

### *Art Conservation Disciplines of Study*

Paper  
Textiles  
Library Materials  
Organic Materials  
Inorganic Materials  
Photographs  
Paintings  
Furniture  
Painted Surfaces



### *Art Conservation Department*



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

### *Art Conservation Department*

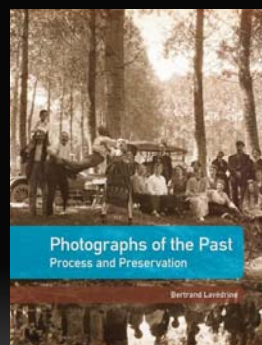


Top Right: Detail *Portrait of John Sloan*, Platinum print on thin tissue paper with a smooth surface. Bottom Right: Detail *Portrait of John Sloan*, Gum bichromatic print on medium-weight wove paper with slight texture.



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

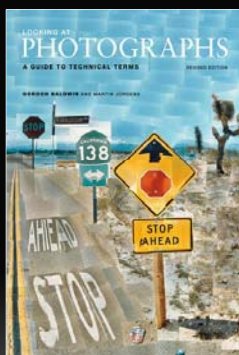
### Photographic Conservation Resources



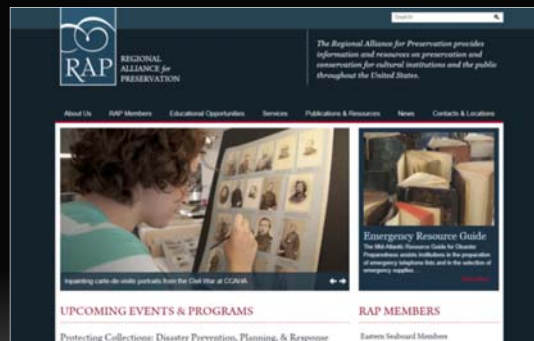
A Guide to the  
Preventive Conservation  
of Photograph Collections

Bertrand  
Lavédrine


### Photographic Conservation Resources



### Photographic Conservation Resources




*Understand* the value and vulnerability of these treasures.....



Fouad Naamani. Anonymous, 1930. AIF/Hoda Naamani. Copyright © Arab Image Foundation

Photographic Collections *Around the World*


- Enhance scholarship



University of Nebraska-Lincoln Libraries,  
The Omaha Indian Heritage Project,  
Nebraska State Historical Society Collection, 1882

Photographic Collections *Around the World*


- Enhance scholarship and knowledge



Anna Atkins,  
Cyanotype  
Equisetum Sylvaticum  
J Paul Getty Museum

Photographic Collections *Around the World*

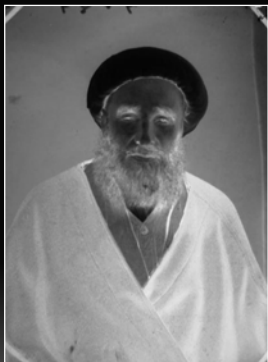
- Enhance scholarship and knowledge
- Inspire discourse



Unidentified Photographer, Portrait of an unidentified African-American woman, daguerreotype with applied color, George Eastman House 69.10.11.2020

Photographic Collections *Around the World*

- Enhance scholarship and knowledge
- Inspire discourse



Glass Plate Negative Private Collection, Iran

Photographic Collections *Around the World*

- Enhance scholarship and knowledge
- Inspire discourse
- Engage public audiences




Anonymous  
Albumen Photograph, Cabinet Card  
Private Collection



Photographic Collections *Around the World*

- Enhance scholarship and knowledge
- Inspire discourse
- Engage public audiences



Anonymous, Albumen Photograph  
Courtesy of Mohammad Reza Tahmasbpour

Photographic Collections *Around the World*

- Enhance scholarship and knowledge
- Inspire discourse
- Engage public audiences
- Document history



Anonymous  
Chromogenic Color Photograph

Photographic Collections *Around the World*


- Enhance scholarship and knowledge
- Inspire discourse
- Engage public audiences
- Document history



Unidentified photographer  
American militia  
Daguerreotype, Hand-Colored, 1/6 plate  
<http://www.luminous-lint.com/app/image/11450755109541172413747/>

Photographic Collections *Around the World*


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



Anonymous, Silver Gelatin Photograph,  
Arab Image Foundation,  
Beirut, Lebanon

Photographic Collections *Around the World*

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



Robert Runyon, Y. Z. Vasquez (Mexican consul)  
Silver Gelatin Print  
The Center for American History and General Libraries,  
University of Texas at Austin

