

Eight Days a Week:
Preservation Planning and Advocacy



Mike Mitchell, Feb. 11, 1964 at Washington Coliseum, Silver Gelatin Photograph

PHOTOGRAPHIC PRESERVATION: RISK ASSESSMENT & IMPLEMENTATION

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Images courtesy of the Kamran Najafzadeh Collection, Iran


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HBCU Photograph Preservation Institute, Image from Evan Krape, University of Delaware

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Photographic Conservation Resources



Photographs of the Past
Process and Preservation

A Guide to the
Preventive Conservation
of Photograph Collections

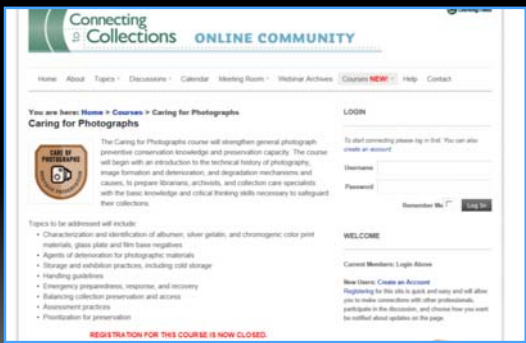
Bertrand Landrine

https://www.imagepermanenceinstitute.org/webfm_send/302

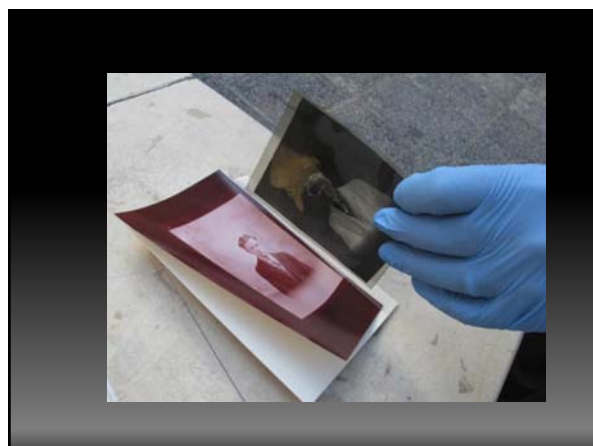


*Photographic
Negatives*
Nature and Evolution of Processes

By María Fernanda Valverde



<http://www.connectingtocollections.org/courses/caring-for-photographs/>



Assess Collection Needs & Demonstrate Thoughtful Planning

- Identify urgent needs
- Prioritize
- Focus on strength
- Involve experts



Frederick Langenheim
Frederick Langenheim Looking at Talbotype Disquerotypes
Dimensions: 4 3/4 x 3 1/2, Case: 6 x 4 11/16 x 5 5/8
Giltwood Collection, The Metropolitan Museum of Art

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ESTABLISH PRIORITY *for* PRESERVATION

- Level of access




Kapsler, Victor: *Hauswaffe in Kitchen*
color print, assembly (Carbro) process
George Eastman House
77-0292.0011

PHOTOGRAPHIC PRESERVATION: RISK ASSESSMENT & IMPLEMENTATION

ESTABLISH PRIORITY *for* PRESERVATION

- Level of access
- Type & format




Emily Brown, Art Conservation Fellow, Winterthur/UD Program in Art Conservation

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ESTABLISH PRIORITY *for* PRESERVATION



- Level of access
- Type & format



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- Type & format


Albumen Photographs, Carte-de-visites, Private Collection

Glass Plate Negative Private Collection, Iran

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ESTABLISH PRIORITY *for* PRESERVATION

- Level of access
- Type & format



Helen Medici (Nana) and Debra Prima Norris 1957, Kodachrome

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Lantern Slide
Schooner, Elizabeth City NC
North Carolina State Museum of Natural Sciences
Raleigh, NC

Lantern Slide
Tree fruits, Carmen Peach, Moore Co. NC
North Carolina State Museum of Natural Sciences
Raleigh, NC


