a principal resource for professors and students affiliated with all of the major degree-granting institutions in the fields of art history, theory, and criticism of the fine arts, as well as cultural studies. In addition, the Library is used by independent scholars, researchers, museum staff members, specialists in preservation and conservation, private collectors, dealers and experts engaged in the commerce of art, publishers, and other professionals and practitioners of the visual arts. The Library also attracts many researchers from fields in the humanities and social sciences, especially those who embrace an interdisciplinary approach to their research.

Library patrons currently access study photographs, including those made from the Library negatives, through a card catalog, which is indexed by artist, repository, portrait subject, and former attributions. The Library's image collections do not circulate, but researchers can order prints from the negatives for study or publication. Since 2007, users have had access to a selection of digital images from the Library's negative collection, including the A.C. Cooper and Mario Sansoni negatives, through a subscription to ARTstor. In March 2011, the Frick will launch a web interface for accessing all of the digitized Library negatives.

The digitization of the negatives from Cooper, Sansoni, and other sources and their contribution to ARTstor in 2007 has dramatically improved access to those sections of the collection. Usage statistics provided by ARTstor indicate that the 18,881 images available online in 2008 were requested 61,948 times that year; in 2009, with 24,880 images online, the Frick digital negatives were requested 101,446

times (appendices 9 and 10). The volume and steady increase in requests in such a short period speaks to the demand for these materials and demonstrates how making them available online significantly improves the possibility of their discovery and use by a larger and more diverse research audience.

The response from the public has been overwhelmingly positive. Increasingly, new users who are just discovering the negative collection through ARTstor are contacting the Library by email and in person with reference requests. For example, one researcher informed staff that, through ARTstor, she was delighted to discover a Library negative of an image of an 18th century portrait of a Mexican viceroy photographed at a 1928 London sale that was previously unknown in the scholarship in her field.

Use of the Library Negative Collection

Art historians who have consulted the Frick Art Reference Library's photographic archive and have used images from the negative collection over the years include Pierre Rosenberg, then Chief Curator of the Louvre, who consulted the Library's Fragonard images before finalizing the manuscript for his major exhibition catalog on the artist; Federico Zeri, cataloger of the Italian paintings at The Metropolitan Museum of Art, Walters Art Gallery, and other important museum collections of the United States; and Everett Fahy, Chairman of the European Paintings Department at The Metropolitan Museum of Art. More recently, the negatives have served to complement and augment important research by Ellen G. Miles (for her study on the artist Charles Balthazar Julien Févret de Saint-Mémin); Miklós Boskovits (for his contributions to the ongoing and essential *Corpus of Florentine Painting*); Filippo Todini (for his *La Pittura umbra dal duecento al primo cinquecento*); and Julie Aronson and Marjorie E. Wieseman (for the Cincinnati Art Museum 2006 exhibition catalog *Perfect Likeness: European and American Portrait Miniatures from the Cincinnati Art Museum*).

The Library negatives have been especially valued for the study of early American art. Early scholars writing on Colonial American painting, including James Thomas Flexner (*First Flowers of Our Wilderness*, 1947) and Waldron Phoenix Belknap (*American Colonial Painting*, 1959), cite the photographs made from the Library negatives as the most significant single source of visual material for their research. Mary C. Black, Curator at the New-York Historical Society, used the Library negatives to identify the work of several early 18th century painters of wealthy New York landowners. These artists, described as "the Hudson Valley patroon painters," include Nehemiah Partridge (1683–1730), John Watson (1685–1768), and Pieter Vanderlyn (ca.1687–1778). The findings were never fully published, because of Black's untimely death in 1992, and the Library files remain the only place where an overview of the work of these artists can be seen and many of Black's unpublished opinions consulted. In 1995, Richard H. Saunders, writing his book on the complete works of John Smibert (1688–1751), used the negatives to authenticate and illustrate several portraits that are now unlocated. In the preface he acknowledged that the Frick Art Reference Library photographic collection was "particularly critical" for his research.

In one example of an institution using the negatives to research its own collection, the Conservation Department of the Museum of Fine Arts, Boston requested a print of the John Singleton Copley portrait, *Mrs. William Coffin (Ann Holmes)*, which had been donated by a private collector. The Library's photograph enabled the conservators and curators to examine the condition of the painting as it appeared in the 1920s and helped them to develop a restoration plan.

Humanities researchers outside of the discipline of art history also consult the photograph collections of the Frick Art Reference Library. Recent examples include a genealogist from Annapolis, looking for portraits of his ancestors; a Philadelphia physician examining a photograph of the Robert Hinckley

painting, *The First Operation Performed under Ether*, for his book about the history of anesthesia; two playwrights writing a play about the Gilded Age searching for period paintings; a historian studying the iconography of musical instruments; and other researchers looking for images of subjects as diverse as historic homes, steel mills, lakes, and apple pies.

