

Lasting Impressions: Care of Traditional Photographs

Photographs increasingly are viewed as important resources for unique information about many facets of public and private life, as well as the natural world and the built environment. Whether your repository houses vast collections of photos or just a few “treasures,” here are some tips from the experts on care of traditional photographs.

You can significantly prolong the life of the photographs in your care by:

- Keeping them in cool, dry, dark, and clean storage environments
- Applying safe handling techniques
- Using appropriate-quality housing materials

This quick reference guide highlights the key factors involved in implementing these strategies.

Providing a Stable Environment

Storage Location:

- Keep photographs in a stable, cool (55-70 °F), dark, clean, and dry environment (30-50% relative humidity [RH]).
- Avoid storing photographs in attics, garages, basements, and spaces that are vulnerable to water leaks, such as directly below pipes or one floor below sinks.
- If photos must be stored in “risky” locations, first house them as described below, then place the boxed photos in high-quality plastic tubs with tightly secured lids.

Storage Conditions:

- Too-dry conditions (< 30% RH) make photographs brittle. Too-damp conditions (>60% RH) cause mold growth on photos.

- Even small environmental improvements help photos significantly. For example, by moving photos from a hot, damp attic (85°F and 80% RH) to a cooler, drier room (75°F and 60% RH), the photos will survive 3.5 times longer. Moving photos to an environment that is 68°F and 40% RH will increase their usable lifetime by a factor of 10.
- Air conditioners and dehumidifiers are good tools for achieving a stable, cool, dry environment – as long as they don’t leak and are kept mold-free.

Furniture:

- Use powder-coated metal shelving, vertical storage cabinets, or horizontal map cases.
- Avoid wooden, plastic, or composite shelving if possible, especially those with unfinished or freshly painted surfaces.

Lighting:

- Minimize the exposure of photos to both natural and indoor lighting. Keep light levels low (50-100 lux or 4.6-9.2 foot-candles) to reduce the risk of images fading and paper damage.
- Lower window shades, use ultraviolet (UV) filters on light sources, and avoid displaying photos under intense light.
- Protect framed photos by using glass or acrylic glazing with built-in UV filtering.
- Use window mats to keep photos from sticking to the glass or acrylic.
- Use copies of photos for exhibits, not originals.
- Put different images on display every few months to cut down on total light exposure.

Housekeeping:

- Clean storage and workspaces to prevent infestations of insects or mold and to prevent dust that can scratch image surfaces or contain mold spores.
- Use slightly damp, clean microfiber cloths without any cleaning chemicals. Then vacuum with a HEPA-filtered vacuum.
- When cleaning near photos, avoid all use of air fresheners, scented products, and chemicals, including bleach and ammonia.

Handling Photos

Do:

- Keep workspaces clean and uncluttered to provide a safe, flat surface on which to place photos.
- Keep your hands clean. Further protect images by wearing clean cotton or nitrile gloves to prevent image staining and fading from fingerprints.
- Hold photos gently but firmly without touching the image areas.
- Remove images from paper sleeves by flexing the sleeve and pulling it away from the image, rather than by pulling the image.
- Cover photos when not actively working with them to protect them from light and dust.
- Broken or cracked glass plates or photos with flaking emulsions should be stabilized by a conservator. Handle them as little as possible.
- Place a rigid support under fragile images before lifting or moving them.

Don't:

- Wear hand cream or lotion when working with photos.
- Touch an image surface (ie, an emulsion).
- Press or tap images together.
- Trace over an image or write on paper (such as the image envelope) directly over an image.
- Hold a photo by the corner or between your finger and thumb, as this can crease or crack the emulsion.
- Leave images uncovered for a period of time so that they are exposed to light or dust.

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Housing Photos

Selection of Materials:

- When purchasing boxes, envelopes, folders, or sleeves, look for materials that are acid-free, lignin-free,¹ and chemically inert.
- Avoid acidic adhesives that react with silver and chemicals, as they may stain gelatin.
- Select housing materials identified by suppliers as having passed the Photographic Activity Test (PAT)² specified in ISO 18916: 2007.
- Ideally use housing without seams or adhesives, such as four-fold or four-flap envelopes.
- If you use seamed envelopes, place the emulsion side away from the seam, as acidic adhesives in seams may cause damage.
- If you choose plastic materials, select uncoated polyester, polypropylene, or polyethylene.
- Never use albums that have self-adhesive magnetic pages.
- For cyanotypes (blue-line-on-white-background or white-line-on-blue-background images), don't use buffered paper housing.

