

Nonadhesive Mounting Methods for Photographic Prints

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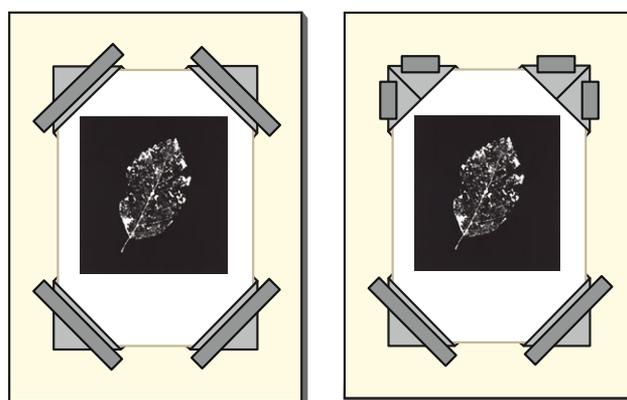
The attachment methods illustrated in this highlight provide a few of the many methods that can be used for mounting photographs in a window mat without the direct application of adhesives. These techniques are reversible and can be used for moisture-sensitive photographs, including platinum prints. These nonadhesive methods employ paper corners or edge strips that overlap the edges of a photograph—or its mount—to attach it to a back mat. The corners and strips are then covered (“over-matted”) with a window mat.

Materials for Nonadhesive Mounting

The following general guidelines provide information about selecting materials for nonadhesive mounting and cautions about their use.¹

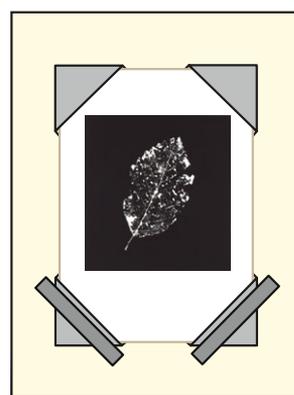
- Use archival-quality products sold by trusted suppliers of conservation-grade materials to house photographic prints.
- Select midweight papers (40–90 gsm) that are neutral (pH ~7) and free from acids, lignin, and abrasive particles.
- Use acid-free adhesives, such as gummed linen, cotton, or paper tapes, and water-activated acid-free adhesives such as starch paste.
- Take special precautions with water-activated adhesives and tapes to be certain the adhesive is thoroughly dry before inserting the photograph. Dry these adhesives under blotters and weight to ensure adhesion and prevent distortion of the attachment corner or strip. Always place a polyester film barrier sheet between the paper corner and photograph’s surface before applying the adhesive, and carefully remove the polyester film when the adhesive has dried. Starch paste and archival-quality polyvinyl acetate (PVA) adhesives have greater shear strength and so provide better support than tape, especially when the photograph is large, mounted, thick, and/or heavy.
- Use pressure-sensitive tapes only if they are the sole practical option for attachment. Be aware that over time, the chemical components of pressure-sensitive adhesives may migrate through the paper corner and transfer to the print or ooze out the sides and come in contact with the print. Due to their low shear strength

Figure 1. Schematic of photographs mounted with various corners.

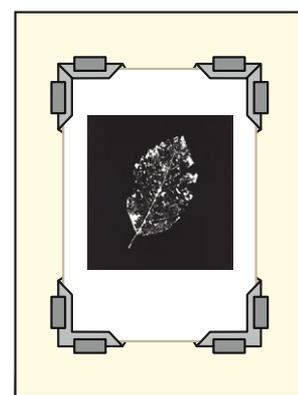


1a. Standard corners.

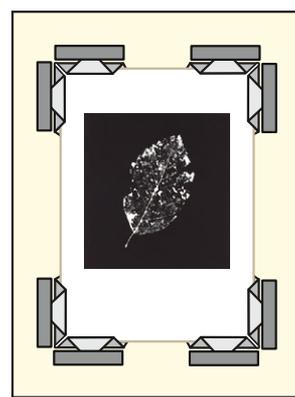
1b. Fold-out corners at top; standard corners at bottom.



1c. Wraparound corners at top; standard corners at bottom.



1d. Notched fold-out corners at top; notched standard corners at the bottom.



1e. Fold-out corner with flaps at all corners.

and potential for cold flow, these adhesives may slip under the weight of the print.

