The Preservation of 19th-Century Photographic Print Materials

Debra Hess Norris, Chair, Art Conservation Department, University of Delaware, USA
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Photographic Collections are Varied

- Early direct positive processes
- Print Materials
- Negative Materials
- Photographic albums
- Framed materials

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Francis Frith, *Interior Hall of Columns, Karnac*, Albumen Photograph, George Eastman House
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19th Century Photographic Print Materials

Key Topics to Consider

- Timeline & Identification

Department of Photographs
Metropolitan Museum of Art
19th Century Photographic Print Materials

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- Timeline & Identification
- Deterioration Problems
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- Deterioration Problems
- Preservation Guidelines and Priorities

Visible Light Monitoring, Metropolitan Museum of Art
19th Century Photographic Print Materials

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Popular 19th Century Photographic Print Processes Timeline

1840 - 1855 - 1910
Structure of Photographic Print Materials

Binder Layer

Final Image Material

Baryta

Primary Support
Common 19th Century Photographic Print Materials

- Salted Paper
- Albumen
- Silver Gelatin
- Collodion Chloride
- Printing Out
- Platinum
- Cyanotype

c. 1845
Salted paper print
21.1 x 15.7 cm.
Museum Collection
George Eastman House
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Anna Atkins,
Cyanotype
Equisetum Sylvaticum
J Paul Getty Museum
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Anna Atkins, Cyanotype
Equisetum Sylvaticum
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Salted Paper

- 1841 – 1860
- No binder layer
- Photolytic silver image produced by light
- Purplish-brown image color
- Faded silver image
- May be abraded

Images from the Image Permanence Institute, Graphics Atlas: www.graphicatlas.org
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Albumen Photograph

- 1855 – 1895
- Egg white binder on thin rag paper support
- Photolytic silver image produced by light
- Typically gold toned
- Often mounted
- Purplish-brown image color
- Yellowed highlights
- Crazed egg white surface

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Silver Gelatin Printing Out Paper

- 1885 – 1940
- Gelatin binder layer
- Paper coated with baryta – glossy surface
- Photolytic silver image may fade or discolor
- Typically gold toned
- Often mounted
- Purplish-brown image color
- Gelatin may flake or abrade
Silver Gelatin Printing Out Paper

- 1885 – 1940
- Gelatin binder layer
- Paper coated with baryta – glossy surface
- Photolytic silver image may fade or discolor
- Typically gold toned. May be retouched.
- Often mounted
- Gelatin may flake or abrade
Collodion Chloride Matte

- 1894 – 1914
- Collodion binder layer
- Paper coated with thin layer baryta – matte surface
- Silver image toned with gold and platinum
- Very permanent
- Collodion may abrade
Collodion Chloride Glossy

- 1894 – 1914
- Collodion binder layer
- Paper coated with thick layer of baryta – glossy surface
- Silver image toned with gold
- Image may fade
- Easily abraded
Platinum Print

- 1890 – 1920
- No binder layer
- Based on light sensitivity of iron salts
- Platinum image
- Image will not fade
- Paper support may yellow

A. Marshall Studio
Platinum print
Private Collection
Platinum Print

- 1890 – 1920
- No binder layer
- Based on light sensitivity of iron salts
- Platinum image
- Image will not fade
- Paper support may yellow
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- 1890 – 1920
- No binder layer
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- Platinum image
- Image will not fade
- Paper support may yellow
Cyanotype

- 1890 – 1920
- No binder layer
- Based on light sensitivity of iron salts
- Blue pigment image
- May fade in light

Anna Atkins,
Cyanotype
Equisetum Sylvaticum
J Paul Getty Museum
Photograph Process Identification – Review

- Surface sheen
- Image tonality
- 30X magnification
- Mounting style
- Image fading
- Binder layer cracking
- Binder abrasion
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Preservation Guidelines

- Environmental control essential
- Use high quality enclosures
- Handle with care
- Protect from dust and abrasion
- Emergency plan established
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Thank you for your attention....

And our wonderful collaboration