The following reprographic requests exemplify how patrons are using the Library negatives today:

- The Curator of European Paintings, North Carolina Museum of Art, Raleigh visited the Library to study and obtain a print of a before-restoration photograph of the museum's Anthony van Dyck, *Madonna and Child with Five Saints*. The Library photographed the painting in 1939 in the collection of Mrs. Chandor Dickenson, New York. He found that some of the collection history that the Library gained from Mrs. Dickenson was unknown to the museum, including the fact that she had inherited it from her great-great-uncle, Thomas Ivers Haring, who brought the painting from Europe in 1809. He now plans to do research on Haring, who appears to be one of the earliest collectors of Flemish art in America.
- The Deputy Director and Curator, Society of the Cincinnati, Anderson House, Washington ordered a photograph of the Charles Willson Peale portrait of Otho Holland Williams (1747–1794), photographed by the Library in 1927 and destroyed by fire in 1977. She had been directed to the Library negatives by colleagues at the National Portrait Gallery, Washington and Independence National Historical Park, Philadelphia.
- The Director, Bermuda Archives, Hamilton, Bermuda ordered a print of the portrait miniature of General James Craufurd, Governor of Bermuda from 1794 to 1796, for her research. The miniature was photographed and last recorded in 1933 in the collection of Angelica Livingston, New York.
- A Curator, Petrie Institute of Western Art, Denver Art Museum ordered a print of *Fort Snelling* by Seth Eastman (1808–1875) to publish in the catalog of their 2009 exhibition, *Charles Deas and 1840s America*. The painting was photographed in 1937 in the collection of Gouverneur Kemble, Cold Spring, New York and its current whereabouts is unknown.
- An independent researcher in Oxford, North Carolina ordered four prints of portraits of *William Beekman (1684–1777)* and *Mrs. William Beekman (Catherine DeBrough)*, before and after restoration, as part of his family genealogical research. The paintings were photographed at the Tarrytown Historical Society, Tarrytown, New York in the 1930s.
- A researcher from New River, Arizona studying American naval architect Henry Eckford (1775–1832) sought images and genealogical information about the subject. He found that the Library negatives included portraits of Eckford, his daughter Sarah Eckford Drake, his son-in-law Joseph Rodman Drake, and possibly his wife, Marian Bedell Eckford, as well as documentation about the provenance of the paintings and biographical information about the sitters. He ordered a print of the Henry Inman portrait of Henry Eckford, which was photographed by the Library in 1937 and stolen in 1984 from the collection of Mrs. Charles Carey.

These are merely a few examples of requests made for the negatives, but they indicate the broad national and international interest in these resources and their potential use.

Significance of the Negatives Selected for this Project

The 15,000 negatives selected for this project comprise the second half of the American photography campaigns made between 1922 and 1967 throughout the United States to document works of art in private homes and small public institutions. The first half of this collection is currently being digitized in a two-year project, which began in May 2009, with generous funding from the National Endowment for the Humanities and the Henry Luce Foundation. The Library was particularly honored that the Endowment designated this project as part of its “We the People” initiative to encourage and strengthen the teaching, study, and understanding of American history and culture.

This collection provides valuable material for humanities studies. Many of the images are the only available visual records of works of art that cannot be studied in person. Most document art in private collections that are inaccessible to researchers; in small public collections that have no published catalogs; or the work of artists who are not widely known. Some of the paintings have been destroyed since they were photographed. Others have been stolen or acquired by unidentified collectors and are now lost to the public.

The examples cited below illustrate the significance of the negatives that will be digitized and made available to the public in the proposed project.

Destroyed or Stolen Works of Art

A number of paintings documented by the negatives have been destroyed or stolen since they were photographed. The Library’s negatives and photographs provide rare images of the now-lost works.

- American, early 18th century, *Dr. Samuel Checkley (1695–1769)*. This portrait of the pastor of the New South Church in Boston was photographed in 1925 in the collection of Herbert T. Tiffany, Baltimore, a descendant of the subject. His nephew, C. Wyatt Tiffany, inherited the painting in 1944; later that year, it was stolen from a moving van. The painting was never recovered and this may be the only extant image of the work (appendix 11).
- Gilbert Stuart (1755–1828), *Colonel Joseph Williams (1708–1798)*. This painting descended through the sitter’s family to his great-great-granddaughter, Mrs. William Wallace Lanahan (Eleanor A. Williams), Timonium, Maryland. It was photographed in her collection in 1926 and was destroyed by a fire in her home in 1971.
- Thomas Sully (1783–1872), *Penelope Bentley Ward (Mrs. Allard Belin Flagg) (1826–1859)*. Mrs. E.H. Harriman, New York owned this portrait when it was photographed in 1925. Her son, W. Averell Harriman, Governor of New York from 1955 to 1958, donated it to the Albany Institute of History and Art when he left office, to be hung in the Executive Mansion, the official residence of New York governors. A fire on the night of March 3, 1961 destroyed portions of the building and much of the art collection, including this portrait. In 1992, the great-great-niece of the sitter ordered eight photographs of the now lost painting for her family and also contributed new biographical information about Mr. and Mrs. Flagg and their children.

Unlocated Works of Art

Many of the paintings photographed in private collections have since been sold or have not been documented since the death of the last known owner. The Library’s negatives and cataloging data provide a record of paintings which are otherwise lost to the public. Wider access to these images will likely help locate some of the works of art.