- Ensure that all materials have passed the Photographic Activity Test (PAT)² and meet the specifications described by the International Organization for Standardization (ISO).³

Photo Corners

Photo corners are folded strips of paper that form triangular pockets to cover and secure each corner of a photograph to a back mat. Five photo corner methods are presented here: standard corners, fold-out corners, wrap-around corners, notched corners, and fold-out corners with flaps (fig. 1). Standard corners are most common and provide the most support. Fold-out and wraparound photo corners allow a photograph to be removed and replaced from a back mat without changing the attachment technique or removing the corners. These corners are used only at the top of a photograph and are often paired with standard corners on the bottom to provide necessary support.

The size of a photo corner is determined by the photograph's dimensions. For example, 1 inch deep photo corners may be suitable for mounting small photographs (up to 8 × 10 inches), while 3 inch deep corners may be needed for larger photographs (+/- 16 × 20 inches). The height of the paper strips used will dictate the final size of the photo corners. For example, a 1 × 2 inch strip of paper will make one photo corner that is 1 inch deep with no protruding tabs. Increasing the length of the paper strip provides the tabs needed for wraparound corners, or, if desired, for standard corners. Standard corners and fold-out corners can be notched to reveal more of the photograph (see fig. 1d) while still providing necessary support at the edges.

Standard Corners

Step 1. Start with a straight-cut strip of an appropriate paper (fig. 2).

Step 2. Place the paper strip lengthwise on the work surface; then fold the top right corner down to form a right triangle (see fig. 2). Fold the paper strip to form a triangular pouch (fig. 3). If desired, cut out a notch to reveal more of the print (fig. 4).

For standard corners, either leave the tabs or trim them off (see fig. 4). When making fold-out corners, always trim the tabs. When making wraparound corners, leave longer tabs, as these will be tucked in behind the mounted print.

Figure 2. Straight-cut strip of archival paper.

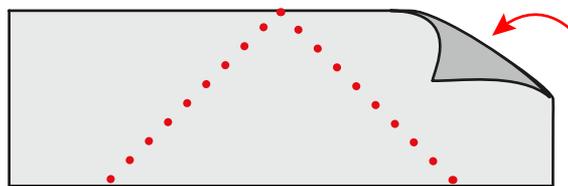
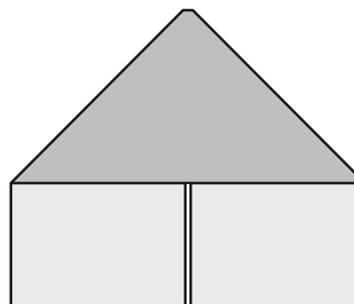
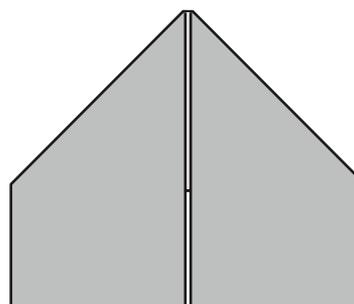


Figure 3. Standard corner.

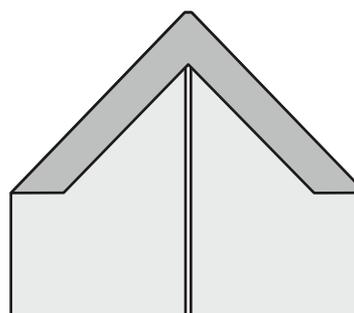


3a. Front.

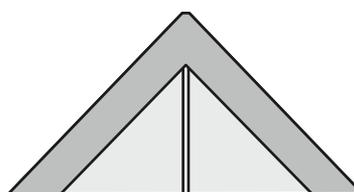


3b. Back.

Figure 4. Notched standard corners.



4a. With tabs.



4b. With tabs trimmed away.

Figure 5. Corner with increased depth to accommodate thick or mounted prints.

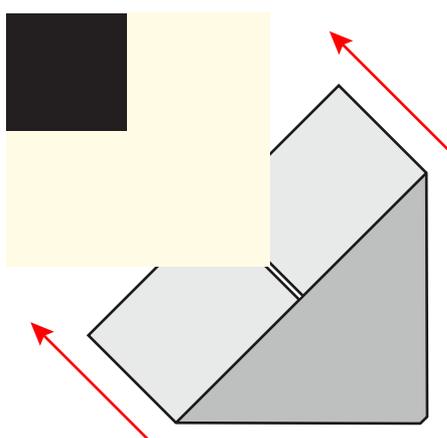
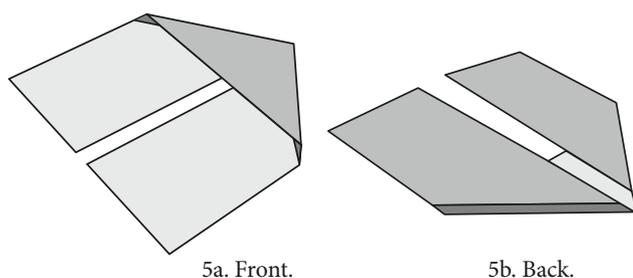


Figure 6. Positioning a standard corner.

