Identification and Preservation of Photographic Collections

CARLI Preservation Working Group
Audiovisual Preservation Forum
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Presented by:
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Heliograph, View from the Window at Gras, Joseph Nicéphore Niépce 1826.
Identification of Major Processes

• Heliographs
Identification of Major Processes

• Daguerreotypes

William Pratchett, 1850s, University of Connecticut
Identification of Major Processes

- Salted Paper Prints
Identification of Major Processes

• Cyanotypes
Identification of Major Processes

- Tintypes & Ambrotypes (collodion process)
Identification of Major Processes

• Albumen prints
Identification of Major Processes

- Carbon Prints
Identification of Major Processes

• Collodion Printing Out (Glossy Collodion)
Identification of Major Processes

• Matte Collodion
Identification of Major Processes

- Platinum Prints
Identification of Major Processes

- Silver Gelatin
  - Printing out
Identification of Major Processes

- Silver Gelatin
  - Developing out
Identification of Major Processes

• Color Processes
  – Instamatic
Identification of Major Processes

- Color Processes
  - Chromogenic
Identification of Major Processes

• Color Processes
  – Cibachrome
Identification of Major Processes

- Negatives: Paper and Glass
Identification of Major Processes

- Negatives: Film (Nitrate, Acetate and Polyester)

### KODAK Black-and-White Films

<table>
<thead>
<tr>
<th>Film Type</th>
<th>Notch Type</th>
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</thead>
<tbody>
<tr>
<td>KODALITH Ortho 2556, Type 3</td>
<td>(No Notch)</td>
</tr>
<tr>
<td>Technical Pan / TP</td>
<td>(Universal Notch)</td>
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<tr>
<td>T-MAX 100 / 100TMX</td>
<td></td>
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<tr>
<td>T-MAX 400 / 400TMY</td>
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<tr>
<td>TRI-X 320 / 320TXP</td>
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Identification of Major Processes

- Transparencies Autochromes (glass)
Identification of Major Processes

- Transparencies: Lantern Slides and Glass Slides
Identification of Major Processes

- Transparencies: Film Slides
Deterioration

- **Cased Photographs**: Case and coverglass deterioration, daguerreotype oxidation, broken ambrotypes, rusting tintypes

Weeping cover glass

http://archfoto.atspace.com/daginsten.html
Deterioration

- Paper negatives & salted paper prints:
  Light sensitivity and fragility of paper
Deterioration

- Cyanotypes: fading due to light and pH
Deterioration

- Platinum prints: image burn
Deterioration

- Albumen:
  - Cracking
  - Fading
  - Curling
Deterioration

• Silver gelatin: Mirroring
Deterioration

• Color images: Dye fading
Deterioration

- Negatives and Transparencies: Glass support failure
Deterioration

- Negatives: Acetate and nitrate base deterioration
Preservation

Enclosures

- “archival”
- pH (<7.0, 7.0, >7.0)
- Lignin-free
- Buffered
- Unbuffered
- High Alpha-Cellulose Content
- Permanent Paper

The infinity symbol inside a circle identifies a publication printed on paper that will last for several hundred years. The paper meets the criteria set forth in American National Standard for Information Sciences - Permanence of Paper for Printed Library Materials, ANSI Z39.48-1992.

- LE (Life Expectancy)
- Photographic Activity Test (PAT)
Preservation

• Handling
  – To sleeve or not to sleeve?
  – Emulsion damage
  – Abrasion
Preservation

- **Storage**
  - RH – low (30-40%)
  - Cold Storage (Frozen)
    - Color, cellulose based film
  - Cool Storage (50-60° F/10-15° C)
    - Most other photographic formats
- **Light**
  - Dark storage ideal, necessary for color, cyanotypes, slated paper prints, and poorly fixed albumen and silver gelatin
  - (200-400 lux)
Preservation

• Enclosures
  – Sleeves
  – Folders
  – Window mats
    • Attachment methods
      – Hinges
      – Corners
      – Slings
Preservation

• Conservation Treatments
  – Humidification and Flattening
  – Mending tears
  – Stuck Emulsions
Questions?

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