Photographic Collections *Around the World*

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



Gunn & Stuart  
Queen Victoria  
1857  
Silver Gelatin Printing - Out Photograph  
Cabinet card  
<http://www.luminous-lint.com/app/image/872503111642087485648/>

Photographic Collections are *Endangered*



Provided by Isle of Wright 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*



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

### Daguerreotype

- 1839 – 1865
- Silver-plated copper support
- Gold-mercury-silver amalgam image material
- Fragile image prone to corrosion
- Highly reflective



Evans, Charles. Girl with doll, holding mother's hand  
Daguerreotype, George Eastman House, 77.0240.0024

### Daguerreotype

- 1839 – 1865
- Silver-plated copper support
- Gold-mercury-silver amalgam image material
- Fragile image prone to corrosion
- Highly reflective



Woman Facing Left  
Rufus Anson (American)  
Date: 1850s Medium: daguerreotype Dimensions: 5.9 x 4.2 cm (2 3/16 x 1 5/8 in.) visible Classification: Photographs  
Metropolitan Museum of Art

### Daguerreotype

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



Anonymous  
Daguerreotype with glass degradation  
private collection



Anonymous  
Daguerreotype with glass degradation  
George Eastman House

### Weeping Glass

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

### Case Construction



### Ambrotype



Brady, Mathew B.  
American (1823-1896)  
Portrait ca. 1860  
ambrotype  
George Eastman House



## Ambrotype



<http://19thcenturypaperdolls.weebly.com/1post/2009/08/little-girls-with-little-curls.html>

## 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.



[Private Edward A. Cary of Company I, 44th Virginia Infantry Regiment, in uniform and his sister, Emma J. Garland nee Cary]  
Creator(s) *Samuel J. Carter, S.*, photographer  
Medium: 1 photograph : sixth-plate ambrotype, hand-colored ; 9.2 x 8.3 cm (Library of Congress Prints and Photographs Division Washington, D.C.)

## Tintype

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



Hand colored Tintype  
Anonymous  
Private Owner

## Tintype

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



Anon.  
Young boys  
Tintype  
Private Collection

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Anon.  
Young boys  
Tintype  
Private Collection

## Making of a contemporary tintype



[http://www.nytimes.com/slideshow/2009/11/11/style/20091112-tin-slideshow\\_6.html](http://www.nytimes.com/slideshow/2009/11/11/style/20091112-tin-slideshow_6.html)

### Tintype or Ferrotype



Tintype, Jon Cox, Tanzania

### Photographic Collections are *Varied*

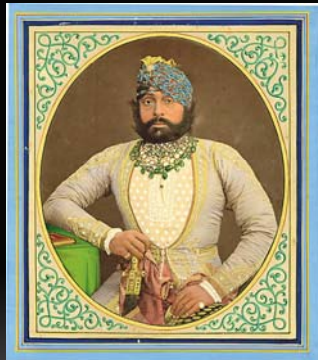
- Early direct positive processes
- Print Materials



Madame Medori  
Matthew B. Brady  
Date: ca. 1857  
Salted paper print from glass negative  
Gimian Collection, The Metropolitan Museum of Art

### Photographic Collections are *Varied*

- Early direct positive processes
- Print Materials



Portrait of Jaspwan Singh II of Jodhpur (1873-1896)  
Photographer unknown, overpainted by Shivalal  
Date: ca. 1876  
Hand-colored Albumen Photograph  
The Metropolitan Museum of Art

### Hand-colored Postcards



Courtesy of Image Permanence Institute

### Hand-colored Postcards



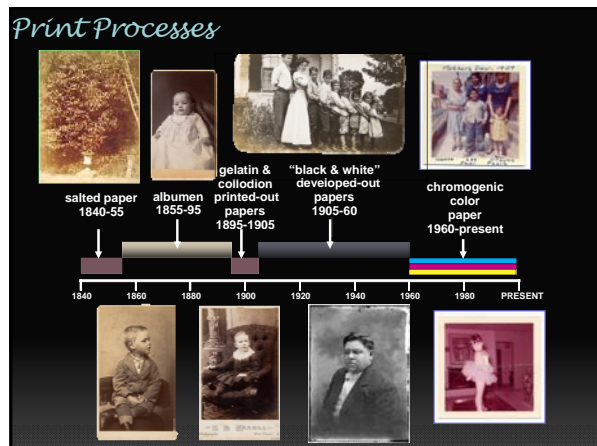
Courtesy of Image Permanence Institute

### Major Photographic Processes

- Salted Paper
- Albumen Prints
- Gelatin and Collodion Printed-Out Papers
- Gelatin Developed-Out Papers
- Chromogenic Color







