



Article: Research Themes Explored by the Advanced Residency Program in
Photograph Conservation

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RESEARCH THEMES EXPLORED BY THE ADVANCED RESIDENCY PROGRAM IN PHOTOGRAPH CONSERVATION

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Presented at the 2009 PMG Winter Meeting in Tucson, Arizona

Abstract

The Advanced Residency Program in Photograph Conservation (ARP), a collaborative fellowship program at George Eastman House, International Museum of Photography and Film and the Image Permanence Institute of the Rochester Institute of Technology, provided advanced training and research opportunities to five groups of eight fellows for ten years. Primarily funded by the Andrew W. Mellon Foundation in 1999, this unique and ambitious program concluded in August 2009.

When the program began, it was thought that fellows would come to Rochester to study and hone their conservation skills, much in the way doctors complete their education with medical residencies in hospitals. What happened was, in addition to the advanced, post-graduate training, certain important research themes were established early on. Many of these themes were developed further in subsequent cycles. These research topics included characterization, connoisseurship, negatives, daguerreotypes, and conservation. This article provides an overview of the research themes explored by the fellows in their major research projects.

Introduction

The purpose of this paper is to review the research themes explored by the fellows of the Advanced Residency Program in Photograph Conservation (ARP). The program was located in Rochester, New York because this city was the center of the photography industry in the United States for most of the 20th century. Combined with the remarkable collections of photography at George Eastman House, and the resources of Image Permanence Institute (IPI) at the Rochester Institute of Technology, it is no wonder that this is the place where Angelica Rudenstine of the Andrew W. Mellon Foundation selected to locate the program. Of course, the proven excellence of well known educators Grant Romer in the conservation department of George Eastman House and Jim Reilly at IPI helped to ensure the program's location.

Initially, the purpose of the ARP was not to produce important research for the field of photograph conservation, but rather to provide advanced post graduate school training to conservators wishing to pursue a career in photograph conservation. Similar to a medical residency, eight fellows were selected for each two year cycle from a large pool of applicants. Over the first year of the program they followed a curriculum to catch them up on the core knowledge needed by photograph conservators. This curriculum included courses such as historic process workshops with Mark Osterman, preservation and environmental management courses with Jim Reilly and Jean-Louis Bigourdan at IPI, the chemistry of deterioration with Douglas Nishimura, treatment practicum with conservators at GEH and an introduction to the various instruments available for materials analysis, now taught by Greg Smith at the Art Conservation Program at Buffalo State College. Fellows were encouraged to build their portfolio

and assist the conservator in charge by treating objects from the museum's collection. The second year of the fellowship was devoted to producing a "Capstone Research Project" in order to give each fellow the opportunity to explore his or her own interests in depth. The fellows were not assigned a given topic, but were encouraged to follow their interests and perhaps be inspired by something they discovered in the collection, through a treatment process or through some experience they were exposed to during the delivery of the curriculum. Now that the fifth and final cycle has concluded, it is clear that many fellows were influenced by the research projects of previous cycles. The research projects of the ARP have not only helped fellows with their careers, but also they have provided funding opportunities and inspiration for new directions for the host institutions and have produced important advancements for the field of photograph conservation.

Illustration number one gives the titles of each capstone research project organized chronologically by cycle and alphabetically by the name of fellow in that cycle. By no means does this list represent all of the research produced by the program, but what was considered to be the most important research project produced by a each fellow. Additional research and process intensives can be found in the portfolios of each fellow in the Conservation Library at George Eastman House. All of the research produced by the ARP can be found on-line at www.notesonphotographs.org. Illustration number two categorizes each project into five topics: characterization, connoisseurship, negatives, daguerreotypes and conservation.

Illustration number one

Capstone Research Projects for Five Cycles

First Cycle 1999-2001

Alexandra Botelho

The Durieu Album: Early Nineteenth-Century French Photographic Techniques and Studies of the Nude

Jens Gold

Investigation of Methods Used to Misrepresent the Conditions and the Age of Photographs

Dana Hemmenway

The Making of a Conservation Database for the Photographs of Hill and Adamson at George Eastman House

Kathrine Kilde

The Photographic Activity Test: What Is It and How Is It Useful?