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Private J. M. Strasburg, Company A, 95th Regiment, Ohio Volunteers
General Commission on Archives and History
The United Methodist Church
Madison, NJ

Public Library of Cincinnati and Hamilton County
Cincinnati, OH

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Fr. Barnabas Pursitt
Our Lady of Guadalupe Province
Office of Archives
St. Michaels, AZ

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Shaft Guards at Thuber Coal Camp, under Capt. Wm. Lightfoot, July, 1894
Dick Smith Library
Tarleton State University
Sevensville, TX

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ESTABLISH PRIORITY *for* PRESERVATION

- Level of access
- Type & format
- Level of physical protection

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ESTABLISH PRIORITY *for* PRESERVATION

- Level of access
- Type & format
- Level of physical protection
- Value to institution

Museum of Photography, Bahrain

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Collective Needs Assessment Survey

The Preservation Plan

Images from Collections examined by Conservation Center for Art and Historic Artifacts

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Generic Preservation Planning for Photographic Collections

1. Environmental assessment and incremental control

- 30% - 50% RH
- 68°F (40°F or below for color)
- Low temperature and low humidity for nitrate & acetate film

National Center for Documentation and Research, Abu Dhabi, UAE



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IPI Media Storage Guide

- Information in short and accessible format
- Information on materials and preservation issues
- Addresses needs for mixed media



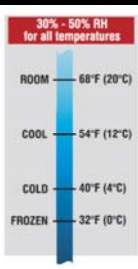
<https://www.imagepermanenceinstitute.org/store/media-preservation/media-storage-quick-reference>

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IPI Media Storage Guide

Table 1: The types of decay that threaten media, the media that are affected, and recommended storage environments.

TYPE OF DECAY	MEDIA	RECOMMENDED ENVIRONMENT
SILVER IMAGE DECAY	Photographic glass plates Black-and-white film Black-and-white photographic prints	30% to 50% RH
COLOR IMAGE DECAY	Color film Color photographic prints ink jet prints	Low temperature 30% to 50% RH
COLOR BLEEDING	ink jet prints	30% to 50% RH
YELLOWING, STAINING	Color photographic prints inkjet prints	Low temperature 30% to 50% RH
BINDER DEGRADATION	Magnetic tapes	Low temperature 30% to 50% RH
NITRATE DECAY	Nitrate-base film	Low temperature 30% to 50% RH
ACETATE DECAY	Acetate-base black-and-white film Acetate-base color film Acetate-base magnetic tape	Low temperature 30% to 50% RH
GLASS DETERIORATION	Photographic glass plates	30% to 50% RH
LAYER SEPARATION	Photographic glass plates CDs and DVDs	Minimal temperature and RH fluctuations 30% to 50% RH
MOLD	All media	30% to 50% RH



PHOTOGRAPHIC PRESERVATION: RISK ASSESSMENT & IMPLEMENTATION

Generic Preservation Planning for Photographic Collections

2. Preparation of handling and housekeeping guidelines and an emergency plan



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Generic Preservation Planning for Photographic Collections



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Exhibition Guidelines

- Evaluate process
- Evaluate exhibition conditions
 - Light type and levels
 - Duration of exhibition
 - Environmental conditions
 - Method of presentation




Richard Avedon: Portraits September 26, 2002–January 5, 2003
The Metropolitan Museum of Art

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Exhibition Guidelines

- Kinds of lights available:
 - Fiber optic
 - LED
 - Fluorescent
 - Incandescent