### Albumen

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



Albumen Photographs, Carte-de-visites, Private Collection

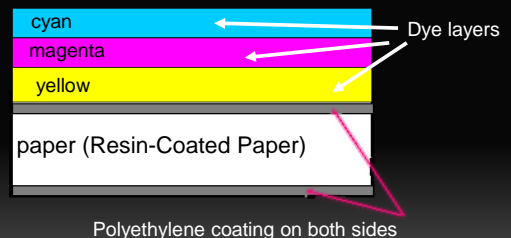
### Silver Gelatin

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



Gilcrease Museum, Silver Gelatin Photograph, 4327 - 3060

### Contemporary Color Processes



### Chromogenic Color

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



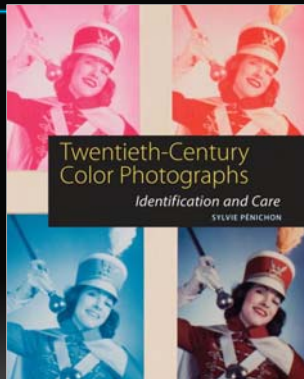
### Chromogenic Color

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



## Chromogenic Color

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



## Photomechanical Print: Collotype



Japanese Postcard, Graphics Atlas, Image Permanance Institute

## Photomechanical Print: Collotype



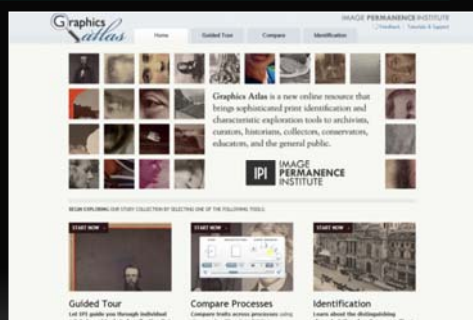
Japanese Postcard, Graphics Atlas, Image Permanance Institute

## Photomechanical Print: Collotype



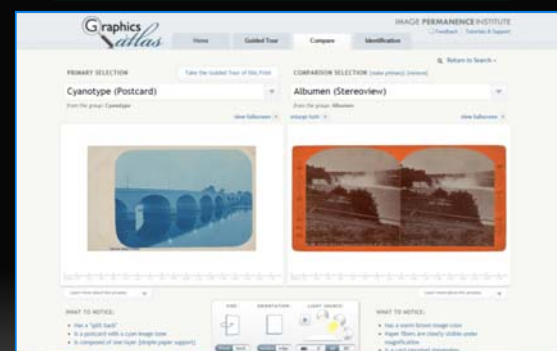
Japanese Postcard, Graphics Atlas, Image Permanance Institute

## Photomechanical Print: Collotype



<http://www.graphicsatlas.org>

<http://www.graphicsatlas.org>





**Photographic Collections are *Varied***

- Early direct positive processes
- Print Materials
- Negatives

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- Early direct positive processes
- Print Materials
- Negatives

Cellulose Nitrate Film-Base Negative, Private Owner

**Photographic Collections are *Varied***

- Early direct positive processes
- Print Materials
- Negatives

Left: Cellulose Acetate Film-base negative, private owner

**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



### Photographic Collections are *Varied*

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



Courtesy of Luis Pavao

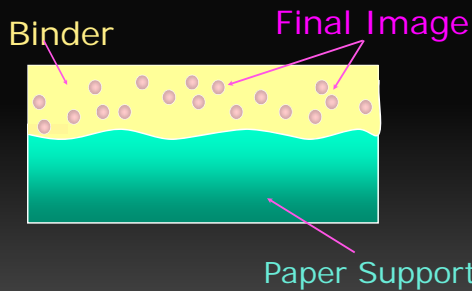
### Photographic Collections are *Varied*

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



North Carolina State Museum of Natural Sciences

### GENERIC STRUCTURE OF PHOTOGRAPHIC MATERIALS



Binder

Final Image

Paper Support

### 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)

## 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)

## Basic Preservation *Advice*

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



The Metropolitan Museum of Art, credit Tania Meller

## Basic Preservation *Advice*

- Control temperature and RH as possible.



Courtesy of Library of Congress and Arab Image Foundation



## Basic Preservation *Advice*

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



Richard Steinman,  
The Metropolitan Museum of Art  
and now The Better Image

## Basic Preservation *Advice*

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



## Basic Preservation *Advice*

- Secure collections against emergencies. Be prepared. Handle carefully.



Courtesy of The Metropolitan Museum of Art



Damage sustained from water emergency. Private Owner

*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