- Thomas Sully (1783–1872), *Estelle Hamilton (Mrs. Frederick B. Van Kleeck) (1847–1915)*. This signed portrait of the sitter, when she was eight years old, was photographed in 1939 in the collection of her son, Frederick B. Van Kleeck, Jr., White Plains, New York. After Mr. Van Kleeck died in 1949, his widow moved to Phoenix, Arizona and the current whereabouts of this picture is unknown.
- Gerard ter Borch the Younger (1617–1681), *Johanna Quadacker Bannier (1640–1672)*. This Dutch portrait was photographed in 1928 in the home of Mr. and Mrs. Alfred W. Erickson, New York. It was sold in their November 1961 estate sale for \$22,000. The painting was reported lost or stolen in July 1966 when the owner shipped his collection from Detroit to New York. It was recovered at some time prior to June 1988, when it was sold in a New York auction for \$478,500. It was offered for sale again in a January 2001 auction, but was not purchased, and its current location is not known.

Works of Art in Small Public Collections

The Library photographed works of art in hundreds of small museums, libraries, historical societies, government buildings, churches, and colleges, documenting public collections that have never been published and are not readily accessible.

- Nicola Marschall (1829–1917), *Bishop Michael Portier (1759–1851)*. The Library photographed four paintings at Spring Hill College, Spring Hill, Alabama in 1954, including this portrait of the first bishop of Mobile and the founder of the college. The artist, who emigrated from Germany to Alabama at age 20, was a prolific portraitist and is also credited with designing the Confederate Army's gray uniform and the original Confederate flag.
- Jacob Eichholtz (1776–1842), *Dr. Richard Maris (As a Child)*. William and Alice Maris Degn purchased the historic Colonial home, "Hope Lodge," in Fort Washington, Pennsylvania in 1922 and bequeathed it to the Commonwealth of Pennsylvania in the 1950s. This portrait of a young boy holding a bow and arrow was photographed there in the 1920s with three other portraits. Hope Lodge is administered today by the Pennsylvania Historical and Museum Commission. Due to budget cuts, it was closed to the public in November 2009 (appendix 12).

Condition History of Works of Art

Many of the negatives document the condition of works of art before or after damage, alteration, or restoration. These negatives provide unique visual records of how paintings appeared at different points in time. The Library would occasionally photograph paintings a second time, after their restoration, to provide new documentation about the object's history.

- Ezra Ames (1768–1836), *John Kane (1734–1808)* and *Mrs. John Kane (Sybil Kent) (1738–1806)*. These companion portraits were owned by the great-great-granddaughter of the sitters, Cornelia Fitzhugh Conover, New York, when the Library first photographed them in 1931. They subsequently passed to R. Keith Kane and had been restored by the time the Library photographed them again in 1948. The after-restoration negatives have been scanned and the digitization of the earlier before-restoration negatives will complete the Library's historical visual record. The portraits are listed in the Smithsonian's *Inventory of American Paintings and Sculpture*, but not illustrated. As part of this project, the Library will offer the Smithsonian the digital images and documentation about the portrait subjects, condition history, and provenance for all of the works by American artists, including these portraits.

- Sir Henry Raeburn (1756–1823), *Captain Alexander Dirom (1800–1837)*. The Library owns two negatives of this portrait: One was taken when it was offered for sale in 1928 at Sotheby's auction house in London; the second was made in 1929, after the painting had been restored and purchased from a New York dealer by Percy R. Pyne of Roslyn, New York. The painting subsequently changed hands a number of times before Julian Wood Glass, Jr. purchased it in 1980 from Newhouse Galleries, New York. When Mr. Glass died in 1992, he bequeathed his 18th century ancestral home in Winchester, Virginia and a number of paintings, including this portrait, to the Glass-Glen Burnie Foundation. The historic home and art collection became part of the Museum of the Shenandoah Valley, Winchester, Virginia in 2005. The 1928 negative has been digitized and, when the 1929 after-restoration negative is scanned, both digital files will be given to the museum for their curatorial files.

Lesser-Known Works of Art

Many of the Library negatives document works by American artists who are not well-known. Most of these works have never been published.

- Caroline Sherman Marvin (1833–1896), *Home of Dr. Abel Sherman, Built in 1803 in Rutland, New York*. Abel Sherman (c.1751-1834) was a Massachusetts physician who moved to Rutland, New York and became the first sheriff of Jefferson County. This pencil and wash drawing of his home was executed by his great-granddaughter, Caroline Amelia Sherman, who later married David S. Marvin. She is described in an 1894 book, *Our County and Its People: A Memorial Record of St. Lawrence County, New York*, as “an artist of unusual merit” who “possessed the fortunate faculty of faithfully reproducing on canvas the most charming landscape effects.” The Library photographed this picture and three other drawings at the Jefferson County Historical Society, Watertown, New York in 1955.
- John Jefferson (fl.1832), *Sketch of an Indian "Rolla."* This small portrait was pasted into a sketchbook compiled by the American artist, John Neagle (1796–1865), along with many other drawings by other artists. It is inscribed “Rolla / Drawn by John Jefferson Junr. comedian / Presented by D.Edwin 1832.” The entire sketchbook was photographed in 1959 in the collection of John Neagle's great-granddaughter, Mrs. Elber Howe Brodhead, Haverford, Pennsylvania.

