

CONSERVATION OF BOOKS & PAPER ARTIFACTS

The following text is adapted from selected leaflet webpages on the Northeast Document Conservation Center website: <http://www.nedcc.org/resources/leaflets.list.php>.

Guidelines for Library Binding

Books differ in value and usage, so it is important to select an appropriate rebinding when they become damaged. Library binding, the most common choice for rebinding, is a good choice where economy and durability are the objectives. It is appropriate for books that are valued for the information they contain, rather than for their artifactual, associational or historical significance.

Goals of library binding: 1) the binding should alter the text block minimally; 2) the binding should be as non-damaging to the text block as possible and should not shorten its useful life; 3) the bound volume should open easily to a 180° position; and 4) the bound volume should stay open when resting face up on a flat surface so the reader has both hands free.

Surface Cleaning of Paper

When to Clean

Although it is unnecessary or always desirable to remove all dirt and discoloration from old papers, surface cleaning may improve an artifact's appearance. Surface cleaning also removes substances that might damage paper or become transferred to other papers during handling.

While manuscripts, maps, book pages, and other documents may benefit from surface cleaning, brittle newspapers, photographs or fine art prints might actually be harmed by surface-cleaning. Some works of art – especially those made with pastel, pencil, or charcoal – might be smeared by cleaning and usually cannot withstand surface cleaning at all.

Closed books on the shelf normally present an effective barrier to the entry of air-borne dirt into the text. If, however, the pages are wrinkled, boards are lost, or a variety of other circumstances exposing the book's interior, dirt may accumulate along the unbound edges of the pages and in the gutter (binding) edge of the pages. Both of these situations may call for surface cleaning.

Sticky tape adhesives damage paper and can create the physical hazard of bonding papers to adjacent papers and enclosures. Some old tapes fall away as they age and leave thick, hardened adhesive residues. These residues are not an immediate hazard, and they can be addressed only by a professional conservator. In fact, tape removal itself is difficult and should be referred to a professional conservator. Sometimes, however, tape adhesive absorbs underlying text or image and the tapes cannot be removed at all. Insect excretions and rust deposits, such as those left by rusted paper clips, are not only disfiguring but also the source of ongoing damage to the paper. It is a good idea to remove these deposits whenever possible.

Moldy materials are obvious candidates for surface cleaning. Mold activity should first be stabilized by leaving the affected materials in an environment of low relative humidity (generally below 50%) so the mold goes dormant. Mold removal is a delicate procedure and requires careful work to avoid spreading contamination as much as possible. Mold can also affect your

health, so protective equipment such as respirators, gloves, and fume hoods should be used when removing it. This work is probably best left to a professional conservator.

Supplies and Equipment

There are several erasing compounds available that come in containers of granules that are sprinkled on soiled drawings, or in cloth bags that leak small amounts of granules as they are rubbed across the surface of the paper. These granules are potentially damaging because they are abrasive, chemically unstable, and leave considerable residue on the paper. Conservators prefer to use granules produced by grinding up vinyl block erasers, available commercially from conservation suppliers. This cleaning agent is less abrasive and breaks down less during use, so it has less of a tendency to leave residues behind.

The erasers used to make these compounds are also sold as blocks, such as the noncolored Eberhard-Faber Magic Rub Eraser and the Staedtler Mars Plastic Eraser. The blocks are sometimes useful for surface cleaning. More commonly used by conservators nowadays, however, are vulcanized rubber dry-cleaning sponges, which were intended originally for soot removal following a fire. They degrade upon exposure to light and with age, so they should be stored in an air-tight container in the dark.

Creped rubber adhesive pickups are useful for lifting residues of pressure-sensitive tape and other sticky deposits. Scalpels with a pointed tip are good for picking off insect specks, rust deposits, and other small surface accretions. For all dry-cleaning procedures a clean, soft brush is needed. Brushes intended for surface cleaning should not be used for wet work, and any brushes used on moldy materials should be labeled and kept separately, to avoid spreading mold to other papers.

How to Clean

Before attempting these procedures it would be wise to practice them on expendable objects to test your confidence and comfort level. If unsure of any of these techniques, do not experiment with them on objects of value.