Basic Techniques:

- House individual photos in protective enclosures (such as seamless envelopes, sleeves of lignin- and acid-free paper, or sheets of uncoated polyester, polyethylene, or polypropylene) to keep out gritty dirt and dust.
- Label the sleeve or envelope before placing the image inside.
- Place one image in each enclosure or use acid- and lignin-free interleaving.
- Keep all enclosures within a single box that is the same size as the box interior, even if this size is large for some images.

- Ideally store negatives, prints, and transparencies in separate boxes.
- Avoid using deacidification sprays, glassine, paper clips, self-stick removable notes, rubber bands, and unidentified glues and plastics, including plastic binders.
- The better organized a collection is, the more carefully it is likely to be handled – and therefore the more likely it is to survive!

Slides and Transparencies:

- Use uncoated plastic housing that is made of polyester, polyethylene, or polypropylene, or paper housing that is acid- and lignin-free.
- Don't use plastic housing if local humidity is uncontrolled, as emulsions may stick to the plastic.
- Once they are in enclosures, place the slides or transparencies in acid- and lignin-free folders and boxes or in acid- and lignin-free binders.

Prints:

- Use uncoated plastic envelopes/sleeves or acid- and lignin-free paper enclosures (or window mats) that pass the PAT test.
- Then place the prints in acid- and lignin-free folders, binders, or boxes for support. The boxes can be either shallow and horizontal (solander boxes) or vertical (document storage boxes).
- Use plastic only when the materials will receive a lot of viewing and the relative humidity is between 30% and 50%.
- Use photo corners to secure items in mats or arrange for hinging by a trained professional.
- Choose acid- and lignin-free paper when the prints are damaged, brittle, flaking, or distorted; when housing monies are limited; or when relative humidity isn't controlled.

Negatives:

- Use buffered paper sleeves/envelopes that have passed the PAT test, especially for acetate and nitrate negatives.
- Store the sleeved negatives vertically on their long edge in acid- and lignin-free boxes.
- Alternatively negatives may be placed in acid- and lignin-free binders or a file system without acidic adhesives.
- For non-acetate color film, use either uncoated plastic or acid- and lignin-free paper.

Cased Images:

- Place daguerreotypes, tintypes, and ambrotypes in paper envelopes, then flat in boxes.
- Store loose tintypes in paper enclosures.
- Boxes and enclosures must be acid- and lignin-free.

Albums:

- Use acid- and lignin-free boxes or slipcases that have passed the PAT test.
- Avoid albums with black or colored pages.
- Don't deconstruct albums and house the images separately. Instead, seek help from a conservator.

¹ Lignin is a naturally occurring acid in wood pulp paper that deteriorates photographs.

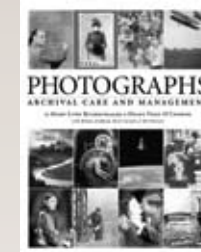
² Photographic Activity Test. Before buying any photo housing supplies, make sure that the supplier's catalog identifies them as having passed the PAT test – so you'll know that the supplies won't damage your photographs.

For More Information

Sources of Help:

Consult a conservator if photographs have extensive curling; if the image surface is soft, powdered, moldy, flaking, or cracked; if you find signs of insects or vermin or other stains; if the image is broken or torn; if the image has lifted off the film or glass; if the film smells like vinegar or acid; or if the photo is wet or smoke-covered. You can find a local conservator by checking the American Institute for Conservation of Historic and Artistic Works (AIC) website at: <http://www.aic-faic.org/guide/form.html>

Learn More:



Photographs: Archival Care and Management by Mary Lynn Ritzenthaler and Diane Vogt-O'Connor with Helena Zinkham, Brett Carnell, and Kit Peterson, Chicago: SAA, 2006.

Northeast Document Conservation Center,
<http://www.nedcc.org/resources>

Image Permanence Institute Storage Guides:
http://www.imagepermanenceinstitute.org/shtml_sub/cat_pubs.asp

SAA is especially grateful to Diane Vogt-O'Connor, Helena Zinkham, Dana Hemmenway, Adrienne Lundgren, and Andrew Robb of the Library of Congress for distilling their expertise on photo care and management into this simple checklist.