Tania Passafiume

A Silver Gelatin DOP Sample Book and a Characteristic Catalogue of the Edward Weston Collection at George Eastman House

Klaus Pollmeier

Documentation and Characterization of Photographic Surfaces by Edge Reflection Analysis

Second Cycle 2001-2003

Elena Bulat

Conservation Issues of Paper Stereo Transparencies

Juan-juan Chen

Edge Reflection Analysis (ERA): A New Technique for Non-contact Texture Analysis of Glossy Surfaces

Kate Jennings

Research into the Conservation of Paper Negatives

Hanako Murata

Secondary Protective Housing System for Daguerreotypes

Sara Shpargel

Environmental Management through the Climate Notebook®: A Case Study on the Process of Achieving Climate Control at George Eastman House

Fernanda Valverde

Guide for Identification and Preservation of Negative Collections

Third Cycle 2003-2005

Corinne Dune

Care of Rare and Unusual Photographs: A Methodology

Lydia Egunnike

Opalotypes: Their Evolution and Care

Lene Grinde

Conservation of Stereo Daguerreotypes

Pip Morrison

The Effects of Solvents on Silver Dye Bleach Materials

Mariana Planck

Preserving B&W Negatives from Physical Damage: Handling Methods and Enclosure Design

Claire Tragni

Use of Ultraviolet-induced Fluorescence for Examination of Photographs

Ralph Wiegandt

Investigation into Traditional and Modern Daguerreotype Housing Systems from a Conservation Viewpoint

Fourth Cycle 2005-2007

Karina Beeman

A Guide for Establishing a Photograph Conservation Laboratory

Luisa Casella

Establishing a Wiki Resource in Fine Photography Connoisseurship and Conservation

Rosina Herrera

Alfred Stieglitz' Lantern Slides: History, Technique and Technical Analysis

Gustavo Lozano

Nineteenth Century Albums & Photo Books: History, Technology and Conservation

Patrick Ravines

Surface Profilometry: a New Approach and Method in Photograph Conservation

Gawain Weaver

Deterioration of Fiber-base Gelatin Silver Prints

Rachel Wetzel

The History of Light Bleaching Techniques Used in Photograph Conservation and the Examination of the Short-Term and Long-term Effects of Light Bleaching Silver Gelatin Photographs

Katharine Whitman

The History and Conservation of Glass Supported and Protected Photographs

Fifth Cycle 2007-2009

Caroline Barcella

Conservation Project of the Manila Daguerreotypes

Valentina Branchini

The Photographs of Alvin Langdon Coburn at George Eastman House

Mirasol Estrada

A Study in Photograph Conservation Problem Resolution: A Conservation Plan for the "Mexican Suitcase"

Alejandra Mendoza

Current Status of Treatment Practices in Photograph Conservation

Anna Michas

An Introduction to the History, Identification and Collectability of Early Postcard Prints

Hyejung Yum

A Brief History of Early Photographic Paper

Illustration number two

Capstone Research Projects Organized by Topic

Characterization

Documentation and Characterization of Photographic Surfaces by Edge Reflection Analysis – Klaus Pollmeier (2001)

A Silver Gelatin DOP Sample Book and a Characteristic Catalogue of the Edward Weston Collection at George Eastman House – Tania Passafiume (2001)

Edge Reflection Analysis (ERA): A New Technique for Non-contact Texture Analysis of Glossy Surfaces – Juan-juan Chen (2003)

Opalotypes: Their Evolution and Care – Lydia Egunnike (2005)

Use of Ultraviolet-induced Visible Fluorescence for Examination of Photographs – Claire Buzit Tragni (2005)

Deterioration of Fiber-base Gelatin Silver Prints – Gawain Weaver (2007)

A Brief History of Early Photographic Paper – Hyejung Yum (2009)

An Introduction to the History, Identification and Collectability of Early Postcard Prints
– Anna Michas (2009)

Connoisseurship

The Durieu Album: Early Nineteenth-Century French Photographic Techniques and Studies of the Nude – Alejandra Botelho (2001)

Investigation of Methods Used to Misrepresent the Conditions and the Age of Photographs – Jens Gold (2001)

The Making of a Conservation Database for the Photographs of Hill and Adamson at George Eastman House – Dana Hemmenway (2001)