Work on a large, clean, smooth work surface. Place a large sheet of inexpensive, clean paper that can be changed frequently. Begin cleaning by gently brushing the surface of an object with a soft brush to remove loose dirt and dust. *If this raises dust particles, wear a dust mask! Do not brush over powdery media (such as pastels or charcoal) or flaking paint or ink. Be careful to avoid enlarging tears by brushing in the direction of the tear.* Brush both sides of the sheet. Every few strokes brush across a clean fabric or blotting paper to dislodge dirt from the brush.

Gently rub sticky tape adhesives with numerous extremely short strokes of the creped rubber pickup eraser. This can be time-consuming, but numerous gentle strokes eventually pick up the adhesive without damaging the paper, while fewer, more forceful applications might.

Pick off accretions such as insect specks and rust deposits with a scalpel tip, and keep a brush at hand to remove dislodged materials. *Do not overdo this work; it is better to leave accretions alone than to accidentally make a hole in the paper due to more aggressive efforts.*

Local deposits of grime may be reduced by gentle rubbing with a vinyl block eraser. Rub in short, meandering strokes to avoid setting up a pattern of erasing marks, and check periodically with a close sideways examination across the surface to make sure the paper is not being

abraded. Never rub over media, whether printed or drawn, and do not persist if no improvement is made.

Grated/granulated vinyl erasers are effective for overall cleaning of papers, and can be used on most printed surfaces. Pour a small amount of the granules on a small spot in as obscure an area as possible, and gently roll the granules in a circular motion with the fingertips. If this is effective the granules will rapidly become dirty. Make sure the granules are lifting only dirt, then carefully brush them away.

More thorough cleaning can be achieved with a vulcanized rubber sponge. This tool is gentle but is still not recommended for use on design areas. Sponges can be used on the reverse to reduce dirt that might otherwise be transferred during handling, but take care to avoid removing notations on the reverse that might have historic significance. Again, rub gently and in random directions if there is any sign of setting up a pattern on the surface of the paper. Prolong the usefulness of the sponge by cutting away dirty sponge surfaces to expose clean surfaces, and do not use any moisture with these sponges. Finish by brushing the paper with the soft brush to remove any crumbs from the sponge.

Granules should not be used in books, as they will become trapped in the gutter despite the best efforts to brush them away afterward. The soft brush is the best tool for removing accumulated gutter detritus, and vulcanized rubber sponges serve best for removing grime along the other edges.

Repairing Paper Artifacts

Why Repair Paper Artifacts?

Tears are repaired most often to improve the appearance of a torn paper artifact, to prevent a tear from lengthening, to keep fragments from separating, or to make an artifact safer to handle. The most common method of repairing tears and breaks in paper uses strips of thin acid-free paper adhered with a water-based adhesive that is acid-free, stable, and reversible. The following materials are recommended for the repair of documents, book pages, and other paper objects.

Papers

The preferred repair papers are made in Japan usually from kozo fibers. These papers (erroneously called rice papers) are manufactured in different weights with names such as Sekishu, Tengujo, Kizukishi, and Usumino. Only papers made of 100% kozo, mitsumata, or gampi fibers, or a combination of these, should be used for repairs. These materials do not discolor or become brittle over time, and they have long, strong, flexible fibers that produce a lasting repair. The lighter-weight papers are especially suited to the repair of documents, since they are translucent and unobtrusive, and may not obscure the text of a document. Most conservators use strips of paper with torn rather than cut edges, because a frayed edge makes a less visible repair and is less likely to deform the paper.

Adhesives

Using the proper adhesive is essential. Any adhesive used for mending paper objects must have the following properties: 1) it should have sufficient strength to maintain its adhesion for an indefinite period; 2) it should not yellow, darken, or stain the paper to which it is applied, and 3)

it should be reversible, i.e., it should be possible to remove the repair paper with moderate effort and no damage to the object, even after many years.

Few commercially available adhesives meet these criteria. Commercial library and wallpaper pastes may lose hold as they age, and they often contain harmful additives. Rubber cement and animal glues darken and stain. Several synthetic adhesives, such as “white glue,” are very difficult if not impossible to remove once they have aged. Pressure-sensitive (self-adhering) tapes should generally be avoided. The adhesives on these tapes may cause staining over time and require toxic solvents and technical expertise for removal.

