

## **SURFACE CLEANING OF PAPER**

Surface cleaning is the removal of dirt and other particles from the surface of an item. Besides being unsightly, these particles can cause abrasions that weaken paper fibers. Removing loose dirt prior to storage can help preserve the document and keep clean, good-quality storage materials from getting dirty.



The following techniques are intended for strong, flexible documents and book pages. Do not attempt to clean very brittle, fragile papers. When cleaning a document, start with the gentlest techniques and the least amount of pressure. If those do not give the desired results, and the document is strong enough to handle it, work up to the more effective (and more abrasive) methods.

### **Before surface cleaning**

- Examine the document to see what types of media (inks, pencil, watercolor, etc.) it has. These will help determine which method of cleaning is most appropriate for the item.
  - ⇒ Do not attempt to clean items with loose or flaking media, such as charcoal or pastels. These cannot be cleaned, even with a brush, without significant risk.
  - ⇒ Before cleaning, always test each medium on the document to be sure it will not smudge or be removed by the cleaning process. Choose an inconspicuous place, then test the chosen technique over a small area (such as a punctuation mark or the trailing end of a “y”). Look for changes in the color, shade and/or sharpness of the media.
  - ⇒ Pencil writing can be permanently removed by some methods of surface-cleaning.

*Make sure to test each different medium!*



- ⇒ Some manuscript and printed inks may also lighten or smear. Be especially careful with colored media.
- Prepare a clean, flat work surface.
  - ⇒ Place a piece of light-colored paper under the item being cleaned.
  - ⇒ Replace the paper when it becomes soiled, and start with a fresh sheet when you turn the document over to clean the other side. This will help avoid grinding the dirt back into the document.
- Start with the front or, if two-sided, the most important side of the document.
- Use one hand to hold down the paper surrounding the area being cleaned, to help prevent the paper from moving, crumpling, or tearing during the process.
- Wash hands frequently, to avoid leaving oils and fingerprints. Avoid the use of lotions, which can damage documents.

## Some methods of surface cleaning

### Brush

- A clean, soft brush will remove loose dirt and debris from documents. Brushing is the gentlest but often least effective way to clean. It is often a good idea to use a brush to remove loose dirt before proceeding to one of the other cleaning methods below. It is also necessary to use a brush *after* performing one of these cleaning methods, to remove bits of sponge or eraser.
  - Conservation suppliers offer suitable brushes, but other types – such as cosmetic brushes and artists’ brushes – may be found locally. A brush that is one to three inches wide with bristles at least one inch long is most useful. Choose a light-colored brush, so you can tell when it gets dirty.
  - Brushes can get dirty very quickly when working on heavily soiled or multiple documents. For this reason, it is helpful to have several brushes available for cleaning.
  - Watch out for loose document fragments!



### The procedure:

- 1) Using very light pressure, sweep the brush slowly and gently over surfaces to remove loose dirt and debris.
- 2) Start in the middle of the document and brush toward the edges, brushing in one direction and in a straight line.
- 3) Sometimes the document may not appear to the naked eye to be benefitting from brushing, but the brush may show the dirt that has been removed.
- 4) Wash dirty brushes with a bar of Ivory soap, rinse thoroughly with water, and dry completely before re-use.



### Rubber sponge

- Vulcanized natural rubber sponges can be very effective when cleaning paper. Sponges are more effective than brushes, but also have greater potential for damage. They are not as effective or abrasive as plastic erasers.

- Suitable sponges are available from several archival supply companies. Sponges found commercially may also be acceptable if they are made of pure expanded rubber, and have not been dyed. The natural color of these sponges is generally a shade of beige.



- Cut the sponge into smaller, more manageable pieces with sharp scissors, a serrated knife, or an electric knife, if desired.
- Sponges will smear or remove some pencil writing, so test before using.
- Sponges will work well over most stable inks.
- Sponges offer a good mid-level cleaning option for most items.