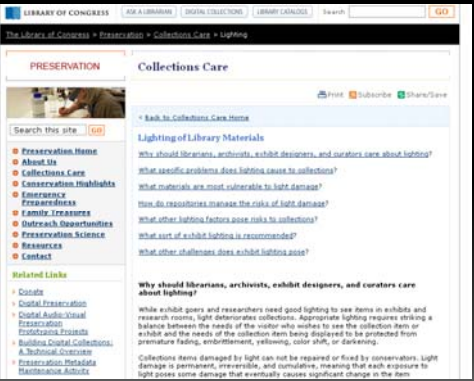


PHOTOGRAPHIC PRESERVATION: RISK ASSESSMENT & IMPLEMENTATION

Exhibition Guidelines

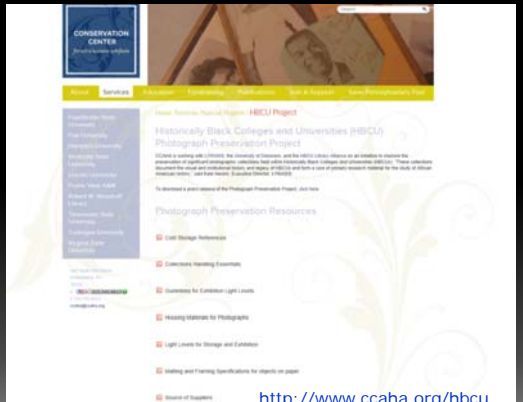
- Lighting Tips:
 - Duration: 3-6 months is normal, 9 months is considered long
 - Intensity: 5 foot-candles (50 LUX) max for sensitive materials
 - Sensitivity: assume all photographs are light-sensitive
 - Wavelength: UV (i.e. daylight) is more destructive than other kinds of light

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<http://www.loc.gov/preservation/care/light.html>

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<http://www.ccaha.org/hbcu>

PHOTOGRAPHIC PRESERVATION: RISK ASSESSMENT & IMPLEMENTATION

Photography: Component Parts

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

PHOTOGRAPHIC PRESERVATION: RISK ASSESSMENT & IMPLEMENTATION

Photography: Component Parts

Binder
(albumen, collodion, gelatin)

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

PHOTOGRAPHIC PRESERVATION: RISK ASSESSMENT & IMPLEMENTATION

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)

Effect of Visible and UV Light on Photographs



Portrait of Garrett Davis, Smithsonian Institution Archives;



Portrait of J. D. Dana, Smithsonian Institution Archives;

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Effect of Visible and UV Light on Photographs



PHOTOGRAPHIC PRESERVATION: RISK ASSESSMENT & IMPLEMENTATION

Effect of Visible and UV Light on Photographs



Courtesy of Nora Kennedy

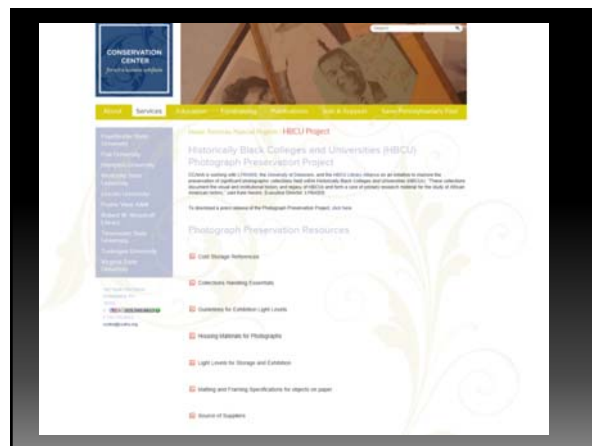
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Measuring Color



Photograph: Nora Kennedy study by Katie Sanderson, The Metropolitan Museum of Art

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Findings from The Heritage Health Index



2.6 billion items of historic, cultural, and scientific significance are not protected by an emergency plan and are at risk should a disaster strike their institutions

Emergency Planning, Response & Recovery



Damage from Hurricane Sandy, October 2012

Recovery of water-damaged photographic materials

- Collections can be safely frozen, if space and time requires
- Freeze drying may be possible with some collection materials
- Document carefully
- Wet surfaces will be fragile and may be tacky



PHOTOGRAPHIC PRESERVATION: RISK ASSESSMENT & IMPLEMENTATION

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Recovery of water-damaged photographic materials

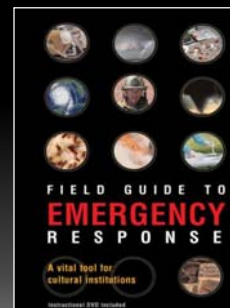
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Field Guide To Emergency Response

- Spiral-bound notebook outlines initial steps, essential functions, 10 most common problems.
- Customized information tabs
- DVD demonstrates basic salvage techniques.

