FRAMING OF ART ON PAPER
Design Considerations

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While picture framing is related to art, the two should not be confused. Art is subjective, expressive, with emphasis on originality. Framing, on the other hand, is mostly technical. It is objective, not subjective; expression may compete with the art, and originality can lead to the use of potentially-damaging, untested methods and materials.

We enjoy and appreciate framed art, but most of us have little understanding of the technicalities of framing. We know there is moulding and glass, and it all stays in one piece on the wall. Beyond the visual aspects, framing is often misunderstood.

The first thing to know about framing is that it should make the art look good. Presentation is what catches your attention. Good presentation enhances the art; bad presentation can kill it. Choices of presentation should provide a background that draws the observer's eye to the art, but should not overpower or compete with the art. Artists may wish to make framing presentation an "extension" of their own artwork; but the rest of us should not make such attempts.

The second thing you should know is that framing is supposed to take care of the art. Preservation is important, because most damage to art on paper is caused by improper framing. Presentation mistakes can always be corrected, but mistakes in preservation are usually permanent, leading to complete destruction of the art in some cases. Technical advice from a PPFA-Certified Picture Framer or other qualified expert is advised. Beware of picture framers who have years of experience doing it wrong - they are plentiful. Check credentials and references.

Design is the first step of picture framing, when choices are made about how best to present and preserve the art. Done well, framing design is a thoughtful process and your art deserves the effort.

The following offers information about the materials and methods used in picture framing. With this, you can better understand what goes into a good picture frame and avoid common mistakes.

Matting

Purposes

Separate glazing (glass) from the art surface This is important because moisture will condense where there is no air gap, inviting mildew and mold. Also, if fugitive media are used (charcoal, chalk, pastel, etc.), a gap of at least 1/4" is needed to keep static electricity from pulling medium from the art and onto the glass. Multiple mats increase gap depth, as needed.

Provide a visual background For this purpose, the wider the mat, the better. If the mat overpowers the art, then mat color is wrong. Mat width affects the visual importance of the finished piece.

Coordinate colors You can emphasize certain colors in the art and help it fit into the chosen surroundings.

Color choice

Top mat should be neutral in color, and of less color intensity than the art. If the top mat dominates, it will distract from the art.

Additional mats beneath the top mat can be used to provide accents for color coordination with surroundings or to emphasize certain colors in the art.

Mat width

- Narrow mats are usually more distraction than enhancement.
- Wide mats create focus toward the art.

Decoration

- This is a matter of opinion; mat decoration can enhance or detract from art. Common techniques include ink lines, marbled paper, V-grooves, watercolor, fabric panels. Be imaginative, but conservative with mat decoration.

Cutting Methods

- Rectangular openings are typically made with a beveled edge, showing the mat's core board. Most professional framers use expensive mat cutting machines. The beveled edges can be cut in reverse, so they do not show.
- Oval or round openings can also be cut with beveled edges, as above. Expensive, special mat cutting machinery is required; some framers do not offer oval/round cuts; others contract them out.
- Hand cut mats are now uncommon, because most needs are met with specially made tools. Like hand lettering, hand cutting of mats is an old skill which stands out today. Done well, they are visually effective; done poorly, they are a mess.

Matboard Types

- Wood pulp paper is the standard matboard material. It is now buffered with calcium carbonate to retard acid burn. Low price. Not suitable for preservation.
- Alpha-cellulose paper is highly purified wood pulp (all lignin removed). Higher price than standard matboard. Suitable for preservation, if buffered.
- 100% Rag paper has no wood pulp; usually made from all-cotton fibers. It is also buffered, but has no inherent acid content. The core is usually pure white and will not discolor with age. The best matboard available. Suitable for preservation.
- Specialty matboards such as black core, colored core, fabric covered, and textured surfaces are usually made with standard wood pulp paper.

Methods

Preservation mounting is the ultimate; the only method endorsed by all preservation authorities. Usually, the art paper is hinged at two or more points along its top edge by special Japanese paper

and starch paste, to 100% rag board backing. Other preservation-grade mounts may be devised as needed, but must meet these criteria:

- No permanent changes to the artwork; mount must be completely reversible with non-destructive methods and materials.
- All materials in contact with the artwork must be 100% rag or alpha-cellulose board. Minimum acceptable barrier is 4-ply (standard matboard thickness).

Hinge mounting uses linen, paper , or special tape to fasten top edge (only) of artwork to backing; usually reversible & causes little damage to artwork, but adhesives and materials are not preservation-grade.

