

GUIDELINES FOR MATTING AND FRAMING PAPER AND PHOTOGRAPHS, PART I

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Introduction

Improper matting and framing can damage documents, artwork and photographs. Unfortunately, many framers are uninformed about proper materials and methods used in museum-quality framing. The following information can be used as a guide to help you find a knowledgeable framer. You may also wish to contact the American Institute for the Conservation of Historic and Artistic Works (AIC), 1717 K St., NW, Suite 301, Washington, DC 20006, 202/452-9545, for a list of paper and photograph conservators in your area who can recommend framers.

Window Mats

A mat is composed of a mat board window and a backboard of the same material, hinged together with gummed white linen tape. The tape extends along the entire top edge or left edge, whichever is longer. The thickness of the mat board should be at least 4-ply. Thicker mat board, multiple layers of windows, or an additional mat board spacer is often needed if the paper or photograph is cockled or distorted. Using one of these prevents the object from touching the glass or acrylic sheet (such as Plexiglas brand), known as the glazing.

Paper and photographs should never be framed directly against the glazing. This could result in the following problems: transfer of media to the glazing, the object sticking to the glazing, and mold growth and staining from condensation inside the glazing.

Specialty Mats

To safely imitate the historic look of an object framed without a window mat, place a hidden spacer composed of one or more layers of mat board or archival corrugated board under the rabbet edge of the frame, between the glazing and the object. If using colored, acid-free mat board, a fabric-covered mat, or the original acidic mat (which may be necessary if it contains important information, such as the artist's signature), place an interleaving layer of good quality white or cream mat board

between the mat and the object.

The safest fabrics to use for covering mats are unbleached, undyed cotton and linen. Use an archival adhesive, such as methyl cellulose to attach the fabric to the mat.

Sink Mats for Objects on Mat Board

For objects mounted on mat board, "sink mats" can be made by building up the edges of the backboard with strips of matboard or archival corrugated board, to form a "well" that fits the object. The top window mat covers the edges of the object in the well, to hold it in place.

Attaching Multiple Layers of Mat Board Together

Multiple layers of mat board in the spacer, window mat, or sink mat can be attached with #415 double-sided tape, made by the 3M Company. Linen tape and pressure-sensitive tapes, such as double-sided tape, cellophane tape or masking tape, should never be attached to artwork, documents or photographs. These tapes damage the objects and are difficult or impossible to remove after adhering to the object. Use archival quality, acrylic-based dry mount tissue to laminate layers of mat board together for a thicker mat.

Choosing the Right Mat Board

Three grades of mat board are available: 100% rag board, chemically purified wood-fibered board (conservation board), and the standard grade of mat board. The best quality mat boards are made of 100% rag, but the chemically purified wood-fibered conservation boards are also acceptable. The standard grade of mat board is made of acidic, poor quality wood pulp that will cause brown staining and deterioration of the paper or photograph, so it should not be used for matting anything of value. Mat board for paper objects should be alkaline buffered to a pH of about 8, and mat board for photographs should be unbuffered, with a neutral pH of 7. If possible, choose materials that pass the Photoactivity Test (P.A.T.), for

use with photographs.

A Test to Ensure That Mat Board is Not Acidic

Check the acidity of mat board and storage enclosures by marking a small fragment or corner with an Abbey pH pen and noting the color. These pens come with directions, and are available through many conservation materials suppliers. Never use the Abbey pH pen on valuable photographs or works on paper, because it will stain them. If the cut, beveled edges of a window mat turn brown with age, the mat is acidic and should be replaced immediately. Otherwise, the acids from the mat will migrate into the paper causing brown staining.

Finishing the Mat

Before hinging the object to the mat, erase all pencil guidelines on the mat board and dull the sharp inner edges of the window bevel with abrasive paper or a nail file. This helps to prevent cuts, indentions, and burnished areas on the item being matted. Make sure that the mat is larger than the object to protect the edges, and slightly smaller than the inside of the frame rabbet. A window mat should be at least 1 inch larger than the object on all four sides.

Hinges and Photo Corners

To hinge an object to the backboard of a mat, use two or more rectangular strips of Japanese tissue paper (100% Kozo fiber). A medium weight tissue, such as Kizukishi or Chochin, is appropriate for most average size works on paper.

Each hinge should be approximately 1/16 of the width of the art. One-third of the hinge is attached to the back upper edge of the object with diluted, gluten-free wheat starch paste, and the other two-thirds is pasted to the backboard. Attach the hinge to the artwork first, smooth it firmly into place with a dry bristle brush, and place it to dry between two blotters. To avoid cockling, place the sandwiched object under a square of glass with a one or

two pound weight on top. Change the blotters several times within the first two minutes to prevent sticking and to speed drying. For further protection against sticking, use an interleaving material such as Hollytex between the hinge and blotter. Allow all hinges to dry for at least four hours. Then position the artwork in the mat, apply paste to the top two-thirds of the hinges, and attach them to the backboard of the mat. Dry the hinges under Hollytex, blotters, glass, and weights, changing the blotters several times as before.

