



**Winterthur/University of Delaware
Program in Art Conservation**

Conservation Report

Accession #: 2001.0017.0024

Object: [Portrait of an Unidentified Woman with Cut Bangs Curled About the Forehead]

Object Date: 1869-1899

Artist/Creator: William Keyes Bachrach, Baltimore Photographic Company, 588 North Gay Street, Baltimore, MD)



Materials: Albumen photographic print

Owner: University of Delaware Museums: "The Baltimore Collection"

Permanent Location: UD Museums Collections

Reason for Treatment or Examination: Examined as part of the photo block documentation project with aims to add to the curatorial and conservation body of knowledge

Size:

Image: 13.9 x 9.8 cm (5.5 x 3.87 in)

Mount: 16.4 x 10.7 cm (6.5 x 4.18 in)

Jacket: 20.8 x 13 cm (8.1 x 5.2 in)

Distinguishing Marks: Mount has 'Balto. Photo Co. 588 N. Gay St. Baltimore, MD.' impressed into the bottom margin.

Examined by: Tracy Liu, WUDPAC 2020

Consulted:

Debra Hess Norris, Chair and Professor of Photograph Conservation, Winterthur/University Delaware Program in Art Conservation

Dr. Julie McGee, Associate Professor of Africana Studies and Art History, University of Delaware

Report Date: 17 January 2018

DESCRIPTION

Historical Background:

This photograph is one of 53 in a collection known as the 'Baltimore Collection', named for the fact that many of the photographs within were made in Baltimore, MD. Despite its name, the collection actually consists of photographs produced throughout the mid-Atlantic region of the United States during the late nineteenth- and early twentieth-centuries.

Donated to the University of Delaware by Neil, Reba, and Jessica Porter in 2001, this collection comprises a diverse array of photographic processes including tintypes, albumen prints, matte collodion prints, silver gelatin print-out process and developed-out process prints, and one halftone (McGee 2017). With respect to subject matter, the collection focuses on portraiture, with many of the subject appear to be Black or African American. The majority of the sitters remain unidentified.

Lead by University of Delaware Associate Professor of Africana Studies and Art History, Dr. Julie McGee, a collaborative project titled *Curating Hidden Collections & the Black Archive* delved deeper into foundational research behind this collection (McGee 2017). Beginning with a class of graduate students and a team consisting of librarians, curators, faculty members, and guest scholars in the fall of 2017, a database was created to digitally document and archive each of the 53 photos in this collection, including all basic metadata regarding the photographer/studio (if known), materials, dimensions, etc. Now, in conjunction with conservators and WUDPAC students, all 53 photos in the collection will receive a preliminary condition assessment that will be briefly summarized and added to the existing digital archive along with a color coded diagram marking conservation issues.

This particular photograph is an albumen print, dated from approximately 1869 to 1899 (a date range common for albumen printing), is described as the portrait of an unidentified woman with cut bangs curled about the forehead.

Overall description:

The object is a cabinet card format albumen photographic print (Reilly 1986) that captures the portrait of an unidentified Black or African American woman with hair pulled back, curled bangs, and wide necked, ruffle collared dress. She appears to wear a decorative cross-shaped pin that is affixed to the ruffled collar at the center of her chest.

Photographic Print:

Being an albumen print, this photo has a two-layer stratigraphy consisting of a paper support with an albumen matrix on top. The image, composed of colloidal silver particles typical of print-out processing, is embedded in the albumen matrix, which serves as the binder (Lavédrine 2009). As is typical for photographic prints developed in this style, the paper support is made of thin, high quality rag paper that is adhered to a mount to prevent curling (Reilly 1978).

Mount:

The mount is constructed of multiple layers of smooth, beige-toned decorative facing paper on top and a ribbed paper on bottom that sandwiches four layers of cardstock. The front-facing decorative paper is embellished with a simple border made by impressing two sets of rectangles offset by 2 mm from the photographic print. The mount extends further from the photographic image on the bottom to form a margin with the words 'Balto. Photo Co. 588 N. Gay St. Baltimore, MD.' embossed in decorative script.