Wet mounting uses water-base adhesive (similar to wallpaper paste) to glue paper down to a backing board. Considered permanent, but might be reversed by soaking artwork in water. Best done with a vacuum press.

Dry mounting uses heat activated adhesive tissue and a heated press, with or without vacuum. Considered permanent; sometimes reversible with heat or solvents.

Spray mounting uses solvent-base aerosol adhesive. Considered permanent; sometimes reversible with solvents. Best done with a vacuum press.

Sink mount is a "nest " beneath the mat, for art that is thicker than normal. Usually, adhesives are not in contact with artwork; this may be an acceptable preservation-grade mount if 100% ragboards are used to make the sink.

Photo corners may be purchased or custom-made to fit. Good for photos and other rigid-paper art. Gravity works against these mounts; art paper may sag and wrinkle horizontally.

Mounting Boards

Matboard is often used as a backing board for mounting. It may be standard wood pulp, alpha-cellulose or 100% rag, depending on quality requirements of the project. For large pieces, added backings may be needed for stiffness.

Foam-center board is Styrofoam with paper covering on both sides; smooth white surface; limited acidity. Also available with acid-free or 100% rag paper covers, but never preservation-grade because of out-gassing problems.

3X board is heavy cardboard (similar to illustration board) with smooth white surface; acidic wood pulp paper.

Recommendations

Preservation mounting should be used for all original art, collectible prints, and items of sentimental value.

Wet mounting under vacuum is recommended for porous paper which has no significant value, such as posters & maps. Most stable over time. NOTE: backing board may warp, if not framed.

Dry mounting is recommended for photos and other non-porous paper artworks which have no significant value. Over time, drymount tissue may deteriorate and loosen the mount in spots.

Other mounting methods and materials should be chosen when most appropriate for the art, equipment and materials available.

Avoid the use of mounting materials unsuited for the purpose:

- Masking tape - acidic; adhesive made for temporary uses.
- Rubber cement - acidic; causes discoloration; deteriorates rapidly.
- Very acidic materials like corrugated cardboard, Masonite, plywood.

Wood

- Usually manufactured and factory-finished for framing.
- Endless variety of sizes, shapes, colors.
- Prices range from $2.00 to $300.00 per foot; typical price about $8.00/ft.
- Methods of joining corners:
    - Glue & nail with brads; miter-vice needed - results vary.
    - Glue & V-Nail; special machine needed - very secure results.
    - Glue & plastic inserts; ends must be routed with special tools (Final assembly can be done without tools). Secure results.

Aluminum

- Extruded in limited shapes and sizes.
- Finished by anodizing or painting; many colors & finishes available.
- Prices range from $4.00 to $30.00 per foot; typical price about $6.00/ft.
- Corners joined with steel compression-type hardware.

Plastic

- Usually polystyrene.
- Molded or extruded; usually smooth finish.
- Prices range from $1.50 to $15.00 per foot; typical price about $5.00/ft.
- Corners joined with special glue (very strong bond); nails optional.

Glass

- Clear picture framing glass is most common and least expensive for general purposes. Often called "regular" glass, but should not be confused with lower-quality window glass.
- Non-glare glass is about twice the price of clear glass. Its etched surface blurs the image when viewed from side angles, especially when glass is properly separated from the art surface; more separation, more blur.
- Ultraviolet-filtering glass is available clear or non-glare, and is recommended for all preservation projects. It is coated inside to filter out more than 95% of harmful UV light, which causes fading. UV rays are in all light, but very strong in sunlight and fluorescent light. Cost of UV-filtering glass is about the same as non-glare glass.
- Reduced-reflection glass is available with or without UV-filters. It is not etched like non-glare glass, but is coated on one or both sides. The metallic coatings disperse reflected light and allow better clarity that any other glazing. In some conditions, it looks like there is no glass at all. This is relatively new to the framing industry, and is not yet available with UV filters. Cost is 4 to 10 times that of regular glass.

Plastic

- Acrylic looks similar to glass, but costs more. It is available with or without UV filtering. Advantages: Acrylic has the weight and twenty times the shatter-resistance of glass. Optically coated acrylic is nearly invisible and has no static charge. Acrylic is available with a special treatment for abrasion resistance. Disadvantages: Standard acrylic scratches easily; makes static electricity (deadly for fugitive media).
- Styrene is a cheap substitute for acrylic, with similar characteristics. It looks the same when new, but becomes yellow and brittle with age.

