LIBRARY OF CONGRESS: TIPS FOR PRESERVING PHOTOGRAPHS

Preventing Deterioration:

1. Keep photographic materials at proper environmental conditions. Relative humidity is the single most important factor in preserving most photographic materials.
   A. Relative humidity levels above 60% will accelerate deterioration.
   B. Low and fluctuating humidity may also damage them.
   C. Conditions of around 68° F and 30-40% relative humidity are appropriate and easiest to maintain in enclosed areas, such as an interior closet or an air-conditioned room — not in an attic or basement.
   D. High temperatures and high relative humidity levels will accelerate deterioration.

2. Temperature, not relative humidity, is the controlling factor in the stability of contemporary color photographs. Storage at low temperatures (40°F or below) is recommended. Appropriate enclosures for cold storage are available from various vendors.

3. Exposure to visible and ultraviolet (UV) light is potentially damaging to photographs.
   A. Light can cause embrittlement, yellowing and color fading in prints and hand-colored surfaces.
   B. Extended display of photographs is not recommended; however if they must be displayed, use UV-filtering plastic or glass in framing.
   C. Exposure of color slides to the light in the projector should be kept to a minimum. Use duplicate slides instead.

4. Atmospheric pollutants, particularly sulfur compounds, will cause black and white images to fade and discolor. Gas by-products given off by fresh paint fumes, plywood, deteriorated cardboard and many cleaning supplies may cause accelerated image deterioration. Use non-acidic containers.

5. Handling Photographic Materials: Handling photographs improperly can cause disastrous damage, including tears, cracks, losses, abrasions, fingerprints, and stains. Avoid touching fragile photographic materials; salts in human perspiration may damage surfaces. Wear clean cotton gloves if possible when handling negatives and prints.

6. Storage of Photographic Materials: House photos in protective enclosures to keep out gritty dirt and dust that can abrade images, retain moisture, and deposit contaminants. Avoid and/or remove materials such as acidic paper or cardboard, polyvinyl chloride (PVC) plastic, rubber bands, paper clips, and pressure-sensitive tapes and rubber cement. Suitable storage materials should be made of plastic or paper, and free of sulfur, acids, and peroxides.
A. Paper enclosures must be acid-free, lignin-free, and are available in both buffered (alkaline, pH 8.5) and unbuffered (neutral, pH 7) stock. Storage materials must pass the ANSI Photographic Activity Test (PAT) that is noted in supplier's catalogs.

B. Buffered paper enclosures are recommended for brittle prints that have been mounted onto poor-quality secondary mounts and deteriorated film-base negatives. **Buffered enclosures are not recommended for contemporary color materials. Paper enclosures are opaque, thus preventing unnecessary light exposure; porous; easy to label in pencil; and relatively inexpensive.

C. Suitable plastic enclosures are uncoated polyester film, uncoated cellulose triacetate, polyethylene, and polypropylene.

Note: Photographic emulsions may stick to the slick plastic surface at high relative humidity (RH); **the RH must remain below 80% or do not use plastic enclosures. Plastic enclosures must not be used for glass plate, nitrate, or acetate-based negatives.

D. Prints of historic value should be matted with acid-free rag or museum board for protection. (Angle cuts should be white, not off white. Adhesives should not touch the print. Matting should be done by an experienced framer or under the direction of a trained conservator.

E. Store all prints and negatives that are matted or placed in paper or plastic enclosures in acid-free boxes.

1. If possible, keep negatives separate from print materials.
2. Store color transparencies/slides in acid-free or metal boxes with a baked-on enamel finish or in polypropylene slide pages.
3. Commonly available PVC slide pages, easily identified by their strong plastic odor, should never be used because of their extreme chemical reactivity.

F. Place early miniature-cased photographs, including daguerreotypes, ambrotypes and tintypes, carefully into acid-free paper envelopes and house flat; keep loose tintypes in polyester sleeves, or, if flaking is present, in paper enclosures.

G. Storage of family photographs in albums is often desirable, and many commercially available albums utilize archival-quality materials.

1. Avoid albums constructed of highly colored pages because they deteriorate quickly over time.
2. Never use commercially available "magnetic" or "no stick" albums for the storage of contemporary or historic photographic prints in black-and-white or color.