Conservation Issues of Paper Stereo Transparencies - Elena Bulat (2003)

Care of Rare and Unusual Photographs: A Methodology – Corinne Dune (2005)

Alfred Stieglitz' Lantern Slides: History, Technique and Technical Analysis – Rosina Herrera (2007)

Establishing a Wiki Resource in Fine Photography Connoisseurship and Conservation – Luisa Casella (2007)

Nineteenth Century Albums & Photo Books: History, Technology and Conservation – Gustavo Lozano (2007)

The Photographs of Alvin Langdon Coburn at George Eastman House – Valentina Branchini (2009)

Negatives

Guide for Identification and Preservation of Negative Collections – Fernanda Valverde (2003)

Research into the Conservation of Paper Negatives – Kate Jennings (2003)

Preserving B&W Negatives from Physical Damage: Handling Methods and Enclosure Design – Mariana Planck (2005)

The History and Conservation of Glass Supported and Protected Photographs – Katharine Whitman (2007)

A Study in Photograph Conservation Problem Resolution: The Image Duplication and Preservation Proposal of the "Mexican Suitcase" – Mirasol Estrada (2009)

Daguerreotypes

Secondary Protective Housing System for Daguerreotypes – Hanako Murata (2003)

Conservation of Stereo Daguerreotypes – Lene Grinde (2005)

Investigation into Traditional and Modern Daguerreotype Housing Systems from a Conservation Viewpoint – Ralph Wiegandt (2005)

Surface Profilometry: a New Approach and Method in Photograph Conservation – Patrick Ravines (2007)

Conservation Project of the Manila Daguerreotypes – Caroline Barcella (2009)

Conservation

The Photographic Activity Test: What Is It and How Is It Useful? – Kathrine Kilde (2001)

Environmental Management Through the Climate Notebook®: A Case Study on the Process of Achieving Climate Control at George Eastman House – Sara Shpargel (2003)

The Effects of Solvents on Silver Dye Bleach Materials – Pip Morrison (2005)

A Guide for Establishing a Photograph Conservation Laboratory – Karina Beeman (2007)

The History of Light Bleaching Techniques Used in Photograph Conservation and the Examination of the Short-Term and Long-term Effects of Light Bleaching Silver Gelatin Photographs - Rachel Wetzell (2007)

Current Status of Treatment Practices in Photograph Conservation – Alejandra Mendoza (2009)

Characterization

In the mid- 1990's there was a meeting of photo conservators at the Getty Museum where it was determined that the field needed to characterize the materials of photography much in the way that had been done in other conservation disciplines such as paintings or objects. After all, how can we understand the nuances of the materials we treat if we can not agree on definitions and appearances of the wide variety of objects that we call photographs? Characterization develops a formalized approach to look at photographs.

In 2001, during the first cycle of the ARP, two fellows produced projects that advanced the field of characterization. Klaus Pollmeier's project on the *Documentation and Characterization of Photographic Surfaces by Edge Reflection Analysis* and Tania Passafiume's work on *A Silver Gelatin DOP Sample Book and a Characteristic Catalogue of the Edward Weston Collection at George Eastman House* were very fruitful.

In 2003, second cycle fellow Jiuan-jiuan Chen expanded upon an aspect of Klaus' project and explored *Edge Reflection Analysis (ERA): A New Technique for Non-contact Texture Analysis of Glossy Surfaces*. During this time, perhaps inspired by Paul Messier's impressive collection of photographic paper samples, Jim Reilly started acquiring paper sample books produced by the Eastman Kodak Company. In the third cycle of the ARP, Jim encouraged the fellows to work together on a group research project, which characterized the surface of gelatin silver prints produced by Kodak in the 20th century. The fellows developed a system to document the various sheens and textures of the papers, as well as a means to compare paper cross sections from each paper sample. Work on this project continued mainly at IPI during the fourth cycle with Ryan Boatright, resulting in the creation of the Digital Sample Book, an interactive website where the user can compare various types of photographs and print samples side by side. Fourth cycle fellow Gawain Weaver's project on *A Guide to Fiber-Base Gelatin Silver Print Condition and Deterioration* landed him a position with IPI where he worked with Ryan to develop this website further. This website was improved and developed further into Graphics Atlas www.graphicsatlas.org.