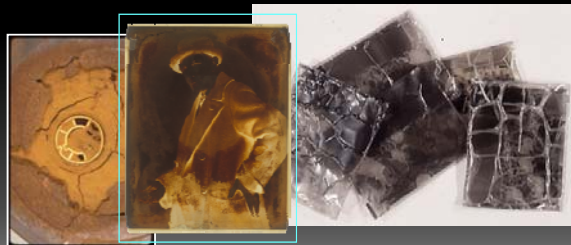


<https://www.heritagepreservation.org/catalog/product.asp?IntProdID=33>

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Generic Preservation Planning for Photographic Collections

3. Inspection of film-base negative collections



Cellulose Nitrate and Acetate Film Base, provided by Nora Kennedy

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Film Base Identification Guidelines

- Specific dates
- Edge stamping
- Deterioration characteristics



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Film Base Preservation Strategies

Long-term Goals

- Establish cold storage environment (not necessary to separate nitrate from acetate)
- Duplicate heavily used collections

Cellulose nitrate negatives (during rehousing) from the Dr. Rose Collection, Smithsonian Institution Archives



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Generic Preservation Planning for Photographic Collections

4. Duplication program for deteriorated negatives

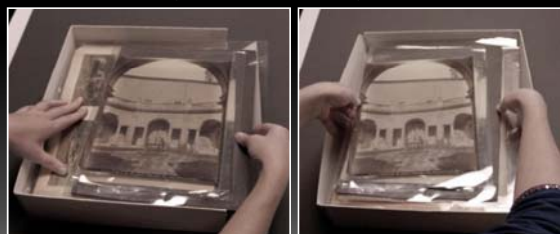


Technical Guidelines for Digitizing Cultural Heritage Materials: Creation of Raster Image Master Files
http://www.digitizationguidelines.gov/guidelines/FADGI_Still_Image-Tech_Guidelines_2010-08-24.pdf

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Generic Preservation Planning for Photographic Collections

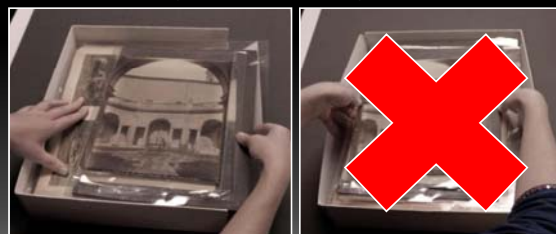
5. Rehousing of historic photographic prints



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Generic Preservation Planning for Photographic Collections


5. Rehousing of historic photographic prints



PHOTOGRAPHIC PRESERVATION: RISK ASSESSMENT & IMPLEMENTATION

Photographic Storage: General Recommendations


- Separate print and negative collections
- Utilize standard-sized enclosures
- Consider plastic versus paper
- Review relevant ISO standards
- Purchase acid-free boxes for extra protection



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PHOTOGRAPHIC PRESERVATION: RISK ASSESSMENT & IMPLEMENTATION

Photographic Storage: General Recommendations

- **Paper and board:**
 - "acid free" means acidic at the time of manufacture, may become acidic with time
 - Try to find "lignin free," "rag board," or "museum board"
 - Should pass Photographic Activity Test

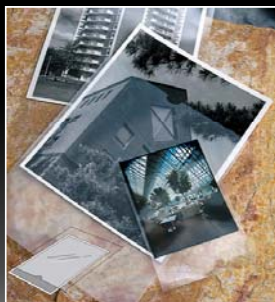


The Metropolitan Museum of Art, credit Taina Meller

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Photographic Storage: General Recommendations


- **Plastic:**
 - Polyester 😊
 - Polyethylene 😊
 - Polypropylene 😊
 - AVOID vinyl (PVC)
 - AVOID acetate