Flexible laminates
may be used on posters, photos, other easily-replaced, disposable or temporary art. Laminates are thin vinyl with adhesive on the back, and come in several textured, matte or glossy surfaces. Some kinds have pressure-sensitive adhesive, which can be applied with a brayer. Others have a heat-activated adhesive, designed for application in a drymount press. Laminating is permanent and should not be considered for any preservation project.

The availability of framing materials and acquisition costs (travel time, packaging & shipping, payment options, etc.) can be determining factors in frame design. If you are doing it yourself, design your frames to use materials you can buy easily and confidently.

Mouldings

- Custom Built by professional framer, to fit your art.
- "Chops" may be purchased cut-to-size; corners are mitered and ready to join.
    - Wood chops are usually routed for plastic inserts (such as Thumbnail brand), which are included; you can assemble at home without special tools.
    - Aluminum chops need a package of corner hardware; often ordered separately.
    - Plastic chops can be glued securely with "super glue" (gel-type).
    - Sources:

        - Custom framers
        - Mail-order
        - Craft/hobby stores
        - Photographic supply stores
- Ready made frames; usually inexpensive, often made overseas, sometimes look cheap.
    - May include glass, backing, hanger.
    - May be "open frame" (moulding only, corners joined).
    - Sources:
        - Custom framers
        - Craft/hobby stores
        - Photographic supply stores
        - Discount stores
    - Standard sizes for ready made and open frames usually correspond to standard photograph sizes. The following are suggested ready made frame sizes, with mats, for various art image (mat opening) sizes:

FRAME SIZE	ART IMAGE SIZE	MAT WIDTH
3 x 5	3 x 5	none
4 x 6	4 x 6	none
5 x 7	3 x 5	1"
8 x 10	5 x 7	1-1/2"
10 x 13	7 x 10	1-1/2"
11 x 14	8 x 11	1-1/2"
12 x 16	8 x 12	2"
14 x 18	9 x 13	2-1/2"
16 x 20	10 x 14	3"
18 x 24	12 x 18	3"
20 x 24	14 x 18	3"
24 x 36	16 x 28	4"

Mats / mount boards

- Full sheets & ready-made in standard sizes:
    - Art supply stores.
    - Custom framing shops.
    - Craft / hobby stores.
    - Photographic supply stores.
- Mats custom-cut to fit:
    - a. Custom Frame shops.
    - b. Do-it-yourself with hand-held cutting tools.

Glass

- Hardware stores - usually offer only window glass, inferior to picture glass.
- Custom framing shops - offer all varieties.
- Glass specialty companies - usually offer only window glass.

Other materials

- Custom framing shops - offer everything you need.
- Hardware stores - hanging hardware, wires, bumpers.
- Art supply stores - Tapes & other adhesives, boards.

About size

- Framing costs vary by size of the frame. Framers use a measure called "United Inches"(UI) for calculating prices. United Inches refers to half of the frame's perimeter; in other words, UI = height + width of frame's rabbet perimeter (where frame's contents fit). For example, 16" x 20" frame = 36 UI.
- Most sheet materials come 32" x 40". Anything over this is called oversize. Cost is higher for oversize materials. Mat color options are greatly reduced. Also, larger items are more difficult to handle and store, so labor cost is higher, as well.

Fitting (assembly of all parts)

- Wood and plastic frames - To hold all the parts in, use glazier's points, small brads, or staples driven partially into the inside of the moulding. If the frame is over-filled, you will need offset clips (see your framer).
- Metal Frames - Parts are retained by the moulding itself, but will be very loose. To hold parts tightly against the front of the frame, use specially-made spring clips, available wherever metal mouldings are sold.
- Dust cover should be provided for all frames. Cover the entire back of the frame with inexpensive paper or cloth (Black Kraft paper looks good.) This will improve appearance, but more important, it will seal the frame against dust and insects.
- Bottom corners of the frame should have small bumpers to: A. Keep frame edge away from wall for air circulation; B. Keep the frame from sliding easily on the wall; and C. Protect wall surfaces/coverings.

Hanging hardware

- Sawtooth hangers are OK for small frames, but are inadequate for frames larger than 8" x 10".
- Generally, wire is best for frames up to a weight of 30 lbs. Stainless steel or coated wires are stronger, will not rust or corrode, and will avoid marks on walls. Make sure ends are securely fastened to screw-eyes, and that they are securely fastened to the frame. Use proper size picture frame hangers, not just a nail in the wall.
- For frames over 30 lbs., use separate hangers on each side of the frame back, and no wire. If a wire is used on a heavy frame, the sides pull toward the center, and corner joints are strained; also, top and bottom rails of the frame tend to bow.