Nitrate Negatives At Risk

The Library has identified more than 400 nitrate negatives in storage that record paintings by George Inness, Jr. (1854–1926), son of the more famous painter, George Inness (1825–1894). Both artists were known for their evocative, tonal landscapes. Julia G. Smith Inness, the widow of George Inness, Jr., donated nine annotated photograph albums of her husband's paintings, and the negatives for the photographs, to the Library in 1937. Some of these negatives have spoiled and, because of this deterioration and the volatile nature of nitrate film, the remaining negatives have been placed in cold storage and prioritized for digitization.

The negatives described above are typical examples of the materials targeted for this project which all offer rich, in many cases unique, visual records and historical documentation for humanities research.

Digitization of the First Half of the Negatives from the American Expeditions (2009- 2011)

Digital conversion of the initial 15,000 negatives from the American photography expeditions began in May 2009 and will be completed in April 2011. Production has so far exceeded the monthly goals, with 8,185 negatives cataloged and 8,138 digitized during the first year of the project (appendix 13).

Enhanced Documentation

The ownership and artist attribution for more than 900 paintings and drawings were updated during the first year by systematically checking the works in the Smithsonian's *Inventory of American Paintings and Sculpture*; consulting museum websites and catalogs; and incorporating notes written on photograph mounts by Frick Library researchers and staff in earlier years. In several cases, owners were contacted when questions arose about the current location of works of art. For example, the Library sent digital images and cataloging data for five portraits to the Huguenot Historical Society in New Paltz, New York. The curator confirmed that four of the portraits, which the Library photographed in 1955 in the home of Mrs. Albert S. Morrow of Cornwall, New York, had been donated to the society in 1978. She said that the Frick information was particularly timely because the two portraits of Mrs. Morrow's grandparents, painted by Asher B. Durand, will be in their 2010 summer exhibition. She provided tentative sitter identifications for the two other portraits and expressed great enthusiasm for the resource-sharing possibilities inherent in this project, especially for smaller institutions.

Lost Images

Digital files were created for 3,571 negatives which had deteriorated beyond the point where they could be digitized during the first year of the project. The first-generation photographic prints originally produced from these negatives were scanned as surrogates to preserve the images. Many of the photographs are more than eighty years old and show signs of damage from silver image mirroring and paper deterioration. One severely damaged photograph, printed from a negative that was made in 1924 at a New York gallery and spoiled in 1995, was recently discovered in the files. The extremely brittle support has broken into numerous pieces and it cannot be handled without risk of further breaks. The Frick Library Conservation Department is conserving the print now. After the treatment is completed, the conserved photograph will be scanned and a print will be made from the digital file for the photoarchive (appendix 14).

While retrieving the photographs, it was discovered that prints had never been made from 322 other negatives which have since spoiled. Unfortunately, with no photographs available and the negatives spoiled, these images now are most likely lost.

It is expected that the cataloging and digitization of the second half of the American photography campaign collection in the proposed project will yield many similar discoveries.

HISTORY, SCOPE, AND DURATION

Condition of the Materials

Fifteen thousand black and white negatives have been targeted for this project. All have been inventoried and inspected. Most are 8 x 10 inch acetate, including both cellulose diacetate and mixed esters of cellulose film supports, and more than 400 are nitrate. These negatives, originally housed in acidic Kraft paper envelopes that accelerated their deterioration, have been cleaned, re-housed in acid-free four flap envelopes, sealed in acid-free boxes, and transferred to the Library's cold storage facility to slow down the chemical degradation. All show signs of deterioration, including elevated levels of off-gassing acetic acid, and some show bubbling of the emulsion layer, shrinking of the sub-layer, and channeling of the emulsion (appendix 15).

Past Negative Duplication and Digitization Projects

In 1990, a formal survey of the Library's negative collection was undertaken by Professor Debbie Hess Norris, conservator of photographic materials and assistant director of the art conservation program at the University of Delaware and Winterthur Museum. This survey revealed that a significant number of the film-based negatives were in an advanced state of deterioration, with deterioration rapidly accelerating, and that the storage of the glass, nitrate, and acetate negatives in the same cabinets was contributing further to their degradation.

In 1991, Don Swanson, Chief, Collections Preservation, initiated an active program to segregate glass, acetate, and nitrate negatives, and to duplicate all nitrate negatives and acetate negatives in areas of the collection that had suffered deterioration. Through grant-funded projects undertaken between 1992 and 1999, more than 20,000 negatives were duplicated as full-size interpositives from which new, stable negatives were produced. In 1992, the Library received an award of \$25,000 from the New York State Program for the Conservation and Preservation of Library Research Materials to begin to duplicate and re-house unique nitrate negatives made by A.C. Cooper. In 1993, the National Endowment for the Humanities awarded the Library a grant of \$112,500 to duplicate the remaining 6,134 A.C. Cooper nitrate negatives. Between 1994 and 1998, the New York State Program for the Conservation and Preservation of Library Research Materials awarded the Library grants totaling \$100,000 to duplicate 5,986 unique nitrate and acetate negatives. In 1996, the Library received a grant from the National Endowment for the Humanities for \$74,000 to duplicate 3,363 spoiling negatives.