Most smaller objects need only two hinges (placed near the upper corners along the top edge), but larger works can require three or more. If the window mat covers the edge of the object (allow at least 1/8" overlap), the hinges are pasted to the mat board above the object, pendant style. However, if the object is "floated" in the mat, so that all edges are exposed, the hinges are folded under and attached. With folded hinges, place pieces of Mylar Type D between the object and hinge during drying to prevent sticking.

If you don't have experience with this type of hanging, practice on a variety of papers before trying it on a valuable object. It takes a certain level of skill to avoid getting distortions or staining in the hinge area. One way to prevent this is to place a piece of blotter beneath the hinge before brushing on the paste. The blotter will absorb some excess moisture. If the hinge is still too wet, allow it to air-dry briefly.

An alternative to hinges is photo corners. They are particularly useful for heavier objects and photographs, especially resin-coated paper (RC) photographs. Photo corners can be made of Mylar Type D, Japanese tissue, or archival quality paper. Mylar corners can be attached to the backboard with 3M #415 double-sided tape. Paper corners cut from Japanese tissue or archival quality paper can be attached with gummed white linen tape. Neither type of tape should come in direct contact with the artwork. Use Mylar photocorners only with objects on mat boards or heavier photographs. Otherwise they can cause tears and distortions when used with thinner, more delicate objects.

Never attach valuable photographs or works on paper directly to the window mat or backboard. Always use hinges or photocorners instead of adhesives, spray mount, pressure-sensitive adhesive tapes, or dry mount tissue. Pressure-sensitive "archival"

tapes are not recommended for hinging and repairing valuable objects.

If the matted object is stored without a frame, place a cover sheet of smooth lightweight rag paper between the object and the window. Buffered or unbuffered paper is acceptable for most works on paper, but cover sheets for photographs should be unbuffered and pass the P.A.T. If the artwork has a powdery media, such as pastel or charcoal, it is better to store it with a mat board cover over the front of the window, instead of placing a cover sheet directly on top of the artwork.

Store unframed paper or photographs flat, in archival quality folders and boxes. Never store them vertically.

An Easy Microwave Recipe for Wheat Starch Paste

One tablespoon of wheat starch powder (not instant)
Five tablespoons of distilled water

Place the water in a deep, clean plastic or glass container. Gradually mix in wheat starch powder while stirring. Microwave on high for 20 to 30 seconds. Remove and stir. Microwave for another 20 to 30 seconds. Stir again. Continue this process for three to four minutes. After cooking, the paste should stand for a few minutes to cool before using. Strain out any lumps with a clean, fine mesh plastic strainer. To use, thin the paste with water to the consistency of cream. To test the tack of the thinned paste, put a little between your thumb and index finger. Rub fingers together, and slowly separate them at intervals. As the paste dries, the fingers will tend to stick together. The right consistency of paste will give a slight amount of tack or resistance to being pulled apart.

A Partial List of Conservation Suppliers

Archivart, Division of Heller & Usdan, 7 Caesar Pl., Moonache, NJ 07074, 201/804-8986 (Photo-Tex cover sheets)

Bookmakers, 6001 66th Ave., Suite 101, Riverdale, MD 20737, 301/459-3384 (variety; especially Japanese tissues, books)

Gaylord Brothers, Box 4901, Syracuse, NY 13221-4901, 800/448-6160 (variety)

Light Impressions, 439 Monroe Ave., Rochester, NY 14607-3717, 800/828-6216 (especially for photographs)

Small Corporation, PO Box 948, Greenfield, MA 01302, 800/392-9500 (matboard, archival corrugated board)

TALAS, 213 West 35th St., NY, NY 10001-1996, 212/736-7744 (especially wheat starch paste and preservation books)

University Products, Inc., PO Box 101, 519 Main St., Holyoke, MA 01041-0101, 800/628-1912 (variety)

Training Opportunities

The Campbell Center for Historic Preservation Studies offers courses on conservation matting and framing. This type of training is eligible for funding, primarily for staff and volunteers of small, rural and minority museums, from the Institute of Museum Services' Technical Assistance Grants (TAG) program. For a schedule of courses contact the Campbell Center at PO Box 66, Mount Carroll, IL 61053 (815/244-1173). To obtain a TAG grant application contact IMS at 1100 Pennsylvania Ave., NW, Washington, DC 20506 (202/606-8539).

Bibliography

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Part II of "Guidelines for Matting and Framing Paper and Photographs" focuses on framing and will be published in the January 1995 issue of MUSENEWS.

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