How to Humidify and Flatten Folded Documents
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Local history organizations often face the challenge of storing and preserving documents that are curled, folded, or rolled. For documents that are in good condition, flattening will allow the documents to be used for research and access without the extra handling required to unroll or unfold each document. If the documents are brittle and crumbling, make sure to consult a professional paper conservator before going forward with a humidification and flattening project. Do not attempt to humidify vellum, parchment or paper with watercolors, chalk, charcoal or pastels – remember, when in doubt, contact a conservator.

The Marshall County Historical Society designed their humidification and flattening project as a way to process a large collection of folded and rolled documents with limited staff and time. As the news of their project spread locally, the Marshall County clerk’s office approached the historical society and asked them to humidify and flatten a large collection of historic county records. By providing this service to their county government, the Marshall County Historical Society offers an excellent example of how a local history organization can serve its community in a variety of creative ways.

After several years of practice, the staff and volunteers of the Marshall County Historical Society developed the following steps when humidifying, flattening and rehousing the rolled or folded documents in their collection:

- Remove unwanted fasteners. Carefully remove old rubber bands as they tend to adhere to the paper. Leave the documents folded. (Image 1)
- Use a lidded plastic bin along with a plastic-coated rack that will fit inside (the rack will elevate the
documents above the water in the bottom of the bin). Put about one-half cup of water in the bottom of the bin and then spread a layer of four or five paper towels evenly in the water. Insert the rack. Evenly distribute one layer of papers to be hydrated (leaving them folded with no overlaps) on the rack. Do not let the documents fall into or touch the water. Keep the lid secured for four to six hours. This allows the moisture to absorb gently into the paper. (Image 2)

- Prepare a totally flat surface with a large sheet of acid-free tissue paper. Carefully remove and unfold the dampened documents, laying each one out separately on the prepared tissue and being careful to not to overlap the documents. Most inks will not run with the introduction of water vapor, but some blue, purple and red stamped inks, and even some blue and iron gall inks can transfer if pressed against an overlapped sheet. (Image 3)

- Cover the documents with a sheet or two of acid-free tissue paper. Place a piece of archival mat board over the tissue layer. Repeat in layers to keep batches of documents separated, if necessary. The tissue paper helps to draw some of the moisture out of the paper. Weight the final layer with heavy flat objects. Flatten for 24 hours or longer. (Image 4)

- Remove the weights, boards and tissue sheets, one layer at a time. Carefully pick up the documents and transfer them to archival quality sleeves or enclosures. Make sure to allow for extra drying in the press if the documents are going directly into the enclosures. (Image 5)

- Clean the bin and rack as necessary between humidification projects with a mild bleach solution to deter mold growth in the bin.

**Resources**

- National Park Service Conserv-O-Gram Number 13/2
- Conservation OnLine (CoOL)
- Indiana Historical Society Conservation Department

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