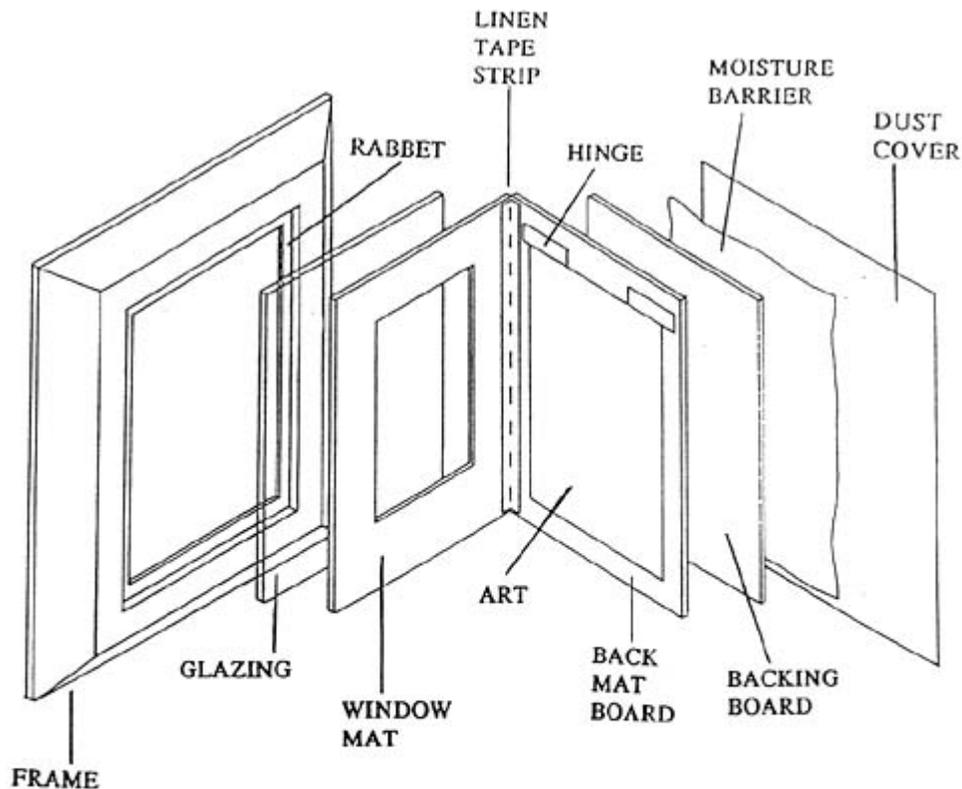


# MATTING AND FRAMING SPECIFICATIONS FOR OBJECTS ON PAPER

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## MATTING AND FRAMING PACKAGE

Paper, an organic material often used as a support for works of art and photographs, is subject to degradation and damage from many sources. Many papers manufactured after the introduction of wood pulp in the mid-19th century degrade inherently, due to the presence of the acidic wood products. Even good quality rag papers can deteriorate due to external factors such as light, air pollution, mold and insects. In addition, paper can be affected by the migration of harmful components from unstable materials with which it is in prolonged contact - wood, tapes, cardboard, and poor quality mat boards.

Proper matting and framing in combination with appropriate environmental conditions do

much to prevent damage to works of art on paper. The frame and mat have a dual purpose: first, to house and protect the object, and second, to aesthetically enhance it. How a paper object is matted, and what it is matted in can make a big difference in its preservation. Use these specifications when considering the materials and techniques for framing collection items through any picture framing service, whether a commercial frame shop or an institution's in-house preparator/technician.

Conservators agree that the safest preservation mat board available is manufactured from 100% rag stock. Framers often sell products called "Museum Board" or "Archival Paper", but the content of these should be examined. Some boards have only a rag paper facing over a poor quality filler board and are not acceptable.

Best quality mat board is made from **cotton fiber**, and should be free of lignin, groundwood, metal particles, and coloring agents. The board should be of **neutral or slightly alkaline ("buffered") pH**. The additional alkalinity is insurance against acid migration and oxidation over time. The buffering agent is usually 3.5 % calcium carbonate impregnated in the mat board. Buffered mat board can be used for all paper-based objects stored in ordinary interior environments with one caveat: very light-sensitive photographic processes, such as blueprints and collotypes, can be distorted by the calcium carbonate in high moisture conditions. Use rag mat board without buffering agents for these objects, but remember, they should not be exhibited for any length of time because of their light sensitivity.

Another beneficial feature of a good mat board is the inclusion of **zeolites**. Zeolites are molecular sieves that continue to absorb off-gassing and oxidizing agents from within the frame's microenvironment, offering continuing protection to the matted object over time. The proprietary name for zeolites is MicroChamber technology. Bainbridge ArtCare is a buffered mat board impregnated with zeolites and is the primary mat board used at CCAHA.

