**Title**
Map of the business portion of Cincinnati

**Author**
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**DESCRIPTION:**

**General Remarks**
This is a flat paper object. It is an oversized map showing the location of business enterprises in an area bound by the Ohio River, Broadway, Race and Sixth streets. It is the only copy at the Public Library of Cincinnati. The University of Cincinnati owns a similar copy that is hung in a classroom in the Archives and Rare Books Department. This Public Library map is receiving a conservation treatment in order to be digitized by Digital Services.

**Binding**
N/A

**Textblock**
N/A

**Primary Support**
The map is made of a light beige wove paper backed with a thick white cloth lining.

**Medium**
It is not possible to determine with certainty the printing process of this map. When looking under magnification the paper fibers are visible and the ink lies on the surface of the paper. There is no obvious impression mark. These characteristics indicate the media was printed with a planographic process. However, the text shows characteristics of letterpress printed type. Also, the flats of blue highlighted areas overlap the black text and borders and may have the texture of having been printed with wood blocks. It is possible that this map may be a letterpress printed map, or a transfer lithograph of a letterpress printed map.

**Attachments | Inserts**
There are two library labels, a department label and a call number label adhered to the front of the map located on the bottom left hand corner with a pressure sensitive adhesive. There is an embossed seal for the Public Library on the top right corner of the map.

**Housing**
N/A

**CONDITION:**

**Summary**
Overall, the map is in poor condition. The map is discolored along columns and rows where it appears to have been previously folded. It has several tears and losses along the folds, and a few losses on the corners. There are several areas that overlap each other. These areas were not properly aligned when the map was backed with the cloth.

**Binding**
N/A

**Textblock**
N/A

**Primary Support**
The wove paper seems strong and still has a good drape. It has a superficial layer of loose dirt.

**Medium**
All the media is stable.

**Housing**

**Housing Narrative**
N/A

**Attachments| Inserts**
The pressure sensitive labels to not appear to have caused any permanent damage to the map.

**Previous Treatment**
The map was previously backed with a thich white cloth lining. There is no available documentation regarding previous treatment, therefore the adhesive used for lining is unknown.

**Materials Analysis**
With a brush and filtered water, all the media was tested for water solubility. It was concluded that none of the media is soluble in polar solvents. The lining adhesive swells with water, but is not fully soluble.

**TREATMENT:**

**Proposal**
1. Surface clean to remove any loose dirt and prevent any loose dirt from becoming ingrained into the paper.
2. Humidify the object in order to remove the cloth lining. A more interventive approach might be needed, such as washing, if it is not possible to remove the lining with humidification. Once the lining is removed, reduce the lining adhesive and flatten the object under felts.
3. Repair paper tears and realign overlapping areas.
4. Fill paper losses to reinforce the structural stability of the object.
5. Re-line the object to provid overall structural support during handling.
6. Encapsulate and house in a folder.

**Housing Need**
Polyester L sleeve

**Factors Influencing Treatment**
This map is being treated in preparation for digitization by the Digital Services. Several printed areas are overlapping each other, reducing the legibility of the map. Illegibility was caused by the poor alignment of printed text when the map was previously lined to a cloth backing. Once the cloth lining is removed, the torn and overlapping areas will be aligned properly, improving readability of the map.
Performed Treatment

1. Overall, the map was dry surface cleaned with an Absorbene smoke sponge. The edges of the map were more extensively surface cleaned with vinyl eraser crumbs in areas that contained a heavier superficial layer of dirt and grime. During dry surface cleaning tests, the blue printed ink lifted when dry cleaned with vinyl eraser crumbs, therefore, the map was locally surface cleaned only along areas without blue ink [CF, 0.35 hrs].

2. The carriers of the pressure sensitive library stickers on the bottom left corner were removed with acetone and a cotton swab. The adhesive residue from the stickers was mechanically removed using a vinyl eraser block [AS, 0.75 hrs; CF, 0.5 hrs].