Pressure-sensitive tapes advertised as archival are available from commercial vendors. These are probably more stable than other similar tapes, but because their aging properties are not proven, they should be avoided for objects of value. They do become difficult to remove in time. The adhesives on commercial gummed tapes, which require wetting, are less damaging, but they may stain in time and are usually too strong and tend to deform the paper to which they are adhered. Commercial products in general should be avoided even if they are reputed to be safe, because their composition is subject to alteration without notice by the manufacturer.

Starch-Based Paste

For many years conservators have favored homemade starch-based pastes. These pastes have stood the test of time, as they have been used for centuries by Japanese screen and scroll mounters. They are made most often from either rice starch or wheat starch. They are not made from flour, because flour contains potentially harmful impurities that may become irreversible in time. The starch obtained by refining flour is preferred.

There are numerous recipes for these pastes. One recipe for wheat starch paste follows:

1. Place one part of wheat starch and four parts of deionized or distilled water in a clean saucepan or the top of a clean double boiler.
2. Mix well and let stand at least 20 minutes.
3. If a double boiler is used, fill the bottom part with a small amount of water.
4. Place on medium high heat and cook, stirring constantly with a clean, nonmetallic implement.
5. When the paste begins to thicken, which may happen right away, reduce the heat and continue stirring.
6. Stir for about half an hour until the paste is thick and translucent, then remove from the stove. As it cooks and thickens, it will become more difficult to stir.
7. Continue stirring for the first few minutes of cooling, then transfer the paste to a clean, covered container for storage. Allow the paste to cool to room temperature before diluting for use.

Quick Wheat Starch Paste

The advantage of this recipe is that small quantities of paste can be easily prepared. The paste should be strained before use.

Place one tablespoon of wheat starch in a microwave-safe container, add five tablespoons of distilled or deionized water, and place in a microwave oven. Microwave on a high setting for 20

to 30 seconds. Remove the paste and stir. Place back in the oven and microwave another 20 to 30 seconds. Remove and stir again. Continue this process several times until the paste is stiff and translucent. If larger quantities are made in the microwave oven, increase the cooking time between stirrings. Cool the paste before straining.

Straining, Diluting, and Storing Paste

Starch paste should not be refrigerated; cover and store it in a cool, dry place. It will keep for only a week or less, so make paste in small quantities when needed. If paste discolors, grows mold, discharges water, or develops a sour smell, discard it immediately and wash the container thoroughly in extremely hot water, in the dishwasher if possible, to eliminate residues of mold. Avoid soap, which may contaminate the paste.

Before use, paste should be strained. A Japanese horsehair paste strainer works best for this, but similar, less expensive strainers may be used, so long as they do not have metal components that may rust and contaminate the paste. After straining, the paste should be diluted by brushing it against the bottom of a container while gradually adding small amounts of deionized or distilled water until the desired consistency is achieved. If water is added too rapidly the paste will separate into clumps, and it will be nearly impossible to regain a smooth consistency.

Different consistencies of paste are required for different mending tasks. A consistency similar to heavy cream is appropriate for most mending, although thicker or thinner paste may sometimes be called for, depending on the strength of the mend needed or the amount of liquid that the document can tolerate.

Methyl Cellulose

Starch pastes require time to make, and they can fail if they are not made or stored correctly. A simpler adhesive can be made from methyl cellulose, which comes in powdered form and is sold by viscosity. In general, the higher the viscosity, the more stable the methyl cellulose. Mix one rounded tablespoon of methyl cellulose with one half cup of deionized or distilled water. Let the mixture stand for several hours before use. It will thicken on standing but can be thinned to the appropriate consistency with water. Methyl cellulose may not be as strong as starch paste, but it should hold adequately in most applications. Methyl cellulose keeps well for several weeks and does not require a preservative.

Mending Procedures

Tearing Mending Strips

It is desirable for mends to have a soft, fibrous edge to avoid deforming or even breaking a fragile paper along a sharp edge. To tear mending strips, use a bone folder or similar tool to incise a crease in the mending paper along a metal ruler or other straight edge. Draw a line of water along the crease with a small, soft artist's brush or a ruling pen. Pull the strip away from the sheet while grasping it near the crease. Make strips of different widths to conform to different tears; one fourth inch, one half inch, and three fourths inch are the most useful. If a great deal of mending is planned, tear up a good supply of strips in advance.

Preparing to Mend

Prepare a work surface by covering a sheet of clean blotting paper with a sheet of nonwoven polyester such as Reemay or Hollytex to prevent the documents from sticking to the paper.