The thickness of the mat board selected affects the condition of the framed object, also. It is important that there be as much space as possible between the art and the glazing so that the art or its media have no chance of transferring to the glazing. Also, water from the air can condense on glass surfaces.

**8-ply mat board** is preferred over 4-ply because it allows for better air circulation within the frame, by creating more space between the art and the glazing of the frame. It is also more dimensionally stable, and not as likely to warp as 4-ply. 4-ply board is the minimum acceptable ply. 2 ply board would only be used as a barrier layer to separate an object from an acidic original mat board.

CCAHA prefers to use **white or off-white** board to avoid potential problems, such as bleeding or off gassing of chemicals, associated with colored boards.

### **Backing Board**

The object should be attached to a backing board of quality 4-ply mat board. An object should never be attached to the window mat; when the window mat is lifted, the object should lay safely on the backing board. The window mat should be hinged to the backing board at the top or at the left edge to secure it in place.

## **Rigid Back Board**

The backing board to which the object is mounted should be backed with a second, rigid backing board. This should be a good quality board, such as ragboard or **acid-free** blue corrugated cardboard; Masonite, regular cardboard and other acidic products are not acceptable. The edges of corrugated board should be taped with an archival quality tape to prevent bugs from taking up residence. The board should be a **single sheet** cut (not pieced) to fit the inside frame dimension.

## **Mounting**

An object can be attached to the backboard in one of three ways: corners, hinges or edge strips. All of these methods require a window mat to add additional support to the object.

1. **Corners (aka photocorners)** can be purchased from conservation or picture framing suppliers. They can be made of rag paper or archival Mylar with pressure sensitive adhesive.
2. For **hinged mounting**, the object is attached to the backboard using small feathercut rectangles of Japanese mulberry tissue attached to the upper corners of the back of the object with wheat starch paste. When these have dried, the other half of the hinges are attached to the backboard. The object should never be pasted directly to the backboard, nor should it be attached in any way to the window mat. The tissue and paste are used because they will not harm the object - tapes and other types of adhesives are not safe.
3. **Edge strips** are folded channels of acid-free paper that gently restrain all four edges of the object. The channels can be purchased ready-made with pressure sensitive adhesive, or can be constructed by folding acid-free tissue and secure the edges with gummed linen tape tabs.

## **Glazing**

For protection against airborne dirt and pollutants, picture glazing is essential. CCAHA recommends **acrylic glazing** for most picture framing. The current standard for paintings on canvas is to glaze them as well, with spacers holding the glazing away from the object. Ask for an acrylic glazing that contains filters for ultraviolet (UV) light; these are called UF-3 and are available under a variety of trade names such as **Acrylite OP-3**. Even though you are using a UV filtering glazing, don't assume that the object can be exposed to lots of light - ultraviolet is only a part of a wide light spectrum which damages organic materials.

Drawbacks of acrylic glazing are that it scratches easily, and collects dust due to its static quality. If glare is a problem in the exhibition space, **TruVue Optium** is a museum-quality acrylic glazing with UV filters and reduced glare optical coating.

Objects that have friable, loose or flaking media, like pastels or deteriorating photographs or paintings, cannot be glazed with acrylic because its static charge will attract particles and must be framed with single strength picture glass.

## ***Frame***

The frame should be deep enough to accommodate the glazing, matted object plus backing board without undue pressure. The frame can be wood, metal or composite materials. The corners of wood and composite mouldings should be both glued and fastened with nails, thumbnails, or other metal or plastic fasteners; neither glue alone, nor mechanical fasteners alone are sufficient to hold wood or composite frame corners together over time.

## ***Fitting***

The whole package should be secured in the frame by means of non-rusting brass nails or turn-buttons. The frame can then be dust sealed with a thick, good quality paper and gummed linen tape. It is a good idea to attach small "bumpers" to the lower corners of the back of the frame to hold it out from the wall, permitting some air circulation behind the frame.

Save any labels or inscriptions from previous framing if they provide information about the piece. These can be encapsulated in a polyester film (Mylar) envelope or placed in an acid-free paper envelope and attached to the backboard. Record on the backboard when the piece was framed, and what materials were used, especially whether the glazing is glass or plastic.

## ***Hangers***

A frame can be hung with screw eyes and coated picture wire or D-rings and coated picture wire. Hanging hardware on the wall could be picture hooks or anchored screws.

D-rings on the two side rails or special locking security hardware can be used also, but they require more specialized installation. Saw tooth hangers on the top rail are unacceptable. The hanging weight of the frame must be borne by the two side rails.

## ***Conclusion***

When framing works on paper, recognize that the high standards outlined here are not routinely practiced by all commercial framers. However, there are many qualified framers who are familiar with conservation matting and framing techniques. Commercial picture framers must be instructed to use the preservation materials and techniques outlined here and the completed frame and work record should be inspected to confirm that the specifications were followed.