### The procedure:

- 1) Using short strokes, rub the sponge gently over surfaces to remove dirt.
- 2) Use one hand to hold the document around the area being cleaned, to prevent crumpling.
- 3) Start in the middle of the document and work toward the edges, moving in one direction and in a straight line.
- 4) Use a brush to remove loose dirt and bits of sponge as cleaning progresses.
- 5) When the outer areas of the sponge get dirty, trim them off to reveal a clean surface. Otherwise, dirt can be re-deposited on the document.



### Plastic erasers

- Plastic erasers are available in blocks and refillable “pencils.” Only use erasers that are recognized as being appropriate for cleaning paper artifacts.

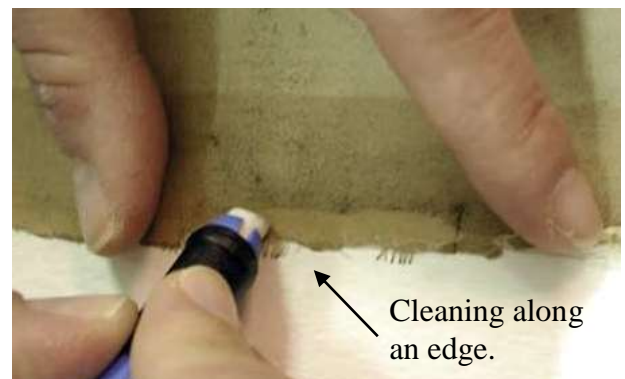


These do not contain additives such as dyes, abrasives or harmful plasticizers that could damage the document. Two types often used in conservation are the Mars Staedtler Plastic Eraser and the Eberhard-Faber Magic Rub Eraser.

- Suitable erasers are available from several archival supply companies.
- Plastic erasers are the harshest and most abrasive of the cleaning tools mentioned, but they are also the most effective at removing dirt.
- Use erasers only on areas that are very strong and durable.
- Erasers will permanently remove pencil, colored pencil and some other media, so test in an inconspicuous place before using. Watch for smearing, fading, or loss of surface sheen.

### The procedure:

- 1) Generally, it is best to rub the eraser in a small, circular motion.
- 2) Use one hand to hold the document around the area being cleaned, to prevent crumpling and tearing.
- 3) To clean along document edges, carefully rub the eraser parallel to the edge.



- 4) To clean around tears, insert a slip of paper between the edges of the tear. Clean parallel to the tear on one side, then switch the slip of paper and clean the other side.
- 5) **Go slowly! It is very easy to make a tear worse as you are cleaning, especially if the paper is brittle.**
- 6) **Use a brush to keep the work area free of eraser crumbs. Crumbs under a document that is being cleaned can create holes or impressions.**



### **More cautions**

It is possible to over-clean a document! One of the most important things to remember when surface cleaning is that not all of the dirt has to be removed. It is very tempting to get documents “perfectly” clean, but much damage can be caused by using harsh methods on a brittle, fragile document or one with unstable media. It may be better to leave the document dirty than to risk damage.

Surface cleaning can be risky, and for very fragile or valuable objects, you may want to call a professional conservator. For help finding and selecting a conservator in your area, you can contact the American Institute for Conservation at (202) 452-9545 or visit their website at <http://www.conservation-us.org/>. More information on selecting a conservator can be found in Jan Paris’ *Choosing and Working With a Conservator* at <https://www.nedcc.org/free-resources/preservation-leaflets/7.-conservation-procedures/7.7-choosing-and-working-with-a-conservator>.

### **For further information**

The conservation staff of the Local Records Preservation Program is available to provide additional guidance and support. Contact them at: P.O Box 1747, Jefferson City, MO 65102, (573) 751-9047, or [local.records@sos.mo.gov](mailto:local.records@sos.mo.gov).

The Local Records staff has compiled a list of preservation-related vendors, particularly those that provide supplies and services to Missouri citizens and government officials. It is available from the Local Records office or at [http://www.sos.mo.gov/CMSImages/LocalRecords/Vendors\\_Information.pdf](http://www.sos.mo.gov/CMSImages/LocalRecords/Vendors_Information.pdf).

***Published by the Local Records Preservation Program, Missouri State Archives, Office of the Secretary of State. The full set of Conservation Notes on this and other topics is available at <https://www.sos.mo.gov/archives/localrecls/conservation>.***

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