

NO BOUNDARIES IN PRESERVATION

SMALL ACTIONS, BIG RESULTS: Basic Conservation Practices in Brittle Paper Repair



THE UNIVERSITY of NORTH CAROLINA
GREENSBORO
University Libraries

INTRODUCTION

Today libraries and archives are the repository of a vast multitude of objects in their collections, yet they are still the main holders of books and manuscripts on paper than any other type of institution.

Preserving and stabilizing materials is part of the everyday maintenance of collections in libraries or archives, any attempt to apply conservation techniques involves evaluation of the collection in an array of different levels.

It is advisable to identify items that are part of the permanent collections from those of the non-permanent collections and define what is valuable and what valuable means for your institution.

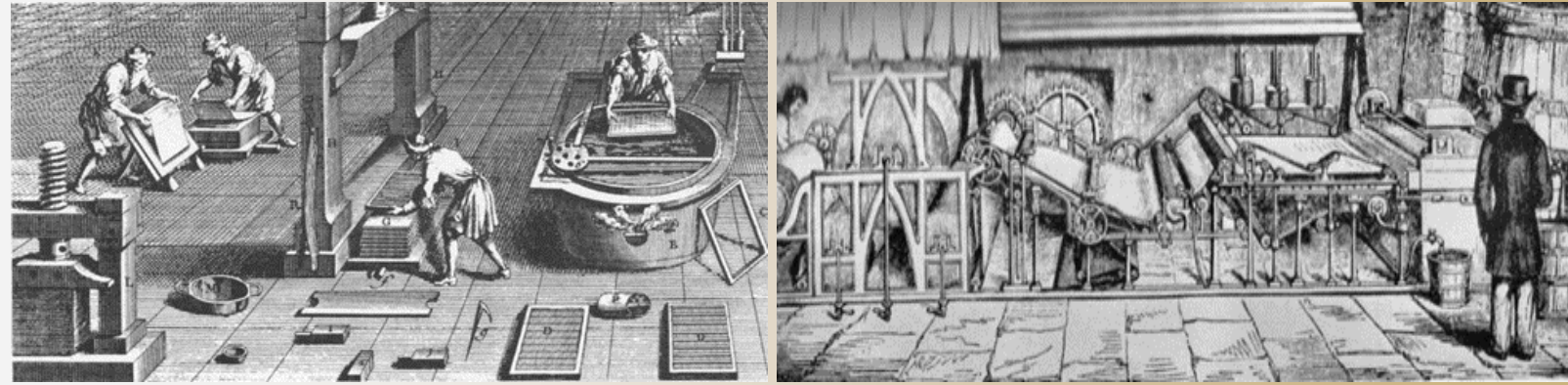
With this basic information you will be able to:

Prioritize items in need of treatment according to the number of staff and their expertise, complexity of conservation treatment, laboratory equipment and available archival materials.



*You should always first assess the physical condition of your collections.
In many instances repairing is not recommended.*

PAPER QUALITY THROUGH TIME



Books older than 200 years are made of linen and cotton rags.

The paper characteristics are:

- Strong
- Long fibers
- Flexible
- Durable

Example:

Paper over 200 years old.

Paper from the last 200 years are made with cellulose.

The paper characteristics are:

- Short fibers
- Fragile
- Contain Lignin
- Very Acidic

Example:

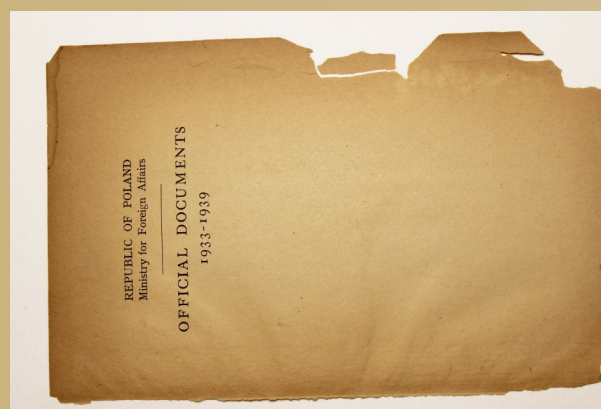
XIX century manufactured newspapers.