Because of technological changes, film duplication of the negative collection is no longer a sustainable option. In 1999, it was determined that digitization of the negatives would allow for greater access to the material and would permit the long-term preservation of the original films in cold storage. In 2000, the Helen Clay Frick Foundation funded a Digital Imaging Laboratory within the Library's Conservation Department. The Library was given the responsibility of preserving the glass, nitrate, and acetate negatives in that collection. To date, more than 8,600 negatives related to the family's historic archives have been scanned and frozen. In 2003, the Library received a four-year grant for \$100,000 from the Carl and Lily Pforzheimer Foundation to catalog, digitize, and freeze 6,116 deteriorating acetate negatives (4,663 of these were subsequently contributed to ARTstor). In 2004, the Library began a project funded by ARTstor to digitize and contribute 25,185 high-quality digital images of fragile glass plate, acetate, and polyester negatives.

In May 2009, the Library began a two-year project, with funding from the National Endowment for the Humanities and the Henry Luce Foundation, to digitize the first 15,000 negatives from the American photography expeditions and develop a web-based interface. The project will be completed in April 2011 and all of the digitized images will be made available online.

Storage of Original Negatives

In 2001, the institution invested in a walk-in cold storage facility to house the negatives and slow their chemical deterioration. Constructed in the Library, the 900 cubic foot freezer maintains an internal temperature of between 5 and 15 degrees Fahrenheit. It is equipped with an alarm to alert security and engineers of equipment malfunctions. Frick Collection security and engineering staff are available on the premises 24 hours a day, 365 days a year. Shelving provides for approximately 240 linear feet of storage, with room for expansion.

In preparation for cold storage, each 8 x 10 inch negative was cleaned and housed individually in an acid-free four-flap envelope. These were packed in acid-free boxes lined with blotting paper, 100 per box, and labeled. The boxes are double-sealed in polyethylene bags to protect them from condensation. Humidity indicator strips are attached to the outside of each box to monitor moisture levels.

METHODOLOGY AND STANDARDS

Digitization and File Management

The Frick Art Reference Library has the experience and the technical infrastructure in place to capture, describe, and archive high quality digital images on site. For this project, the staff of the Digital Lab will scan 15,000 content-rich and at-risk items from the Library's collection. The majority of the images are in the form of 8 x 10 inch black and white acetate film negatives, with a significant number of nitrate film negatives (more than 400). The lab uses both an Eversmart Select II flatbed scanner and an IQSmart3 flatbed scanner with oXYgen scanning software with client machines running the latest Apple Operating System. Captured images are edited using Adobe Photoshop CS5 software and tagged with metadata in Adobe Bridge. The resulting digital master files (or TIFFs) are scanned at 16-bit depth and are 900 dpi or higher (approximately 9,000 pixels on the long side) for 8 x 10 inch originals and 1200 dpi or higher for 4 x 5 inch originals.

The Library will continue to evaluate these standards against advances in best practices for image digitization and preservation. The file size offered here was established for contributions to ARTstor and other negatives scanning projects (including the Frick Collection negatives and the Helen Clay Frick Foundation Archives negatives) and provides a suitable digital surrogate for the original film negatives. The digital lab's scanning specifications, metadata, and quality control procedures conform to the standards outlined by the National Archives and Records Administration (NARA) Technical Guidelines for Digitizing Archival Materials for Electronic Access and California Digital Library (CDL) Guidelines for Digital Images. See:

<http://www.archives.gov/preservation/technical/guidelines.pdf> and
http://www.cdlib.org/services/dsc/tools/docs/cdl_gdi_v2.pdf.

Both groups of TIFF master files (named "RAW" and "POST") are uploaded in batches into the Xinet Digital Asset Management System (DAMS). The application is a MySQL image management database with a web client running on a Mac OSX server that provides the front-end to the scalable file storage system. The system logs all transactions, provides unlimited customizable metadata fields, and allows for image workflow automation. The images are grouped, evaluated for quality, and then approved and moved to the published directories. The customized fields in the DAMS database store thumbnails and FPO (for placement only) derivatives for all the master files, together with all of the digital file metadata found in the TIFF image header. These fields include File Name, File Format, File Size, Image Capture Date, Equipment Model, Color Mode, Gamma Adjustment, Pixel Array, Spatial Resolution, Photoshop History, and all Source and Rights Information entered in Photoshop XMP templates. The project metadata set and the cataloging metadata set imported from the Photoarchive's image catalog are also stored in the DAMS.

Project and Cataloging Metadata

In addition to the digital file metadata that is collected from the scanning and editing programs and stored in the image header of the TIFF files, the digital lab will also record project-specific metadata.

The project metadata is entered by staff as part of their image creation workflow in the Digital Asset Management System and includes the following fields: Image Unique ID Number, Source, Photographer Name, Photography Date, Negative Material, Negative Dimensions, Negative Condition, Negative Location, Image Capture Date, Scanner or Camera Model, Image Editing Software Version, QC Comments, Image Approval Date, Image Approver, Image Backup Medium, Hard Drive Number, and Image Delivery Date.

The cataloging metadata describing the works of art, now recorded on index cards and photograph mounts, will be keyed into the photoarchive database. The Photoarchive first established its database in 1989. With funding from the Henry Luce Foundation in 1996, the data structure was further developed in accordance with emerging standards, including the Categories for the Description of Works of Art and the Visual Resources Association (VRA) Core, version 1.0.

