FUNDAMENTALS OF ARCHIVAL PRESERVATION

Megan K. Friedel, Archivist
University of Alaska Anchorage
Alaska State Historical Records Advisory Board
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What causes paper to degrade?

- The nature of paper!
- Acidity (pH=7) makes paper brittle
- Inks
- Colored or dyed paper
- Chemicals in copied paper
- Exposure to heat and/or moisture
- Glues, tape, other adhesives, staples, paper clips
- Contact with other unstable, acidic materials
- Handling and use
What causes photographs to degrade?

- Exposure to light
- Exposure to chemicals and gases
- Exposure to heat
- Exposure to moisture
- Poorly fixed chemicals in photo
- Glues, tape, other adhesives, staples, paper clips
- Contact with other unstable, acidic materials
- Handling and use
Bad Storage Conditions for Archival Materials

- High temperature
- High humidity
- Big swings in temperature/humidity
- Lots of light, dirt, and/or dust
- Mold or mildew growth
- Near heaters, washers, water pipes, copy machines, food, drinks, or plants
- Exposure to pollutants or chemicals

NO GARAGES AND USUALLY NO BASEMENTS OR ATTICS
Good Storage Conditions for Most Archival Materials

Store on metal shelves (not wood!) on interior walls

Stable temp: 66-68 F
Stable humidity: 35-50%
Other Considerations

• Monitor humidity with a hygrothermograph
• Store away from pipes, windows, drains, heat sources, & chemicals
• DO NOT store materials directly on floor or on top of shelves
• Consider these questions: Will the shelves hold the weight of the boxes? Are the shelves earthquake-resistant?
Storage Enclosures: Acid-Free, Lignin-Free Boxes

Letter or legal-sized document boxes

Record cartons (1 cubic foot)

Oversize boxes

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Storage Enclosures: Acid-Free, Lignin-Free Folders

Use appropriate-sized folders for documents:

- Letter size
- Legal size
- Oversize
General Rules for Storing Archival Materials

• Always fill boxes - or use spacers to fill up extra space (see photo)
  • Do not overfill boxes or folders
• Do not cut out or remove materials from bound volumes or scrapbooks except when documents are in 3-ring binders with no historical value
  • Remove rusted paperclips, staples, or other metal fasteners
• Store bound volumes flat on side on shelf or in oversize boxes
• Do not cut, fold, or otherwise alter the record to fit inside of the box

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Special Storage Conditions: Oversize Materials

Maps, posters, blueprints, & other oversize manuscript material may not be able to fit into a folder or document box.

Use flat files to store oversize documents...

...or use map tubes for rolled oversize documents.

Do not roll up documents that were originally flat!
Special Storage Conditions: Photographs

**Envelopes?**
Available in buffered and unbuffered.

DO NOT USE glassine or Kraft paper envelopes.

**Sleeves?**

GOOD SLEEVES: Mylar, polypropylene, polyethylene

BAD SLEEVES: polyvinyl chloride (PVC)
Caring for photos already in scrapbooks or albums

General rule of thumb:  
Don’t take them apart!

Interleave with acid-free tissue paper
Storage & Care for Specific Photo Formats

EARLY PHOTOGRAPHIC PROCESSES

• Store cased photographs flat in a small oversize box or upright in acid-free envelopes inside a “pamphlet” box.

• Do not remove photographs from cases.

• Loose tintypes: store in acid-free envelopes.

• Mark outside of box as “Glass” or “Fragile”.

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Storage & Care for Specific Photo Formats

ROLLED PHOTOGRAPHS
Store “as is” in acid-free poster tube or box.

SLIDES
Do not store in slide carousel.
Store in acid-free slide boxes or PVC-free sleeves.
Storage & Care for Specific Photo Formats

GLASS NEGATIVES, POSITIVES, & LANTERN SLIDES

Store each in acid-free envelope or 4-flap enclosure & put in appropriate-sized acid-free box. Mark outside of box as “Glass”.

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Storage & Care for Specific Photo Formats

NITRATE NEGATIVES
• Separate from other archival material.
• DO NOT make prints or scans from negatives.
• Best storage is cold storage, in separate acid-free envelopes and in acid-free boxes. Do not store multiple negatives in one envelope.

ACETATE “SAFETY” NEGATIVES
• Store each in acid-free paper envelope, store envelopes in acid-free boxes
• Consider making prints or scans to preserve image
• Do not store multiple negatives in one envelope

POLYESTER NEGATIVES
• Can be stored in 3-ring or loose polypropylene negative sleeves or acid-free envelopes
• Do not store multiple negatives in one sleeve or envelope
Sound Recordings

- Store ALL LPs (of all sizes), compact discs, DVDs, and cassette tapes upright, standing on edge. Do not lay any recording flat.
- IDEAL storage conditions for magnetic tape (lifespan of 100-125 yrs): 46-50F, humidity 20-30%.
- LPs: Remove from paper sleeves and jackets (keep but store separately). Store LPs in polyethylene sleeves.
- Cassette tapes: Store in water-repellant plastic containers.
Moving Image Film

- **IDEAL** storage conditions for film & magnetic tape (lifespan of 100-125 yrs): 46-50F, humidity 20-30%.
- **Medium-term storage** (lifespan of 40-50 yrs): 65-70F, humidity 45-50%. Minimal exposure to light.
- **Cold storage conditions**: Must seal cans with archival tape; store in freezer bags; seal bag with tape; double-bag it and seal again. When removing for use, let sit at least an hour to acclimatize before opening bags.
- **Moving image reels**:
  - Store 16mm and 35mm on archival plastic cores (remove metal core).
  - Store 8mm as is.
  - Put film reels in clean archival plastic, archivally-treated metal cans, or new archival cardboard boxes.
  - Do not seal the enclosures UNLESS they are going into cold storage.

For more information, see: http://www.filmforever.org/
Handling Archival Materials:
Rules for Staff & Patrons

Use only pencils
(I prefer 4B pencils for writing on backs of photos)

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Handling Archival Materials: Rules for Staff & Patrons

Use book cradles for bound volumes, including scrapbooks.

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Limit patron handling of original copies of fragile, damaged, and/or valuable documents. Consider making a duplicate copy for patron use by photocopying, scanning, or microfilming.

Should staff & patrons wear cotton gloves when handling archival material?

- **YES** when working with photographs or moving image film.
- **NO** when working with other materials, as the cotton can catch on paper and tear it.
Preservation vs. Conservation

**Preservation** stops degradation of materials from progressing.

**Conservation** reverses degradation and restores materials to “original” state.

Archivists are **preservationists**. Conservation should only be done by trained professional conservators.
Can I Conserve Archival Materials Myself?

Short answer: NO!

Do not use de-acidifying sprays, tape, glue, or any other method to “repair” a photograph. Your goal is to preserve the photograph in its current state against further degradation.

Consult the American Institute of Conservation website at http://www.conservation-us.org to find a trained conservator who can repair your photograph or document.
National Archival Suppliers

Gaylord
http://www.gaylord.com

Hollinger Metal Edge
http://www.hollingermetaledge.com

University Products
http://www.universityproducts.com
Further Reading


Northeast Document Conservation Center (NEDCC) preservation leaflets & other resources: www.nedcc.org/resources/
Whom to contact for more information:

archives@uaa.alaska.edu
Archives & Special Collections
Consortium Library
University of Alaska Anchorage

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