Begin by mending the largest tears in a document first. Align the tear with the correct under- and overlaps, as tears typically occur not with the sharp edge that a cut produces, but rather with beveled surfaces that may alternate between the front and the back of a sheet of paper. If any of the overlaps are sizable, they should be pasted, adhered, and dried as described below before applying the mending strip.

Applying the Mending Strip

Using pieces of an absorbent paper such as blotting paper as a substrate for pasting the mending strip, apply starch paste or methyl cellulose to a strip of Japanese paper with a flat brush similar in width to the mending strip. The blotting paper will draw out excess moisture that could wrinkle or stain the document. Then lift the strip with a tool such as tweezers or a needle and place it over the reverse of the tear with the pasted side against the document. If a document has text on both sides, place the mend on either the side where it will not cover text or the secondary side, if text cannot be avoided on both sides. Breaks in papers tend to pull apart when wet with paste. For this reason it is easiest to use strips not more than three or four inches long. For longer tears, several short strips may be applied and dried one at a time, placed end to end. Start with the termination of the tear; this usually means the edge of the sheet is mended last.

It takes practice to manipulate the thin, wet repair strips. Once the mending strip is in place, brush it into contact using a dry flat artist's brush then lay a sheet of nonwoven polyester (Reemay, Hollytex) over the repair.

Drying the Mended Sheet

Weight the repair while it dries. Weighting ensures good adhesion and prevents wrinkling of the paper. Repairs may be weighted as follows. First place small pieces of nonwoven polyester (Reemay, Hollytex) over the area to be dried. Then place a square of blotting paper, followed by a piece of glass or Plexiglas on top of the blotter. Finally, place a weight on top of the glass. Small bags of lead shot, pieces of lead covered with cloth, or any other small, dense object may be used as a weight. One-pound fishing weights from sporting goods stores make excellent weights, provided they have at least one flat side to prevent rolling. The blotting paper square may be changed in a few minutes, but the repair should be weighted for one hour or longer.

A photographer's tacking iron, set at low heat, can be used to speed up the drying process. The tacking iron should never be applied directly to the document; place a piece of nonwoven polyester between the iron and the document. Pay close attention to the tacking iron; these tools can achieve temperatures high enough to melt polyester and scorch paper, and the temperature of one that is failing may spike just before it burns out. Moving the iron with an "ironing" motion does not dry a mend faster. Instead, shift the location of the document from place to place on the blotter substrate every 10–20 seconds to hasten drying. After using the tacking iron, weight the mended area for a few minutes while it cools to lessen cockling.

Hazards

When tears are overly complex or when they cross through image areas in works of art or text areas on documents, it may be wiser to leave this work for professional conservators. Some old tears cannot be restored to their original shape, as over time sheets can change their shape to conform to the altered tensions produced by tears.

Parchment, which is not paper but made of animal skin and should not be confused with "parchment paper," is usually not repaired. It always resists bringing old tears into alignment, as

it is a stronger material that changes its shape due to the way its internal structure responds to environmental conditions, especially fluctuating relative humidity. Heat should never be used on parchment, as this will cause permanent damage.

For archival documents, the need to repair tears can sometimes be eliminated by simply placing the papers in archival-quality Melinex or paper folders.

How to Do Your Own Matting and Hinging

When matting paper artifacts, using the right materials is essential. Paperboards for mounting must be archival-quality, or acid-free, boards sold by conservation suppliers. They are free of lignin and are pH neutral or, more often, slightly alkaline. The methods and materials for attaching the artifact to the mount are also important. The traditional method is to hinge the object with Japanese paper and a starch paste. More recently, corner supports or edge strips have come into favor since these can be used without applying adhesives to the object.

Window Mats

A window mat is the customary mount for a work of art or valuable artifact on paper. A mat is composed of a top sheet with a window and a backboard. The two boards are held together with a strip of cloth tape along one edge, usually the top. The window permits the object to be seen while the mat protects it from handling and isolates it from surrounding materials.

In the past, museum-quality mats for works of art were expected to be made of rag fibers, that is, cotton or linen. Today rag board is still favored by museums, but some lignin-free, wood-derived boards are now accepted by the preservation community. Mat boards of either type are usually buffered with an alkaline material to neutralize any acids they may absorb as they age.