The current metadata structure is fully compliant with the VRA Core 4.0 data standard, released in 2007 and officially endorsed by the Metadata Encoding and Transmission Standard (METS) editorial board. The database used by the department generates VRA Core 4.0 XML output, which will facilitate data sharing (appendix 16). The fields include information about the work of art and the original reproduction. The work of art fields include (but are not limited to): Artist Information (matched against local, Library of Congress Name Authorities, and Union List of Artist Names authorities), Object Collection and Provenance Information (matched against Library of Congress Name Authorities and Thesaurus of Geographic Names), Object Materials and Dimensions (matched against Art and Architecture Thesaurus), and Subject Headings (matched against local and standard vocabularies). The reproduction fields include: Photographer Information (local and Library of Congress Name Authorities vocabularies), Photography Date, Photography Type (locally-controlled vocabulary), Rights Information, Image Description (locally-controlled vocabulary), and Image Materials and Dimensions (matched against Art and Architecture Thesaurus). The decision to continue to apply these metadata standards is based on previous digital project experience and is in accordance with best practices in the visual resources community.

Web Interface for Digital Negatives

The Library is currently developing a custom web interface built on the WebNative Portal platform to provide free public access to the entire digital negative collection online. WebNative Portal is a web-hosting front-end to the Xinet Digital Asset Management System installed on a web proxy server to allow a secure public point of entry to the institution's image collections. The image database is searchable by a number of VRA Core 4.0-compliant metadata fields including: Artist Name, School, Title, Work Provenance Information, and Subject Headings. The website is scheduled for launch in March 2011. As images and their metadata are uploaded to the database, they will be made available to the public (appendix 17).

Storage, Maintenance, and Protection of Data

The master TIFF image files are stored on a scalable Falconstor IPstor Network Storage Server which provides daily snap backups and file verification and complete tape backups weekly. The daily tapes are stored in a fire-proof cabinet in the server room and the weekly backups are stored in a bank vault offsite. The Information Systems Department reserves 2 TB of storage space for disaster-recovery; volume recovery fire-drills are executed quarterly. The digital lab also maintains its own library of copies on LaCie external hard drives for its own second backup copies. The hard drives are stored in a vault in an adjacent building and tested regularly. The institution has invested in annual out-of-state

backup tape storage at the Net Access Corporation's remote storage facility in Cedar Knolls, New Jersey, for additional long-term protection of these valuable digital assets.

The project metadata will be entered in the image file headers with Adobe Bridge software and uploaded to the DAMS with the images. The Xinet DAMS MySQL database allows for easy export of all text metadata for future migration. Some of the project metadata can also be written back to the TIFF image header so that this information can be stored permanently with the image. The cataloging metadata is maintained by the Photoarchive in a database that exports VRA Core 4.0 XML output as well as output other data formats (.tab and .csv). Updated data will be transferred periodically into the DAMS. These fields can also easily be mapped to other standards (such as Dublin Core) for future projects. The database is backed up with the rest of the servers nightly with complete tape backups weekly. These tapes are stored in a fire-proof cabinet in the server room and the weekly backups are stored in a bank vault off-site in New York.

In order to ensure the long-term viability of digital assets, the institution has already invested in the network infrastructure and storage required to establish and sustain the image presentation system, including the DAMS, web portal, and image servers, and is committed to supporting its continued development. In addition to the digital images created for the negative collection, the institution has a capital plan in place to support and maintain image collections for the Frick Collection objects, exhibitions, and archives, and the Helen Clay Frick Foundation Archives.

Preservation and sustainability also depend on the ability to foresee the need to migrate data from one software system to another. Adherence to the highest digital file and metadata creation standards will allow for maximum flexibility in the future. These provisions for future portability, continued contributions to ARTstor, and new collaborations with other online content aggregators will ensure the longevity and enhance the discoverability of this important digital negative collection.

WORK PLAN

Based on the work completed so far for the project to digitize the first 15,000 negatives, the Frick Art Reference Library estimates that it will take two years to complete the work outlined in this proposal. The Library will maintain current project staffing which includes two Digital Photoarchive Assistants and two Digital Lab Technicians hired for the digitization of the first 15,000 negatives. All salaries in the budget are based on the Library's pay scale for comparable positions. Staff members will perform the tasks outlined below. A Gantt chart for the project is included in appendix 18.

Project Year One

- *Retrieving and Barcoding.* Retrieve and barcode 7,500 photograph mounts that document at-risk negatives. This task will be overseen by the Digital Photoarchive Coordinator and performed by the coordinator and two Digital Photoarchive Assistants. (625 per month)
- *Conversion of Documentation.* Enter descriptive cataloging metadata from photograph mounts and index cards that document 7,500 negatives into photoarchive database. Establish authority records for artists, portrait subjects, and public collections as needed. Check the works of art in museum catalogs and online resources to update artist attribution and ownership information as needed. This task will be overseen by the Digital Photoarchive Coordinator and performed by the coordinator and two Digital Photoarchive Assistants. (625 per month)