Connoisseurship

This was a concept developed and encouraged by Grant Romer, where one combines the skills of the art historian with the knowledge base and analytical tools of the conservator, thereby gaining a deeper understanding of a photographer's work. So, not only does one examine the biography, provenance, exhibition history, significant collections and references for a given photographer, but also notes the key attributes of the photographer: photographic techniques, significant marks, mounting techniques, conservation issues, and subject series. This approach of truly understanding the fine photograph has become such a way of life at George Eastman House, that it is surprising to meet a researcher who can wax rhapsodic about the symbolism and social context of an image, say something about composition and positive and negative space, but can not identify the process or understand how the deterioration mechanism has contributed to its present day appearance. Many fellows in each cycle devoted their capstone project to this deeper understanding, beginning with Alexandra Botelho's work on the Durieu Album, Dana Hemmenway's work with Hill & Adamson, that finally in the fourth cycle, Luisa Casella thought it would be useful if all of these important observations could be collated on a website, based upon a wiki platform, called the George Eastman House Connoisseurship Resource. This project was so well received at the museum that it inspired a successful proposal to IMLS to develop this website further. So for almost two years now, Sheila Foster and Emily Welch have continued to work on this website, encouraging collaborations with and submissions by scholars and collections outside of George Eastman House. This website is now called Notes on Photographs www.notesonphotographs.org.

Negatives

Great advancements were made in the study of photographic negatives in the ARP, beginning with second cycle fellow Kate Jennings' *Research into the Conservation of Paper Negatives*. Kate had observed a trend in museums and galleries to display these negatives as photographic objects and became concerned with their long-term preservation. Also, in the second cycle, Maria Fernanda Valverde was interested in conservation education. She worked closely with IPI staff to produce a beautiful and informative poster and accompanying booklet, *A Guide for Identification and Preservation of Photographic Negatives*. Third cycle fellow Mariana Planck,

who like Fernanda came from Mexico, where they have many thousands of negatives in collections, devoted her research project to *Preserving B&W Negatives from Physical Damage: Handling Methods and Enclosure Design*. Mariana observed and documented hundreds of traditional enclosures before devising her own solution.

Fourth cycle fellow Katharine Whitman went a step further by producing her project, *The History and Conservation of Glass Supported and Protected Photographs*. Kate worked under the supervision of Ralph Wiegandt on the treatment of a seminal historical glass inter-positive image of Abraham Lincoln. Referred to as the Hesler Ayres Interpositive, working on the treatment of this national treasure led Kate to examine the types of glass used in photography. The innovative treatment solution enabled the portrait of Abraham Lincoln to be on exhibit at George Eastman House for bicentennial of Lincoln's date of birth in 2009.

Fifth cycle fellow Mirasol Estrada assisted The International Center of Photography (ICP) with a conservation plan for the long-term preservation and exhibition plan for the so-called Mexican Suitcase, a rediscovered object that contains many tightly wound rolls of 35mm negatives taken of the Spanish civil war by noted photojournalists Robert Capa, Gerda Taro and David "Chim" Seymour. Mirasol worked with Grant Romer and others to design a device that would enable the photographers at ICP to safely unroll the film such that they could be photographed digitally. The device was called the Planar Film Duplicating Device or PFD2, and already there are other photography and film archives that have expressed interest in owning one.

Daguerreotypes

It would be a challenge to study in Rochester with Grant Romer and not learn about daguerreotypes. It is interesting that the field of photograph conservation still does not entirely understand and agree upon treatment regimens and preservation plans for these precious objects created over 150 years ago. In the second cycle, Hanako Murata methodically researched the various historic binding systems for daguerreotypes in her work, *Secondary Protective Systems for Daguerreotypes*. She also researched the efficacy of the commonly used present day binding systems and supports and found that these various systems did not prevent moisture and acidic elements from permeating the package.