3. To remove the cloth lining, the map was fully humidified on the suction table via an ultrasonic humidification. Once it was fully humidified, the cloth lining was mechanically removed with Caselli spatulas [AS, 1.75 hrs; CF, 1.75 hrs].

4. The map washed and fully submerged in filtered water and the lining adhesive was mechanically removed from the back of the map with Caselli spatulas. Previous repairs to the map were reversed; overlapping fragments of the map were separated into 9 parts and dried under felts [AS, 7.25 hrs; CF, 7 hrs]. After the map was separated into smaller parts, the previous lining adhesive was further reduced with brushes and a Caselli spatula. To better align tears and fragments, creasing and distortions caused by the previous lining were reduced by stretch drying the fragments on the suction table. Some parts of the map did not need to be realigned and were dried under felts [AS, 3.5 hrs; CF, 3.5 hrs]. Lastly, all the map’s pieces were washed in a buffered bath with filtered water adjusted to pH 8 with calcium hydroxide [AS, 2.6 hrs; CF, 2.95 hrs].

5. In preparation for lining with a Japanese Kozo tissue, large tears on the map were stabilized with an untoned Tengujo tissue and Zen Shofu wheat starch paste. The sprung tears and fragments were also better aligned [AS, 1.7 hrs; CF, 2.70 hrs].

6. The map was then lined with two sheets of butt-joined Sekishu tissue and a 1:1 mixture of wheat starch paste and 3% methyl cellulose. Small fragments were inserted into place and the lined map was dried under felts [AS, 2.9 hrs; CF, 2.9 hrs].

7. To fill several paper losses throughout the map, paper pulp was prepared with 3:1 combination of Canson Mi-tientes #110 Lilly and a darker laid handmade beige colored paper [AS, 1.6 hrs].

8. The map’s losses were filled with the previously created pulp and a 3% methyl cellulose size. [AS, 1.75 hrs; CF, 4 hrs].

9. The pulp fills were inpainted with Schmincke watercolors to improve the legibility of the map [AS, 2 hrs; CF, 2.25 hrs].

10. The edges of the lining kozo tissue were trimmed [AS, 0.15 hrs].

Housing Provided

Polyester L sleeve

Housing Narrative

Map housed in a custom, ultrasonic welded polyester L-sleeve with a sheet of buffered Dove Gray tissue. Encapsulated map was placed in a 20 pt. library board folder [CF, 1 hrs].

Storage Recommendations and Handling notes

The map is safe for handling and temporary display. The map should be stored flat in a map case within the L-sleeve encapsulation and provided folder. The legibility of the map has improved significantly and is ready for digitization by Digital Services.

TOTAL Treatment Time

AS: 23.5 hrs; CF: 26.25 hrs.
The Preservation Lab Treatment Report Cont'd

i17116302_1016_B01N, Removed from lining, During Treatment

i17116302_1016_B02T, During Treatment, map is lined, Transmitted Illumination shows losses in map

i17116302_1016_C02T, During Treatment, Transmitted illumination shows losses are filled

i17116302_1016_C02N, During Treatment, Normal Illumination, Before in-paining fills

Photography By: Jessica Ebert & Ashleigh Schieszer
During Treatment, Transmitted illumination shows losses in the paper

After filling losses and inpainting with watercolors
Before Treatment

Transmitted illumination shows paper losses.

During Treatment

Transmitted illumination after losses are filled with paper pulp, before inpainting.

After Treatment

Detail, During Treatment

Transmitted illumination after losses are filled with paper pulp, before inpainting.

Photography By: Jessica Ebert & Ashleigh Schieszer
The Preservation Lab

Treatment Report Cont'd

i17116302_1016_A01N_det, Before Treatment

i17116302_1016_D01N_det, After Treatment

i17116302_1016_B02T_det7, Transmitted illumination, During Treatment

i17116302_1016_C02N_det7, Normal illumination, During Treatment, Before in-painting fills

photographyby: Jessica Ebert & Ashleigh Schieszer