Jacket:

The photograph is housed in a simple tri-fold jacket constructed of paper-based materials (Figure 1). The outer flap extends out 12.3 cm from left side while the inner flap (with a curved border) extends out 6 cm from the right side at its widest point. There is nothing present to hold the photographic print in place on the interior (print freely floats once encapsulated, Figure 2).

The jacket exterior is made of a tan, ribbed decorative facing paper with a logo consisting a cameo framed portrait of a woman in three-quarter view with the initials 'WKB' and 'Bachrach' in script printed in the upper left-hand corner of the front cover. Five cities – New York, Philadelphia, Baltimore, Washington, and Boston – are printed in the lower right corner.



Figure 1 – Jacket a) exterior front cover, b) exterior back cover, and c) interior unfolded.



Figure 2 – Jacket interior with freely floating mounted photographic print inside.

CONDITION

Overview:

The photographic print and its jacket are both in fair condition (Figure 3). They are stable to routine handling and transportation, however there is much physical evidence to attest to severe water damage in the past. The surface on both objects has considerable dirt/grime accumulation, which, on the jacket, is more pronounced in areas of water damage (left side on front, and right side on back). The print is also delaminating from its mount on all corners, particularly in the top right corner (Figure 3b); there is an imminent risk that the entire print will detach itself from the mount.



Figure 3 – a) normal and b) raking light photos of the photographic print.

Photographic Print:

Image:

Many scattered spots of discoloration, likely from redox events leading to formation and subsequent migration of silver ions (Hendriks 1991), are present throughout the dark tones (her hair, chin area, and neckline (teal, Figure 4). These spots are all <1 mm in diameter, but are readily noticeable due to their white color, which stands in stark contrast to the dark tones. Microscope evaluation reveals the surface morphology in these areas is consistent with the surrounding dark tones indicating these light spots are not a result of mechanical damage to the image.

Binder:

Evaluation under normal light and raking light shows the binder surface is in excellent condition – it does not appear neither cracked nor crazed, as is common with albumen prints. However, the binder has uniformly yellowed. Moreover, discoloration is made more pronounced by the presence of dirt and grime accumulation throughout to the extent that the surface appears more matte than the typical gloss expected of albumen prints.

Readily visible to the naked eye are three dark lines that appear like scratches with embedded blackened grime. However, microscope analysis shows the albumen surface is not indented, indicating these dark lines are caused simply by grime/dirt.¹ These scratch-like areas are located 5.1 cm from left/1.5 cm from top (1 cm long diagonal slash), 5.5 cm from left/2.3 cm from top (0.7 cm long diagonal slash), and 6.5 cm from left/5.3 cm from top (0.9 cm slash deepest at left end) (dark green, Figure 4).

When viewed under microscope, small flecks that are yellow, orange-hued, and black in color are readily visible. These flecks appear raised from the surface, but are accompanied by yellowed stains that appear embedded in the albumen matrix. This is potentially a result of mold damage with the more acidified paper in the mold infested areas resulting in the concentrated areas of yellowing.²

Raking light shows the binder is dented at 4 cm from left/9.6 cm from top. This is confirmed under microscope examinations, which clearly shows three spherical dents present with black mold/grime in the valley. Viewing under magnification also shows the binder is broken, but paper fibers are not exposed.

Sections of missing binder are present in the top right corner (yellow, Figure 4). Remnants of adhesive residue along highly crisp, linear borders indicates the likely cause of binder loss was application of a tape that was then removed, pulling binder with it. The largest section is located along right-hand border and has mold growth present in the interior. The mold spots are near perfect circular black spots embedded in the paper fibers. Smaller areas of loss include a horizontally oriented thin rectangular section located 8.1 cm from left/1.2 cm from top borders and a smaller circular section located 7.7 cm from left/0.3 cm from top. The exposed paper support for all these sections are considerably darker than its surroundings, presumably due to the acidic nature of adhesives that may have catalyzed yellowing in these areas (Smith 1983). In addition to the top right corner, removal of tape/adhesive appears to have resulted in a section of loss to the right of the sitter's head located 6.5 cm from left/3 cm from top. The exposed paper fibers here are blackened by grime.

