

Caring for Your Photographs

We often use the word photograph when referring to the photographic positive image on paper that is a familiar fixture in our daily lives. In reality, a photograph can be one of many processes in which light-sensitive media are employed to create a visible image. The prevalence of photographs allows us to forget that they are potentially fragile objects that can be easily damaged by careless handling, improper storage, and exposure to environmental influences such as light, humidity, and temperature.

In caring for a photographic collection, it is important to know that various components comprise the structure of a photograph. The interaction of these components, with each other and with their environment, has a lasting effect on the longevity of the image. Most photographs consist of a final image material, a binder layer, and a primary support. The final image material—commonly silver, platinum, organic dyes, or pigments—creates the image we see. The binder layer is a transparent substance such as albumen, collodion, or gelatin in which the final image layer is suspended. The binder and final image material are applied to a primary support, usually paper, glass, metal, or plastic. Although many photographs have this three-part structure, individual images may have additional components. For instance, applied color or coatings and original frames or cases need to be considered as part of the photographic object. Photographs have a complex structure. Unless you are familiar with this structure, consult a conservator before undertaking any major preservation projects.

Maintaining a Suitable Environment

Photographic materials benefit from a cool, dry, well-ventilated storage environment. High temperature and relative humidity increase deterioration and promote the growth of mold and mildew, which could mar surfaces and break down binder layers. Avoid storing photographs in the attic, the basement, or along the outside walls of a building, where environmental conditions are prone to extremes and fluctuations and where condensation may occur. In some storage situations, seasonal adjustments such as dehumidifiers in the summer or fans to promote air circulation may be necessary to improve problematic environmental conditions.

The optimal storage conditions for most photographs are a temperature of 68°F (or colder) and relative humidity in the range of 30–40%. Film-based negatives and contemporary color photographs benefit from storage in cooler environments of 30–40°F and 30–40% relative humidity.

Choosing Storage Enclosures

Keep photographic materials in enclosures that protect them from dust and light and provide physical support during use. Chemically stable plastic or paper enclosures, free of sulfur, acids, and peroxides, are recommended. Plastic sleeves should be constructed of uncoated polyester, polypropylene, or polyethylene. They should not be frosted. Paper enclosures should have passed the Photographic Activity Test (PAT), a test designed to

determine the safety of an enclosure in contact with a silver photographic image. If PAT test results are not available, choose paper enclosures that are lignin-free, 100% rag or alpha-cellulose fibers, and have a white or off-white color. Film-based negatives, which can produce acidic gasses as they age, should be stored separately from other photographic materials. Store cased objects, such as daguerreotypes and ambrotypes, in their original cases or frames with the addition of custom-made, four-flap paper enclosures to reduce wear and tear on fragile cases. Place individually housed prints, negatives, and cased objects in acid-free, durable boxes that will afford further protection from light, dust, and potential environmental fluctuations.

The storage of photographs in albums serves the dual purpose of organizing groups of images while protecting them from physical and environmental damage. Albums can be wonderful sources of historic and genealogical information. Preserve them intact when possible and store them in custom-fitted archival boxes. For the storage of family photographs, albums constructed with archival materials are available from conservation suppliers. Archival in this context is defined as a material that has passed the PAT test. Magnetic or self-adhesive albums can damage photographs and should not be used.

Displaying Photographs

Photographs should be protected from extended exposure to intense light sources. Limit exhibition times, control light exposure, and monitor the condition of the photographs carefully. Prolonged or permanent display of photographs is not recommended. Use unbuffered ragboard mats, and frame photographs with archivally sound materials. Use ultraviolet filtering plexiglass to help protect the photographs during light exposure. Reproduce vulnerable or unique images and display the duplicate image; in this way, the original photograph can be properly stored and preserved.

Housekeeping Guidelines

An overlooked area of collection maintenance is keeping the areas where photographs are handled or stored clean and pest-free. Paper fibers, albumen, and gelatin binders are just some of the components in photographic materials that provide an attractive food source for insects and rodents. It is vital that collection areas be free of debris that might encourage pests. Food and beverages should not be allowed. Apart from the potential for attracting pests, accidental spills can irreversibly damage most photographic objects.

Handling Procedures

Most damage to photographs results from poor handling. A well-organized and properly housed collection promotes respect for the photographs and appropriate care in handling. When images can be located quickly, there is less possibility of physical damage. The enclosures should be designed in relation to the intended use of the photographs, as well as their condition. For example, objects in more fragile condition require more extensive protection.

Establish handling procedures and adhere to them whenever photographs are being used. View photographs in a clean, uncluttered area, and handle them with clean hands. Wear clean white cotton gloves to lessen the possibility of leaving fingerprints and soiling the materials; however, be aware that gloves may reduce the manual dexterity of the user. Support photographs carefully and hold them with both hands to avoid damage. Keep photographs covered when they are not being viewed immediately. Do not use ink pens around photographic materials. Mark enclosures with pencil only. If it is necessary to mark a photograph, write lightly with a soft lead pencil on the reverse of the image. If a soft pencil will not write on the paper, use carbon ink in a hollow-point technical pen.

