Caring for Photographs
Webinar 1: Physical and Chemical Properties of Photographs

Instructor: Debra Hess Norris

Here, There and Everywhere: The Fundamental Components of Photographic Print and Negative Materials

Harry Benson, Paul on the Set of A Hard Day’s Night, London, April 1964, Silver Gelatin Photograph

Here, There and Everywhere: The Fundamental Components of Photographic Print and Negative Materials

REGISTRANTS FOR WEBINAR

Art Conservation Department
- Undergraduate
- Master’s-level
- Doctoral Program in Preservation Studies

Winterthur/University of Delaware Program in Art Conservation

5/7/2013
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Art Conservation Disciplines of Study
- Paper
- Textiles
- Library Materials
- Organic Materials
- Inorganic Materials
- Photographs
- Paintings
- Furniture
- Painted Surfaces

Heather Brown, Second-year Fellow in Master's-Level Program

Art Conservation Department

Greta Glaser, Third-year Fellow in Master's-Level Program

Photographic Conservation Resources

http://www.rap-arcc.org/

Photographic Conservation Resources

Photographic Conservation Resources
Understand the value and vulnerability of these treasures.

Photographic Collections | Around the World

- Enhance scholarship
- Inspire discourse

Photographic Collections | Around the World

- Enhance scholarship and knowledge

Photographic Collections | Around the World

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Photographic Collections | Around the World

- Enhance scholarship and knowledge
- Engage public audiences
Photographic Collections Around the World

- Enhance scholarship and knowledge
- Inspire discourse
- Engage public audiences
- Document history
- Connect cultures globally
- Celebrate greatness

Anonymous, American militia
Daguerreotype, Hand-Colored, 1/6 plate
http://www.luminous-lint.com/app/image/11450755109541172413747/
Photographic Collections are **Endangered**

*Provided by Isle of Wight County Museum and the Archivo General de Puerto Rico*

Photographic Collections are **Endangered**

*Provided by Marcia Anderson*

Photographic Collections are **Endangered**

*Provided by North Carolina Museum of Natural Sciences*

Photographic Collections are **Endangered**

*Provided by North Carolina Museum of Natural Sciences*

Photographic Collections are **Endangered**

*Provided by University of Cincinnati Libraries, Archives & Rare Book Library*

Photographic Collections are **Varied**

- Early direct positive processes

*Ambrotype, c. 1860 - Private Owner*
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Daguerreotype
- 1839 – 1865
- Silver-plated copper support
- Gold-mercury-silver amalgam image material
- Fragile image prone to corrosion
- Highly reflective

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Daguerreotype
- Protective enclosure protects from oxidation and abrasion
- Glass degradation serious challenge

Weeping Glass
- Cracking
- Crazing
- Breaking
- Deterioration of the silver image

Case Construction

Ambrotype

5/7/2013
Ambrotype
- 1852 – 1880
- Glass support prone to damage
- Dimensionality present
- Silver image in collodion binder
- Typically varnished. Yellowed.
- Black asphaltum layer applied to verso (often). May be cracked.

Tintype
- 1856 – 1890
- Japanned iron support
- Silver image in collodion binder
- Typically varnished. Hand coloring in cheeks common

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Making of a contemporary tintype

Photographic Collections are Varied

- Early direct positive processes
- Print Materials

Hand-colored Postcards

- Courtesy of Image Permanence Institute

Major Photographic Processes

- Salted Paper
- Albumen Prints
- Gelatin and Collodion Printed-Out Papers
- Gelatin Developed-Out Papers
- Chromogenic Color
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Print Processes
- Salted paper 1840-55
- Albumen 1851-95
- Gelatin & collodion printed-out papers 1895-1905
- "Black & white" developed-out papers 1905-60
- Chromogenic color paper 1960-present

Albumen
- 1851 – 1890
- Thin paper support
- Silver image
- Egg white binder
- Image fading
- Binder will crack

Silver Gelatin
- 1895 – 1960
- Paper support coated with baryta
- Silver image
- Gelatin binder
- Image fading
- Silver mirroring

Contemporary Color Processes
- Cyan
- Magenta
- Yellow
- Paper (Resin-Coated Paper)

Chromogenic Color
- 1940 – 2010
- Dye-based image
- Gelatin binder
- Dye fading
Chromogenic Color

- 1940 – 2010
- Dye-based image
- Gelatin binder
- Dye fading

Photomechanical Print: Colotype

Photomechanical Print: Colotype

Photomechanical Print: Colotype

http://www.graphicsatlas.org
Photographic Collections are Varied

- Early direct positive processes
- Print Materials
- Negatives

Courtesy of Luis Pavao
Photographic Collections are Varied

- Early direct positive processes
- Print Materials
- Negatives
- Photographic Albums

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North Carolina State Museum of Natural Sciences

Photography: Component Parts

Support
- (paper, glass, iron, silver plated copper, plastic, textile, leather, wood and more)

Photography: Component Parts

Binder
- (albumen, collodion, gelatin)

Support
- (paper, glass, iron, silver plated copper, plastic, textile, leather, wood and more)
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Photography: Component Parts

**Final Image Material**
(silver organic dyes, pigments, platinum, gold, iron salts)

**Binder**
(albumen, collodion, gelatin)

**Support**
(paper, glass, iron, silver plated copper, plastic, textile, leather, wood and more)

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**Basic Preservation Advice**

- House collections in good-quality plastic or paper enclosures and box for protection.

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**Basic Preservation Advice**

- Control temperature and RH as possible.

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**Basic Preservation Advice**

- Limit light levels for display. Exhibit digital or other copies.

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**Basic Preservation Advice**

- Seek advice from experts. The American Institute for Conservation Referral Service.

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**Basic Preservation Advice**

- Secure collections against emergencies. Be prepared. Handle carefully.
Or..... Don’t Leave Grandma in the Attic!

“HOMEWORK” Identify the three primary preservation challenges associated with your photograph collection and strategies for improvement.

Courtesy of Image Permanence Institute