Finally, the lower right-hand corner also has multiple concentrated sections of binder loss. These areas all measure ca. 2 mm or less in diameter. The largest section of loss amongst this collection has a dark black circular shaped mold stain embedded in the paper fibers. For all other sections, the exposed paper fibers retain a relatively non-yellowed color and are not plagued by mold damage.

Support:

Notwithstanding areas of exposed paper fiber detailed in the section above, the paper support is in good condition. There are no tears or areas of complete loss/disassociation. The most pressing issue at present is stabilizing the paper support to the mount as it is actively disassociating.

Mount:

The mount is generally discolored and yellowed; the reverse side bears multiple stain marks including one along the left border that has a purple tideline from mold. Unlike the jacket (see section below), these stain markings do not provide evidence of greater water damage on the left side.

All four corners have also begun to delaminate with the layers making up the mount separating from each other. Small sections of the cardstock under layer are exposed along the top border 3.3 cm from left, in top right corner, and lower right corners due to abrasion and fraying of the top-most layer of decorative paper.

¹ Upon cleaning, the dirt lifted readily and left no signs of indentation in the binder under microscope, confirming that they were not scratches.

² Upon cleaning, these raised fleck were easily removed using natural enzymes from saliva and water, however, the yellow stain embedded in the albumen remained.