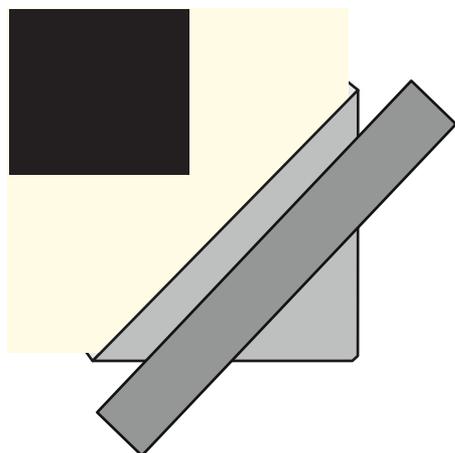


Figure 7. Positioning archival tape to secure a standard corner.

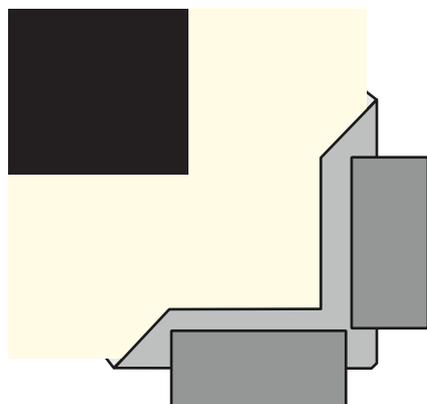


Figure 8. Positioning archival tape to secure a notched standard corner.

If the print is thick or mounted, score and crease the sides of each corner to accommodate the depth of the object (fig. 5). A deeper corner provides adequate support for a thicker object and helps to prevent damage to the photograph and/or mount and any tearing of the photo corner.

Step 3. Repeat steps 1 and 2 to make the number of corners needed.

Step 4. Place the photograph face up on a prepared back mat, and position the image in the window mat. Secure the photograph in place with a small, soft weight, first placing a small piece of clean archival paper or nonwoven polyester between the weight and the photograph to protect the print's surface. Never put any weight on a photograph with a sensitive or damaged surface.

Step 5. Place the standard corners with the opening to the back of the print (fig. 6). Carefully slide the pocket of each corner over each corner of the print.

Step 6. Secure the corners to back mat using archival tape. Position the tape diagonally across the photo corner, ensuring that the tape is back at least $\frac{1}{8}$ inch from the edge of the corner (fig. 7). If the corner has been notched, place a piece of tape on each side of the photo corner, using care to prevent the tape from coming into contact with the photograph (fig. 8).

Fold-Out Corners

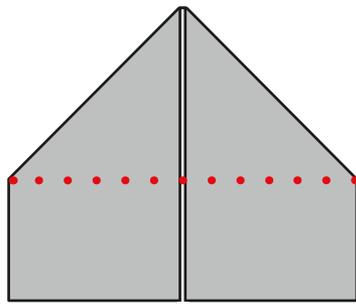
Fold-out corners, used at the top of a photograph, provide openings that allow the photograph to be removed from and replaced onto the back mat without changing the attachment technique or replacing the corners. They may be paired with standard corners at the bottom to provide support. They are slightly different from standard top photo corners in that they are positioned with the opening to the front and do not have protruding tabs (compare fig. 6 with fig. 9).

Step 1. Follow Steps 1–4, above, to make standard corners and position the print. In Step 2 (fig. 9), trim the tabs. For fold-out corners with flaps, fold each corner to form a triangular flap (fig. 9c). Notch if desired (fig. 9d).

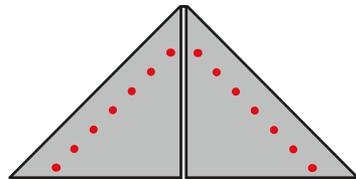
Step 2. Place the fold-out corners with the opening to the front of the photograph (figs. 10 and 11). Carefully slide the pockets of these corners onto the corresponding top corners of the photograph.