★ BRITTLE AND FRAGILE PAPER REPAIR ★

MENDING TEARS



1 - Note on this example that a few small pieces of paper are loose and broken due to acidity of the paper. You will need to re-attach them before proceeding to work with the larger areas.



2 - Tear thin strips of heat-set tissue with your fingers, this will provide uneven edges, which is desirable for the mending final appearance.



3 - Place the page to be mended on the top of release paper and blotter. Use a small weight, so the paper won't move, and place the piece of heat-set tissue on top of tear. Do not forget to place the shiny side of heat-set tissue in contact with the broken paper, which is where the adhesive side is. Cover with release paper and use the small iron to apply heat, warm enough to activate the glue.



4 - You will need to test your iron to set the temperature to a desirable level. Protect any printed part of the paper as the ink may be unstable and will bleed with heat. There are several ways to cut the heat set tissue to infill the losses.

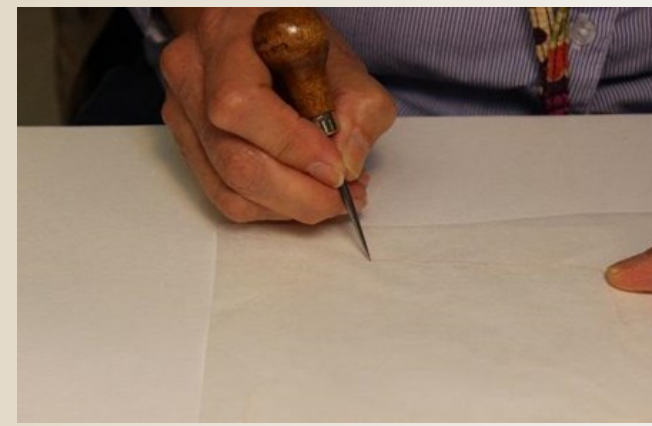
INFILLING LOSSES



1 - Using a piece of polyester film and a permanent marker to trace the area to be infilled. Place the polyester film on top of the page and, with a thin point permanent pen, trace the edges of missing areas.



2 - The pen line will serve as a guide when cutting the heat-set tissue to fit the size insert. As you can see on this photo, the guidelines are matching the losses.



3 - Remove the brittle page from under the polyester film and place it on top of a larger piece of heat-set tissue, bigger than the area you are mending. With the help of an awl, trace the guidelines of the missing area on the top of the heat-set tissue.



4 - Tear the heat-set tissue you just traced and place on the areas to infill. Use silicone release paper under and on top of the page. Apply heat and proceed to the other side repeating the same process.

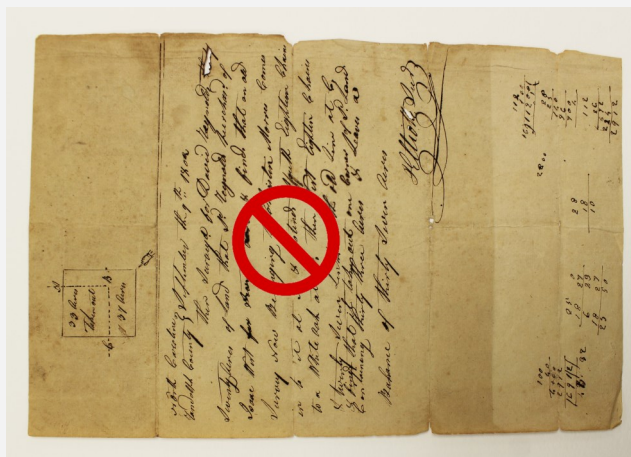
Note: check our video for more details on this procedure and other ways of infilling losses:
<http://library.uncg.edu/preserve>

FINAL WORK

After finishing all the mending, reattach the page and trim the excess of heat-set tissue to the size of the book.