Disaster Preparedness

Disaster preparedness begins by evaluating the storage location and the potential for damage in the event of a fire, flood, or other emergency. It is important to create a disaster preparedness plan that addresses the specific needs of the collection before a disaster occurs.

The location and manner in which photographs are housed can be the first line of defense. Identify photographic materials that are at higher risk of damage or loss. Remove all potentially damaging materials such as paper clips and poor-quality enclosures. Store negatives and prints in separate locations to increase the possibility of an image surviving a catastrophe. Once a disaster occurs, protect the collection from damage by covering it with plastic sheeting and/or removing it from the affected area. If using plastic, make sure not to trap in moisture as this could lead to mold growth. Evaluate the situation and document the damage that has occurred. Contact a conservator as soon as possible for assistance and advice on the recovery and repair of damaged materials.

Common Concerns and Solutions

The following problems are commonly encountered in photographic collections:

Broken, torn, or cracked photographs: If the primary support of a photograph sustains serious damage, place it carefully in a polyester sleeve with an archival board support. If the photograph has a flaking binder layer or friable surface components, such as the pastel coloring often seen on crayon enlargements, place it in a shallow box, not a polyester sleeve. Do not use pressure-sensitive adhesive tapes to repair torn photographs. Consult a photographic materials conservator to perform repairs.

Soiled photographs or negatives: Do not clean photographs with erasers. Brush soiled photographs carefully with a clean, soft brush. Proceed from the center of the photograph outward toward the edges. Do not attempt to clean photographs with water- or solvent-based cleaners, such as window cleaner or film cleaner. Improper cleaning of photographic materials can cause serious and often irreversible damage, such as permanent staining, abrasion, alteration, or loss of binder and image.

Photographs or negatives adhered to enclosures: High-humidity environments or direct exposure to liquids can cause photographs to adhere to frame glass or enclosure materials. This is a very difficult problem to resolve, and great care must be taken to reduce the possibility of further damage. If a photograph becomes attached to adjacent materials, consult a photographic materials conservator before attempting to remove the adhered materials.

Deteriorated negatives: Chemical instability is a major factor in the deterioration of early film-based materials. If film-based negatives are brittle, discolored, sticky, or appear wavy and full of air bubbles, separate the negatives from the rest of the collection and consult a photographic materials conservator. A conservator will be able to help identify these materials and make recommendations for their safe storage and/or duplication.

Broken glass negatives or ambrotypes: Place broken glass carefully in archival paper enclosures. Use a separate, clearly marked enclosure for each piece to reduce the possibility of scratching or further damage. For long-term storage, construct a custom sink mat that holds the pieces of broken glass, separated by mat-board shims, in one enclosure. Consult a photographic materials conservator for assistance.

Resources

Baldwin, Gordon. 1991. *Looking at Photographs*. Malibu, CA: J. Paul Getty Museum.

Fortson, Judith. 1992. *Disaster Planning and Recovery: A How-To-Do-It Manual for Librarians and Archivists*. New York: Neal-Schuman Publishers, Inc.

Martin, Elizabeth. 1988. *Collecting and Preserving Old Photographs*. London: William Collins Sons & Co., Ltd. Northeast Document Conservation Center, Preservation of Library & Archival Materials, 3rd ed., www.nedcc.org

Porro, Jennifer, ed. *Photographic Preservation and the Research Library*. Mountain View, CA: Research Libraries Group, Inc.

Reilly, James. 1986. *Care and Identification of Nineteenth-Century Photographic Prints*. Kodak Publication G-2S. Rochester, NY: Eastman Kodak Co.

Schultz, Arthur W., ed. 1992. *Caring for Your Collections*. New York: Harry N. Abrams, Inc.

Wilhelm, Henry. 1993. *The Permanence and Care of Color Photographs*. Grinnell, Iowa: Preservation Publishing Company.

Prepared by Deborah Derby with assistance from M. Susan Barger, Nora Kennedy, and Carol Turchan, 1997. Revised in 2000.

For more information, contact:

American Institute for Conservation of
Historic & Artistic Works (AIC)
1717 K Street, NW
Suite 200
Washington, DC 20006
Telephone: (202) 452-9545
Facsimile: (202) 452-9328
E-mail: info@aic-faic.org
Website: <http://aic.stanford.edu>

The American Institute for Conservation of Historic & Artistic Works (AIC) is the national membership organization of conservation professionals dedicated to preserving the art and historic artifacts of our cultural heritage for future generations. Among other services of AIC is the Guide to Conservation Services, which provides a free list of conservators in your geographic region. The AIC brochure, Guidelines for Selecting a Conservator, will help you make an informed choice.

The recommendations in this brochure are intended as guidance only, and AIC does not assume responsibility or liability.

© 2000 AIC