Step 3. Secure the top fold-out corners to the back mat using archival tape applied to each side, leaving space to unfold the corner. Position the tape back at least $\frac{1}{8}$ inch

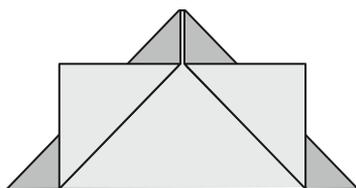
Figure 9. Fold-out corner front.



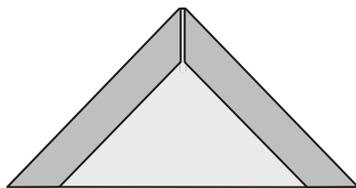
9a. Before trimming the tabs.



9b. After trimming the tabs.



9c. Fold-out corners with flaps.



9d. Notched fold-out corner after trimming the flaps.

from the edge of the corner. Do not let the tape come into contact with the photograph or bridge the opening of the corner (see fig. 11). For fold-out corners with flaps, apply tape to the flap (see fig. 10).

Step 4. Follow Steps 5–6 for standard corners, above, to position and secure standard corners or fold-out corners with flaps on the bottom of the photograph (see figs. 6–8).

Wraparound Corners

Wraparound corners are also used at the top of a photograph, together with standard corners at the bottom, but they are suitable only for mounted photographs. If used with unmounted photographs, manipulation of the corner may damage the print. Wraparound corners are made the same way as standard corners, but the tabs are left in place and the corners are attached in two steps. One tab of each top corner is attached to the back mat; then a free

Figure 10. Fold-out corner with flaps. This method helps to prevent migration of adhesive through the paper corner.

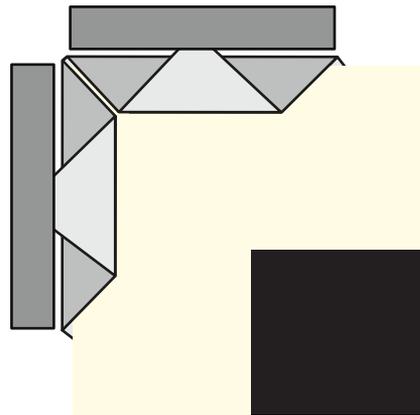
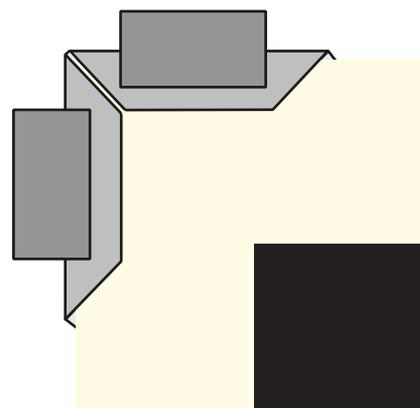


Figure 11. Notched fold-out corner with tape in place.



tab wraps around the top edge of the mount and is tucked behind to hold the corner in place. This method gives the appearance of a standard corner.

Step 1. Follow Steps 1–4, above, to make standard corners and position the mounted print. In Step 2, start with longer strips of archival paper (up to 4× height), and leave the tabs in place. Do not notch these corners.

Step 2. Place the wraparound corners with the opening to the back of the mount. Carefully slide the pockets of these corners onto the corresponding top corners of the mount. Mark the position of the corners on the back mat with a pencil. Do not adhere the top corners yet.

Step 3. Follow steps 5–6 for standard corners, above, to position and secure standard corners on the bottom of the mount (see figs. 6, 7).

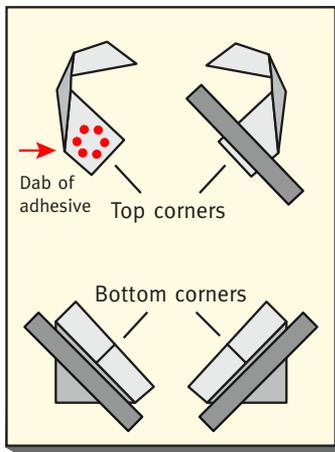


Figure 12. Schematic showing standard corners at bottom and wraparound corners at top, partially folded.