Four-ply board is the thickness most often used for matting. Larger works of art or those with raised elements may require a thicker board for the window portion of the mat. Boards heavier than four-ply are available from conservation suppliers, or they can be made by laminating two or more four-ply boards. Sink mats may also be used. These are constructed by adhering strips of conservation board to the backboard to make a recess, or “sink,” in which the object is mounted. The sink construction is hidden by the window portion of the mat.

Mats can be ordered from any framer, but making them yourself can save money. The tricky part is learning to make a neatly cut window opening, which is usually beveled (cut on a slant). This is best learned by practicing with an experienced technician. With practice, a skilled person can make a beveled window with a simple utility knife, but a mat cutting device greatly simplifies the procedure. There are a number of mat cutters on the market.

Hinging

Hinging is the customary way to mount an object in a window mat. The artwork is hinged to the backboard of the mat, never to the reverse of the window. This keeps an object stationary when a mat is opened and avoids potential damage from encountering an object attached where it is not normally expected to be. Part of the hinge is attached to the object and part to the backboard. Hinges allow the artwork to be removed easily from the board if that becomes necessary.

Papers for Hinging

High-quality Japanese papers, sometimes referred to as mulberry papers, make effective hinges because they are strong without being bulky and do not discolor or weaken with age. They are

available in different weights and under a variety of names. To be safe, use sheets made of 100% kozo fibers and buy them from conservation suppliers, not general art or paper suppliers.

Hinges should have torn edges. Tracing an incised line in the paper with a wet artist's brush allows you to pull the paper apart to create an evenly fibrous edge. A torn edge creates a less obvious hinge attachment, especially on thin or transparent papers.

Placement, Size, and Number of Hinges

Hinges are usually placed at the top edge of the work of art. If the object is small, a hinge at each upper corner provides adequate support. Larger objects or those on heavy paper require additional hinges evenly spaced along the top edge. If the object is to be floated, additional hinges at the bottom corners or along the edges are desirable. Large sheets that tend to curl may require several small hinges on each edge if they are floated.

The number and size of the hinges as well as the weight of the hinge paper depend on the weight and size of the object being mounted. If the mat covers the edges of the object, thereby helping to hold it in place, fewer hinges are needed. Hinges should be small, less than three inches across. The part of the hinge that is adhered to the object should extend less than 1/2 inch into the sheet. Use several small hinges rather than a few large ones. Large hinges or a strip across the top edge may restrict the natural movement of the paper in response to environmental fluctuations and encourage rippling.

Adhesives for Hinging

See adhesive section in *Repairing Paper* for appropriate adhesives for hinging.

The Hinging Procedure

Before hinging, assemble the following:

- The finished window mat
- Hinging paper (Japanese kozo) torn or cut in appropriate sizes
- Starch paste in a small dish, thinned to the consistency of mayonnaise
- A flat artist's brush, ideally 3/8 to 1/2 inch wide
- Pieces of clean, white blotter, about 2 by 3 inches
- A larger blotter to serve as a substrate for pasting
- Small pieces of spun polyester (Hollytex or Reemay), the same size as the blotter pieces. Spun polyester is available from conservation suppliers.
- Several 2 pound weights. Lead weights with a flat surface can be covered with cloth. Fishing weights or bags of lead shot can also be used on top of small pieces of glass or rigid acrylic.
- Archival tape for securing the top of the hinge to the backboard (for example, Lineco framing/hinging gummed paper tape)
- Tweezers or other implement for handling pasted wet hinges

Attaching the Hinges

1. Make the mat first. Attach the window portion of the mat to the backboard with a strip of cloth tape so that the window and backboard are aligned.
2. Place the object to be matted face down on a clean surface.
3. If pendant hinges are used, brush starch paste on one edge of the tab (the part that adheres to the reverse of the object) on a piece of blotting paper to absorb excess moisture. Apply the hinge to the reverse of the object and, once in place, tamp it lightly with blotting paper or other absorbent material to further remove excess moisture. Place a piece of nonwoven polyester (Hollytex or Reemay) to prevent sticking and then a small blotter and weight over the hinge and leave until the hinge is completely dry. Speed up the process by changing the blotter after the first few minutes or microwaving the blotters for a few seconds before using them. This also reduces the risk of cockling or staining the paper because of moisture. Allow at least one hour under weight for hinges to dry completely.
4. Repeat the application of hinges wherever needed, always at the upper corners at least.
5. Place the object face up on the mat backboard and check that it is centered in the window. Weight the object so it does not move. Be sure to protect the face of the object with a piece of blotter under the weight.
6. Open the mat and attach the top of each hinge to the backboard. In the case of folded-under hinges, small pieces of polyester or Melinex should be placed inside the hinge to keep it from adhering to itself during drying. Weight the hinges as before for a good hour until they are completely dry. Remove the inserted polyester or Melinex pieces.