The final result shows heat-set tissue inserts on three edges of the page: at the bottom and on the two lateral sides, giving enough support for the paper to be handle.

If mending is not possible, protect the material with an enclosure, like a four-flap folding, or place the document in archival paper folders. This will always add a new layer of protection to your book or document. The physical integrity of historical books or documents is always a priority.



The procedures shown on this poster **ARE NOT** intended for **historic collections and manuscripts!**

Although heat set tissue is reversible with isopropyl alcohol, these collections are subject to challenging work with complex procedures that only a trained conservator should perform.

Last but not least, any type of commercial tapes should be avoided in all historic documents and books. The harm they cause is bigger than the artifact damage itself.

REFERENCES

- Balloffet, Nelly and Hille, Jenny. *Preservation and Conservation for Libraries and Archives*. Chicago, IL: American Library Association, 2005.

- Ritzenhaller, Mary Lynn. *Preserving Archives and Manuscripts*. The Society of American Archivists. Chicago, 1993.

Paper Through Time
<http://paper.lib.uiowa.edu/european.php>
Iron Ink Gall
<http://irongallink.org/>
Library of Congress
<http://loc.gov/preservation/>
and
<http://loc.gov/preservation/care/deterioratebrochure.html>
Neschen Filmoplast R Information
<http://www.neschenbrands.com/websites/sealbrands/neschen.nsf/htmlalias/library>

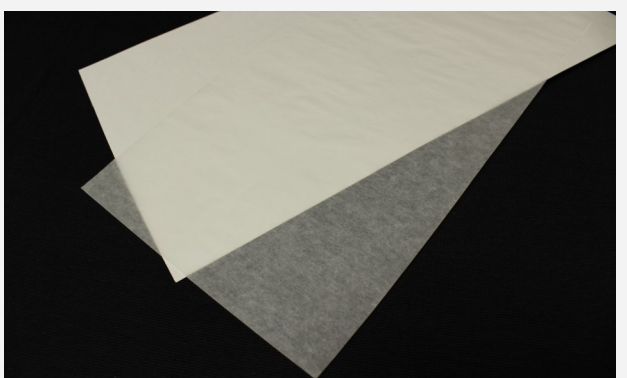
The procedures presented here have been used by trained staff and conservators. If you can not receive specific training, work with basic techniques.

Basic Conservation Practices Brittle Paper Repair

HEAT-SET TISSUE NESCHEN Filmoplast R



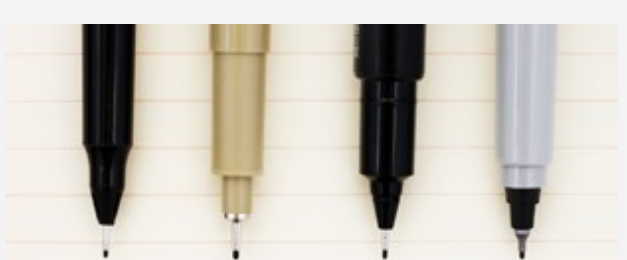
BLOTTER PAPER and SILICONE PAPER



SMALL IRON and PAPERWEIGHT



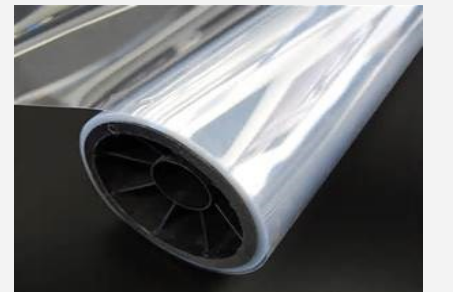
PERMANENT INK PEN



SCISSORS



POLYESTER FILM



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