- *Metadata Quality Control Checking.* Review all authority records and cataloging metadata records for accuracy. This task will be performed by the Digital Photoarchive Coordinator.
- *Metadata Upload.* Transfer descriptive cataloging metadata from photoarchive database into digital asset management system. This task will be performed by the Database Administrator with the Digital Photoarchive Coordinator. (every four months)
- *Scanning.* Prepare frozen films for scanning. Scan 7,500 at-risk negatives. Create and verify POST images from RAW scans. Upload files to image server. Capture project metadata in the digital asset management system. This task will be overseen by the Digital Lab Project Manager and performed by the coordinator and two Digital Lab Technicians. (625 per month)
- *Image File Approval.* Examine all digital scans for quality. Ensure that file size, bit depth, resolution, and image format are to project digitization standards and that the images have no debris or artifacts. Approve batches of POST files for publication. This task will be overseen by the Digital Lab Project Manager and performed by the coordinator and two Digital Lab Technicians. (625 per month)
- *Return Negatives to Freezer.* After scanning and image approval, pack negatives in boxes, and transfer once again to cold storage facility. This task will be overseen by the Digital Lab Project Manager and performed by the coordinator and two Digital Lab Technicians.

Project Year Two

- *Retrieving and Barcoding.* Retrieve and barcode 7,500 photograph mounts that document at-risk negatives. This task will be overseen by the Digital Photoarchive Coordinator and performed by the coordinator and two Digital Photoarchive Assistants. (625 per month)
- *Conversion of Documentation.* Enter descriptive cataloging metadata from photograph mounts and index cards that document 7,500 negatives into photoarchive database. Establish authority records for artists, portrait subjects, and public collections as needed. Check the works of art in museum catalogs and online resources to update artist attribution and ownership information as needed. This task will be overseen by the Digital Photoarchive Coordinator and performed by the coordinator and two Digital Photoarchive Assistants. (625 per month)
- *Metadata Quality Control Checking.* Review all authority records and cataloging metadata records for accuracy. This task will be performed by the Digital Photoarchive Coordinator.
- *Metadata Upload.* Transfer descriptive cataloging metadata from photoarchive database into digital asset management system. This task will be performed by the Database Administrator with the Digital Photoarchive Coordinator. (every four months)
- *Scanning.* Prepare frozen films for scanning. Scan 7,500 at-risk negatives. Create and verify POST images from RAW scans. Upload files to image server. Capture project metadata in the digital asset management system. This task will be overseen by the Digital Lab Project Manager and performed by the coordinator and two Digital Lab Technicians. (625 per month)
- *Image File Approval.* Examine all digital scans for quality. Ensure that file size, bit depth, resolution, and image format are to project digitization standards and that the images have no debris or artifacts. Approve batches of POST files for publication. This task will be overseen by the Digital Lab Project Manager and performed by the coordinator and two Digital Lab Technicians. (625 per month)
- *Return Negatives to Freezer.* After scanning and image approval, pack negatives in boxes, and transfer once again to cold storage facility. This task will be overseen by the Digital Lab Project Manager and performed by the coordinator and two Digital Lab Technicians.

STAFF

Core Project Team

Inge Reist, Chief of Research Collections and Programs and Director of the Center for the History of Collecting in America, will be the project director. Educated at Connecticut College and Columbia University, earning her Ph.D. in Art History in 1984, Inge has worked at The Frick Collection and Art Reference Library for 29 years. The depth and breadth of Inge's knowledge of art in the Western tradition enables her to understand the goals and expectations of researchers and led to her expanded role as the Director of the Center for the History of Collecting in America. She has considerable experience in directing large-scale, multi-year projects for research and digital reformatting of text and image collections. Projects she has managed include the Library's six-year "Spanish Project," which resulted in the publication of *Spanish Artists from the Fourth to the Twentieth Century: A Critical Dictionary*, and the digitization of more than 25,000 negatives. Inge will oversee the cataloging and coordinate the project with the Digital Lab.

Luciano Johnson, Digital Lab Project Manager, oversees the production schedule and manages the digital files created for the project. Luciano holds a MSILS from Pratt Institute (2008) where he focused on library management, digital archives/libraries, and cultural informatics design. He has previous experience in the Frick Art Reference Library Conservation Lab and the Digital Lab as a photographer. Recent experience with digital initiatives includes the selection and implementation of the Digital Asset Management System, the ARTstor Project (2006–2007), the Pforzheimer Project (2006–2007), the NEH-funded *Digitization of Deteriorating Photographs of American Paintings* (2009–2011), as well as image creation and management for the Henry Clay Frick Foundation archives. He is responsible for supervising the Digital Lab Technicians and managing the day-to-day operations of the Digital Lab including quality control and workflow. He also coordinates with the Project Director and the Digital Photoarchive Coordinator for metadata contributions.

Anastasia Levadas, Digital Photoarchive Coordinator, oversees the electronic conversion of the cataloging metadata describing the images. She supervises the two Digital Photoarchive Assistants hired for the NEH-funded project, *Digitization of Deteriorating Photographs of American Paintings* (2009–2011), and is responsible for establishing production goals, ensuring the consistency and quality of the cataloging records, and creating authority records for new artists, public collections, and portrait subjects. She will continue to coordinate with the Digital Lab Project Manager and the Database Administrator for metadata contributions every four months and report to the Project Director. Anastasia received her MLS from the University of South Florida in May 2007. Before joining the Frick Library staff, she was the Metadata Librarian at the Granger Collection (2007–2008), where she was responsible for helping to develop metadata standards and implementing authority control for their digital image collection. She brings her considerable experience with best practices in digital image cataloging as well as her knowledge of VRA Core, MARC, and standard vocabularies and thesauri.