Mounting without Hinges

In recent years some institutions have been reluctant to apply adhesives to artifacts, especially if they are valuable. Mounting without adhesives can be done with corner supports or edge strips.

Small corners of chemically stable plastic (polyester film) or archival paper are commercially available for mounting photographs. Although photo corners work well for many photographs and for small works on paper, they are too small to support larger objects. Larger envelope corners (made from folded paper) or strips across the corners give better support, but they cannot be hidden under the mat unless the object has wide margins.

Removing Fasteners from Historic Documents

Fasteners such as staples, paper clips, string ties, rubber bands, and straight pins frequently damage documents. They may cause physical damage (e.g. puncturing, tearing, or distortion) or chemical damage (e.g. staining). Potentially damaging fasteners should be carefully removed from archival documents before they are put into long-term storage. However, fasteners should always be left in place if removing them will cause damage.

Sealing wax, ribbons, thread ties or stitches, and unusual metal fasteners have value as artifacts and/or enhance the value of historic documents. The decision about the retention or removal of such fasteners is a curatorial one. When in doubt, these should always be left in place.

If records must be kept together by a fastener for convenience, a piece of durable, alkaline paper in a card stock weight be folded over the top of the group of documents, with a paper clip slipped over the protective overlay. Potentially damaging original fasteners (including plastic or coated metal clips) are not recommended.

Removing Paper Clips

If the paper clip has not rusted and the paper is sturdy, a paper clip can be removed by gently prying it open. The safest method is to place the fastened papers with the short side of the paper clip facing up and the long side against a flat surface. Holding the long side of the clip down (through the paper) with one finger, carefully pull up on the short side with the thumbnail of the other hand. If your fingernails are not long enough to get under the short side of the clip, use a small, flat tool (such as a microspatula) which is available from sellers of conservation or scientific supplies.

For papers too fragile or rusted by the clip: gently insert a small piece of Mylar between the clip and the paper on both sides; position the papers, and pry open as above. If the paper clip is severely rusted, first loosen it from the paper by scraping through the rust layer very gently with the tip of a microspatula before inserting the Mylar and gently prying the clip open.

Removing Staples

Do not use staple removers. If the staple has not rusted and the paper is sturdy, the staple can be removed by gently prying the prongs open and carefully slipping them through the puncture holes. The safest method is to place the stapled papers on a flat work surface with the prongs of the staple facing up. Insert the tip of a microspatula between the paper and a prong of the staple and gently pry open one prong at a time. Turn the stapled papers over and insert the microspatula between the staple and the paper, and carefully slip the prongs through the puncture holes.

With fragile papers or papers to which the staple has rusted: gently insert a small piece of Mylar between the staple and the paper on both sides; position the papers, and pry open as above. Cut Mylar into strips which are slightly smaller than the width of a staple (or tapered) to make the Mylar easier to insert. If the staple is severely rusted, first loosen it from the paper by scraping through the rust layer very gently with the tip of a microspatula before inserting the Mylar and gently prying prongs open and removing the staple.

Straight Pins

If the straight pin has not rusted and the paper is sturdy, a straight pin can be removed by gently pulling it through the paper. With fragile papers or papers to which the pin has rusted, gently insert a small piece of Mylar between the pin and the paper at all three points of contact and carefully pull the pin through the paper. If the straight pin is severely rusted, loosen it from the paper by scraping through the rust layer very gently with the tip of a microspatula before inserting the Mylar and gently pulling the pin out.

String Ties/Rubber Bands

Cut the tie or band and gently lift it off. *Do not attempt to pull these fasteners over the ends of documents.* If a rubber band has dried and adhered, gently scrape it off with a microspatula, be careful not to abrade or tear the paper. If the rubber band is soft and sticky, do not use solvents. Sticky residue may be gently scraped off with a microspatula. If this residue does not come off easily, interleave the sheets with silicone release paper to keep them from sticking together and consult a conservator.