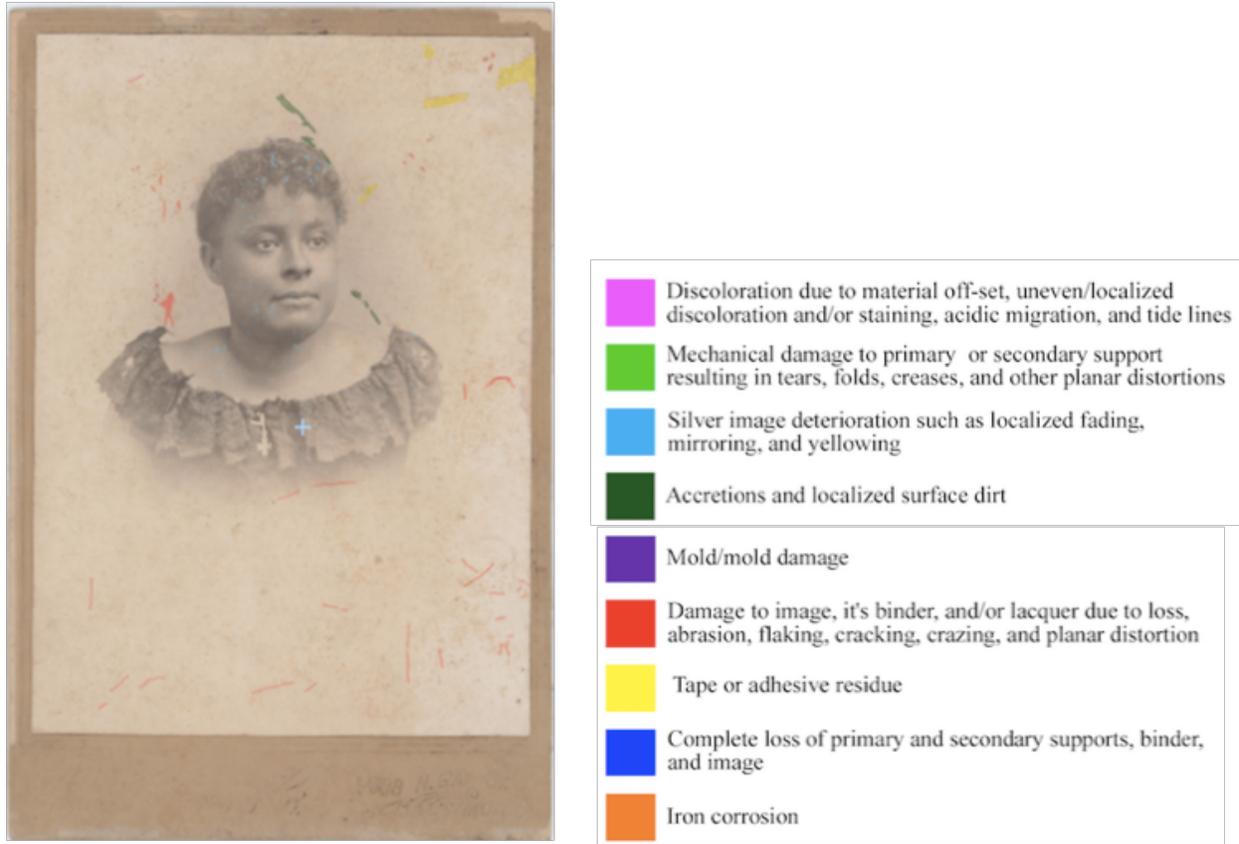


Figure 4 – Color coded condition diagram for 2001.0017.0024.

Jacket:

Evidence points to previous water damage primarily on left side of jacket. Fraying and delamination are present in all corners, and is especially acute in the upper left corner and around the midsection along the left border (when viewing while closed). These locations coincide with areas of heaviest water damage as manifest by greater and darker stain marks. Opening the jacket, one sees traces many purple tide lines, remnants of mold growth on both sides of the left-hand fold. Viewing from reverse (jacket closed) one also sees brown water marks in the upper right corner (left margin when viewing from front).

The conditions around the right-hand fold are considerably better than those around the left – here, fraying due to normal wear and tear is the only observable problem with minimal signs of water damage. Generally, the paper of the jacket on the right side (when viewed from front) is in much better condition compared to that on its left, with minimal to no tide lines from water damage.

Finally, there is a marked dark stain on the front of the jacket located 4.8 cm from left and 12.8 cm from top.

TREATMENT

Purpose:

Attempt to restore the aesthetic quality of the photographic print back to its original state to the best extent possible, while protecting the object from further degradation by removing sources of nourishment for mold and pests.

Testing:

Dry Surface Cleaning:

1. Friability testing with soft 000 brush

Wet Surface Cleaning:

2. Evaluation under microscope and in raking light of effects on albumen surface morphology and finish upon wetting with pure deionized water.
3. Evaluation under microscope and in raking light of effects on albumen surface morphology and finish upon wetting with natural enzymes from saliva.

In-painting:

4. Evaluation under microscope and in raking light of effects on albumen surface morphology and finish upon application of methyl cellulose (barrier coating) prior to in-painting.

Treatment:

Dry Surface Cleaning:

1. Dirt and grime removed using cosmetic sponge (approximately 5 rounds before sponge no longer picked up grime).

Wet Surface Cleaning:

2. Surface grime removed by action of natural enzymes from saliva with gentle rubbing with a cotton swab, avoiding areas of exposed paper fiber in upper and lower right-hand corners.
3. Saliva cleared with deionized water by gentle rubbing with a cotton swab, avoiding areas of exposed paper fiber in upper and lower right-hand corners.

In-painting:

4. Areas of discoloration that required in-painting masked with an aqueous solution of 2% v/v methyl cellulose applied using a 000 brush.
5. Areas of discoloration in the darktones toned with Sennelier watercolor pigments.



Figure 5 – a) Before and b) after treatment photos of 2001.0017.0024.

Preventive Care Recommendations:

Storage:

Ideally store in a dark, stable environment that does not experience frequent changes in temperature or relative humidity. Optimal temperatures and humidity ranges are below 68 °F and between 30–55% relative humidity, respectively (Image Permanence Institute 2015). House photographic print in an acid-free clear sleeve stored in an archival storage container constructed of acid-free materials to minimize risks of oxidative degradation from peroxide and light molecular weight acid off-gassed byproducts (Lavédrine 2003).

Display:

Similar to storage recommendations, display in a controlled environment with minimal fluctuations in temperature and relative humidity (ideally at 68 °F or lower and 30–55% relative humidity). Display in low-light settings (below 50 lux) totaling less than 50,000 lux hours of annual exposure (Wagner *et. al.* 2010). Display behind UV filtered materials (whether on the gallery lights itself or behind a plexi/glass).

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