Julie Shean, Database Administrator, programs the public interface, assists in transferring metadata, and provides for the project's other technical needs. Julie earned her Ph.D. in Art History at New York University and is currently finishing a certification in Open Source Web Programming from O'Reilly School of Technology and the University of Illinois. She manages the Xinet Digital Asset Management System and has designed databases and edited metadata for previous digital initiatives, including a pilot project with Cornell University (1998) the AMICO Library Project (1998–2005), ARTstor Project (2005–2007), and the Pforzheimer Project (2003–2007), the NEH-funded *Digitization of Deteriorating Photographs of American Paintings* (2009–2011).

Support Team

Don Swanson, Chief, Collections Preservation, oversees the Conservation Department and Digital Labs. Don brings extensive project management experience, including those funded by NEH Preservation and Access grants for duplication of negatives in 1993 and 1996 and the current digitization project. Together with the Digital Lab Project Manager, he will ensure that imaging standards for the project are followed and project deliverables are on schedule.

Kerry Sullivan, Head of Photoarchive Records, coordinates the Photoarchive Department cataloging. She oversaw the establishment and development of the photoarchive database, as part of a project funded by the Henry Luce Foundation (1994–1999), and the cataloging for projects funded by the Helen Clay Frick Foundation (2001–2003), Pforzheimer Foundation (2003–2007), ARTstor (2005–2007), and the current NEH-funded project (2009–2011). Together with the Digital Photoarchive Coordinator, she will ensure the consistency and quality of the cataloging and authority records.

Project Staff

Two Digital Lab Technicians hired for the 2009–2011 project will continue to work for this project. They will be responsible for capturing digital master files and derivatives; uploading files to the Xinet DAM; and maintaining digital and reprographic equipment.

Two Digital Photoarchive Assistants hired for the 2009–2011 project will continue to work for this project. They will be responsible for retrieving, barcoding, and refilling mounted photographs related to the project; converting text on index cards and photograph mounts into item-level cataloging records; establishing name authority records for artists, collections, and portrait subjects; and consulting museum catalogs and online resources to update artist attribution and ownership information for the works of art.

The curricula vitae for the Core Project Team, the Support Team, and job descriptions for the Project Staff are included in the appendix. (appendices 19-26)

DISSEMINATION

The Frick Art Reference Library recognizes that the ability to fulfill its mission of preserving these valuable research materials and continuing to make them widely available in the future will depend upon the degree to which the images and documentation can be shared with researchers, educators, and students and combined with like resources world-wide.

The Library is committed to sharing its digital images with the broadest possible audience for free, and will therefore put all of the images, once digitized, onto its website where they will be accessible to anyone at no charge. To that end, the institution has purchased WebNative Portal, a software solution that will allow the images and cataloging metadata stored in the Xinet DAMS to be published on a separate secure Mac OSX web proxy server in customizable PHP public interface. The built-in functionality includes full keyword searching, zooming, and on-the-fly derivative creation and delivery. The customization of the web interface for the library negative collection is currently being carried out by the Library's Database Administrator and is scheduled to launch March 2011. The website will provide free downloads of JPEG derivatives (8-bit grayscale, approx. 8 x 10 inch, 300 dpi) of all images that have already been contributed to ARTStor as well all newly scanned library

negatives. Higher resolution copies of the TIFF master files for publication will be made available to researchers by email request.

All newly digitized images and cataloging metadata will also be added to ARTstor, a digital image library containing more than one million images of works of art that is currently used by 1,255 universities, elementary and high schools, libraries, museums, and research centers internationally. The Library will offer the images and documentation for all works of art by American artists to the online *Inventory of American Paintings and Sculpture* at the Smithsonian American Art Museum, Washington and all American portraits to the *Catalog of American Portraits* at the National Portrait Gallery, Washington. The authority records for the names of the artists researched for this project will be contributed to the *Union List of Artist Names* online structured vocabulary at the Getty Research Institute, Los Angeles.

All of the cataloging records from the local Frick photoarchive database, including those for the Library's digital negatives, will be contributed to the online catalog of the New York Art Resources Consortium (NYARC) in 2011, where they can be accessed by new research audiences. NYARC also will publicize the Frick digital negative collection in the online catalog and on its website. The Frick Art Reference Library is one of the four founding members of NYARC, which also includes the libraries of The Metropolitan Museum of Art, the Museum of Modern Art, and the Brooklyn Museum.

The Frick Collection will publicize the project through a press release and announcements on its website. The institution's monthly newsletter will feature an article on the history of the negative collection and its digital preservation.

The Library is a member of the College Art Association (CAA), the Art Libraries Society (ARLIS), and the Visual Resources Association (VRA), and, with The Frick Collection, the Association of Research Institutes in Art History (ARIAH). Announcements publicizing the digital negative collection will be posted to all of their listservs and project team members will present conference papers at annual meetings describing the content of the digital resource and the project's methodology. In order to reach more targeted audiences, the Library will also send press releases to the listservs of CAA affiliates (including the Association of Historians of American Art and the Southeastern College Art Conference), the American Historical Association, and the American Society of Genealogists.