The third cycle began when solutions were being developed for the exhibition *Young America: the Daguerreotypes of Southworth & Hawes*. Many innovations were developed for this exhibit including a unique mounting and lighting system. But perhaps the greatest accomplishment was the development of the preservation package, the work of Ralph Wiegandt, who as a third cycle fellow brought his ingenuity and experience as a skilled objects conservator to the discipline of photo conservation. The preservation package did not allow air and pollutants to enter to compromise the daguerreotype plate. Also, a great contribution was made by third cycle fellow Taina Meller who developed a systematic way to monitor the condition of these precious objects as they traveled from each of the three venues of this exhibit.

In the fourth cycle, Patrick Ravines applied 3D surface profilometry techniques to quantify the surface structure of the daguerreotype.

The awareness raised by these ARP research projects concerning the daguerreotypes of Southworth & Hawes enabled some wonderful objects to come to the lab at George Eastman House for treatment. An example is the Cincinnati Waterfront Panorama by Fonteyn & Porter that is owned by the Cincinnati Public Library, but was languishing in remote storage as the object was considered too fragile for display. This object is a truly a national treasure and was put on display at the Crystal Palace Exhibit in London in 1851. The treatment developed and executed by Ralph Wiegandt, who by now had joined the faculty of the ARP, enabled the Cincinnati Public Library to put this marvelous object safely on display. I should mention that Patrick Ravines and many fourth cycle fellows assisted Ralph with this monumental treatment.

Concurrent to the Southworth & Hawes projects, second cycle fellow Elena Bulat performed a survey of Russian photographs in St. Petersburg led her to conceive of a number of initiatives to help that country preserve its national photographic heritage. After two successful symposia, a two-phased proposal, written by Elena, was granted by the Mellon Foundation to survey the photographs of the State Hermitage Museum. The first part of this grant was to stabilize their collection of daguerreotypes. This historic collection of 83 daguerreotypes either once belonged to the czar or were accepted from aristocratic families during the revolution. With Karina Beeman, Grant Romer traveled to St. Petersburg to educate the conservation and curatorial staff of the State Hermitage Museum about how to care for and stabilize their daguerreotypes and help publish them in a book.

Also during the fourth cycle, fellows Rosina Herrera and Luisa Casella surveyed the photograph collection at the Hispanic Society in New York City. During this survey they made an important discovery of a group of 16 daguerreotypes that are the earliest photographic record of the Philippines and are the only known group of daguerreotypes of Asia, as there are only a few scattered daguerreotypes existing in other collections. In the 1920's these objects were not accessioned into the Hispanic Society's collection since they represented Spanish colonial objects and not items directly from Spain. The Hispanic Society did not have the means to conserve these objects so they came to the lab at George Eastman House at the beginning of the fifth cycle for treatment. The treatment of these objects was started by Rosina Herrera and Karina Beeman. Since fifth cycle fellow Caroline Barcella took charge of the treatment of the so-called Manila Daguerreotypes, it became the subject of her Capstone Research Project. In addition to stabilizing the condition of these daguerreotypes, Caroline perfected a method of creating gilded lines on glass, so she could recreate the *passé partout* presentations of these daguerreotypes.

Additional grants related to the Southworth and Hawes daguerreotypes were developed by Ralph Wiegandt: a Mellon funded pilot daguerreotype documentation project with the MFA Boston as lead agent and the Metropolitan Museum of Art as collaborators to develop an on-line website to share our collections of Southworth & Hawes daguerreotypes and monitor their condition; a prestigious Save America's Treasures grant to preserve George Eastman House's collection of 1,600 daguerreotypes by Southworth & Hawes, and a Getty Foundation grant for a collaborative survey of Southworth & Hawes daguerreotypes.

Conclusion

There are, of course, many other research directions that could be addressed in this paper. For instance, there were many projects that addressed various aspects of treatment within the discipline of photograph conservation.

The fifth cycle of the ARP ended in August 2009. The conservation department of George Eastman House and the research scientists at IPI will continue to educate photo conservators, researchers, collectors and interested people for years to come.

The research of the ARP did not happen in an insular vacuum that exists only in Rochester, New York. Of course, the faculty and fellows are inspired by trends and the needs of other institutions, collectors and conservators in the field. We actively consult with other institutions and people and share our research findings at conferences, in publications and on-line. The research projects of the ARP have not only helped the careers of the fellows, helped our institutions to better care for photographs, but have also provided the field with many directions for the future.

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