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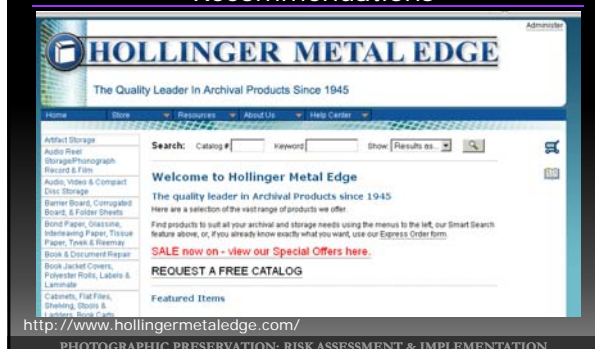
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Paper vs. Plastic

• Opaque	• Transparent
• Porous	• Non-porous (not recommended for cellulose negatives)
• Weaker (may tear easily)	• Stronger
• No static	• May have sharp edges
	• Static

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Photographic Storage: General Recommendations



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Some Recommended Suppliers

- Archival Products: <http://www.archival.com/>
 - 1-800-526-5640
- Gaylord: <http://www.gaylord.com/>
 - 1-800-962-9580
- University Products: <http://www.universityproducts.com/>
 - 1-800-628-1912
- Talas: <http://www.talasonline.com/>
 - 212-219-0770
- Hollinger Metal Edge: <http://www.hollingermetalede.com/>
 - 1-800-862-2228
- Archivart: <http://s390435715.onlinehome.us/>
 - 1-888-846-6847

Photographic Storage: Basic Properties

- Smooth-surfaced paper of best quality available
- pH of paper cold extract
- Lead acetate for the detection of reducible sulfur compounds that will tarnish silver
- The Beilstein Test for the presence of chlorines (in plastics)



Bertrand Lavedrine (Paris) and Tram Vo (Getty Conservation Institute) teaching in Beirut, MEPP

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Photographic Storage: General Recommendations

- Framing:**
 - Use spacers to prevent sticking to glazing
 - Using UV-filtering glass or acrylic: <http://www.tru-vue.com/>



PHOTOGRAPHIC PRESERVATION: RISK ASSESSMENT & IMPLEMENTATION

Photographic Storage: General Recommendations

- Separate print and negative collections
- Utilize standard-sized enclosures
- Consider plastic versus paper
- Review relevant ISO standards
- Purchase acid-free boxes for extra protection



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Generic Preservation Planning for Photographic Collections

6. Identification of photographic prints requiring conservation treatment



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Conservation Priorities for Photographic Prints

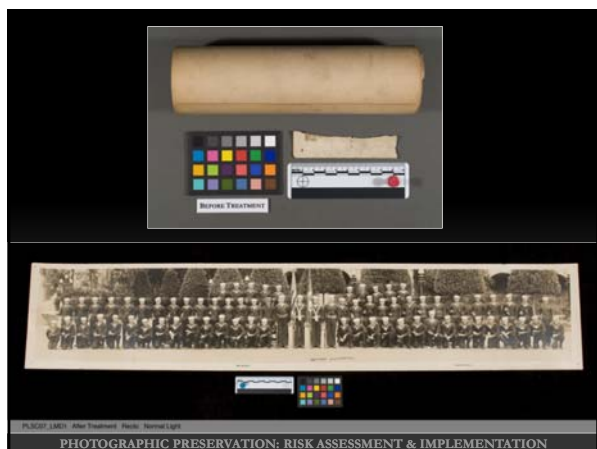
- Active mold
- Flaking binder layers
- Pressure-sensitive tapes
- Rubber cement adhesives
- Severely degraded primary or secondary supports



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Silver Gelatin Photograph from the Conservation Center for Art and Historic Artifacts in Philadelphia, PA

Before Treatment



After Treatment



Private Owner, c. 1920s

Basic Preservation Advice

- Seek advice from experts. Local museums or The American Institute for Conservation.



PRESENTATION TO BE CONTINUED
IN WEBINAR 5...