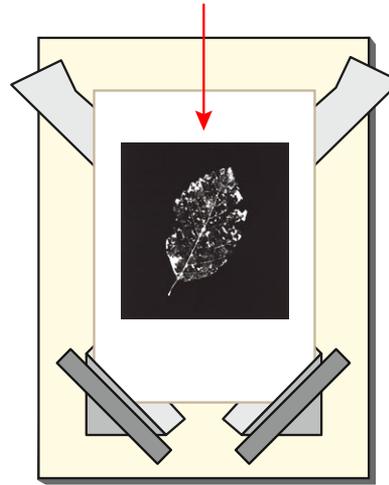


Figure 13. Steps in securing a mounted photograph using wraparound corners.

13a. Insert the mounted photograph into the bottom standard corners.

Step 4. Remove the wraparound corners at the top of the mount, and carefully slide the mounted photograph out of the bottom standard corners. Set the photograph aside. Align the wraparound corners on the back mat according to the pencil markings. Gently unfold the wraparound corners and adhere the lower tab of each corner to the back mat with a dot of archival adhesive or a strip of thin water-activated gummed paper tape, leaving the top tabs “open” (fig. 12). Starch paste or polyvinyl acetate (PVA) offers the greatest support. When using pressure-sensitive tape to secure the top corners, place an interleaving barrier between the tape and the photograph to prevent adhesive from transferring to the print.

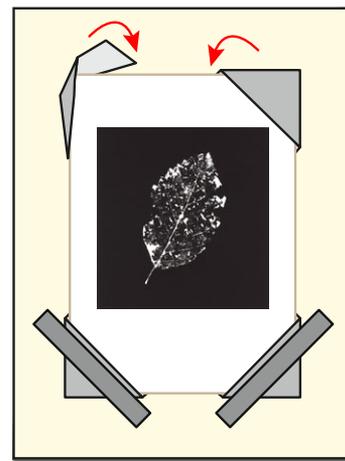
Step 5. Insert the mounted photograph back into the bottom standard corners.

Step 6. Wrap the top corners tabs around and tuck them behind the back of the mount on the upper edge (fig. 13).

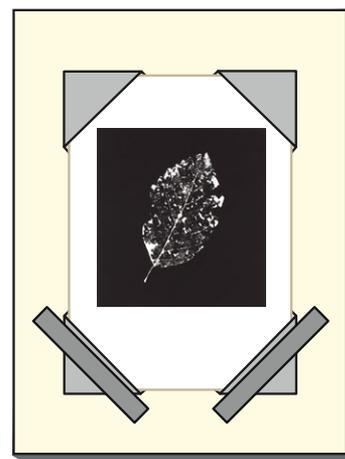
Edge Strips (Sling)

This attachment method uses strips of archival paper that have been folded lengthwise in V or Z folds (fig. 14) and interlaced at the corners to provide support around the entire perimeter of a photograph. The photograph is supported by the inner channel of the folded support strips, which are adhered to the back mat. The V-fold strips are simpler to make and are useful for small, lightweight prints, but the Z fold provides the support necessary for heavier prints (fig. 15).

Each strip should be at least 3 inches longer than each dimension of the photograph. For example, an 8 × 10 inch photograph would need two 11 inch strips for the 8 inch side and two 13 inch strips for the 10 inch side. Larger photographs may need longer strips, but an extra 1½ inches beyond each edge is a good starting point. The width may vary depending on the size of the photograph being mounted, but 2 inches is a good starting point.



13b. Wrap the tabs around the top corners and tuck them behind the back of the mount.



13c. The mounted photograph after tucking.

Step 1. Start with a straight-cut strip of an appropriate paper.

Step 2. Fold strip into a V or Z fold (see fig. 15). Place the paper strip on the work surface; then fold it lengthwise, adjusting the fold to create a channel of appropriate depth. Use a straightedge to create a long, straight fold. For the Z fold, flip the strip over and fold it again lengthwise, about ⅜ inch above the first fold. A wide channel is best for securing prints with margins, but a narrow channel allows for minimal coverage of the image.

Figure 14. Schematic of photograph mounted with edge strips.

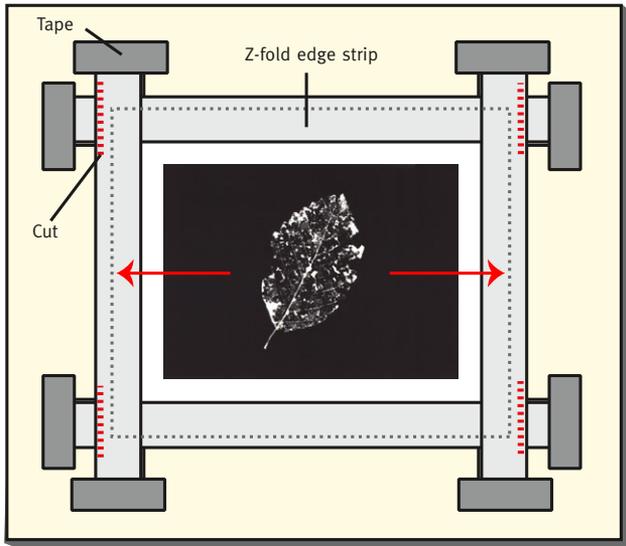


Figure 15. Cross sections of photographs in place with edge strips.

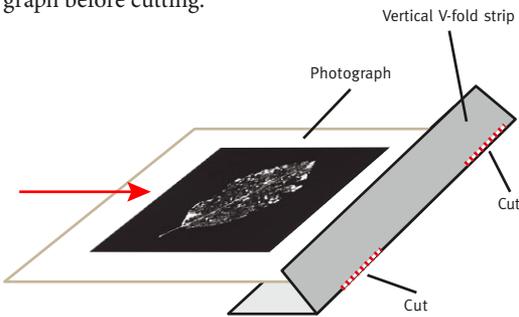


15a. V fold.

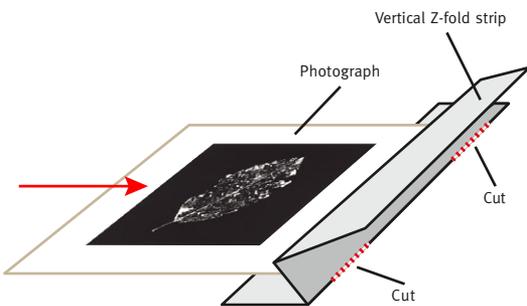


15b. Z fold.

Figure 16. Schematic of photograph with edge strips in place showing areas to cut. Always remove the strips from the photograph before cutting.



16a. V-fold edge strips.



16b. Z-fold edge strips.

Step 3. Position the strips by sliding the photograph into the channel of the vertical strips. Overlap the horizontal strips at the top and bottom edges of the photograph, and mark the overlapping areas on the vertical strips with a pencil. Remove the strips from the photograph, and cut slits in the inner channel at the top and bottom of the vertical strips (fig. 16) to allow the horizontal strips to pass through.

Step 4. Follow Step 4, above, for standard corners, to position the photograph face up on a prepared back mat.

Step 5. Reposition one vertical strip onto the photograph; then temporarily secure the strip with a weight.

Step 6. Slide a horizontal strip through the vertical strip slit created in Step 3, and position the strip around the edge of the photograph. Repeat with the opposite vertical and horizontal strips.

Step 7. Use archival tape to adhere the support strips to the back mat at the ends (see fig. 14), ensuring that the strips are snug and taut around the perimeter of the photograph. Place the tape close enough to the edge of the photograph to prevent the strip from sagging under the weight of the print when placed upright, but do not allow it to come in contact with the photograph.

Notes

1. See also Jennifer Jae Gutierrez, “Caring for Platinum and Palladium Prints: Storage and Display,” in this volume, especially the section on “Individual Enclosures.”
2. ISO 18916:2007, *Imaging Materials—Processed Imaging Materials—Photographic Activity Test for Enclosure Materials*, www.iso.org.
3. ISO 18902:2013, *Imaging Materials—Processed Imaging Materials—Albums, Framing and Storage Materials*; ISO 18920:2011, *Imaging Materials—Reflection Prints—Storage Practices*, www.iso.org.

Further Reading

The following publications offer additional helpful guidance and a variety of mounting methods that are useful for photographic prints.

- Lavédrine, Bertrand. *A Guide to the Preventive Conservation of Photograph Collections*. Los Angeles: Getty Conservation Institute, 2003.
- McGlinchey, Jennifer. “Simple Non-Adhesive Methods for Conservation Mounting of Photographs.” *Art Conservator* 5, no. 2 (Fall 2010): 19–22.
- Munro, Susan Nash. “Making Mounting Corners for Photographs and Paper Objects.” *National Park Service Conserve O Gram*, no. 14/1 (July 1993).
- Phibbs, Hugh. “Edge Strips and Other Hinge Alternatives for Preservation Framing.” Supplement, *Picture Framing Magazine*, April 2001.