Duke University Library
Conservation Lab
Perkins Library 031A

TREATMENT PROPOSAL FORM

Call No.: QL715 .A92 1851 4to	**Lab No.:** 2016/17 - 297	
Library/Dept.: Rubenstein	**Author/Artist:** Audubon, John James, 1785-1851	
Librarian: Andy Armacost	**Title:** The quadrupeds of North America	
Date Examined: 5/2/2017	**Pub. Date:** 1851-54	**No. of pages:** ~400 pages each volume
Examined by: Henry Hebert	**Size:** **H** 26.5 cm **W** 19.3 cm **T** 4.5 cm	
Special instructions:		

Description:
Three volume set of half-bound books, with brown calfskin on the spine and corners and marbled paper siding up the boards. Blind tooling with a decorative roll on the faces of the boards where the leather meets the siding up material. False raised bands with blind lines on either side. A central leaf tool in blind. Green and black leather labels, stamped in gold, in the second and fourth panels of the spine. Staining, grain loss in the tail panel of each spine suggests call number labels were removed at one time. Red rolled cloth stuck-on endbands. All edges marbled. Marbled made endsheets with a bookplate tipped to the front pastedown. The textblock is letterpress printed in black ink on cream-colored wove paper. Hand-colored lithographs on thicker wove paper sewn in with interleaving sheets tipped on. A description, printed in black ink on thick grey wove paper is tucked inside the front board of the first volume.

Condition:
Volume 1: Board surfaces, edges and corners are heavily abraded. Marbled paper exhibits scratch and scuff marks. The leather corners are split and the underlying board is visible and delaminating. The leather along the spine is also abraded, with some visible losses to the grain layer. The front joint is split nearly the entire height of the book (originating at the head). Rear joint is split at the head. Major loss to headcap and top panel of spine. Damage and minor loss to tailcap. Both hinges are split; however, all sewing supports remain intact. The heavy paper spine linings and stuck-on endbands have pulled away from the textblock spine. The sewing remains intact, but the spine adhesive of the bookblock has failed, so the sections are quite loose. Interleaving sheets are creased and folded. The textblock remains in good condition.

Volume 2: Board surfaces, edges and corners are heavily abraded. Marbled paper exhibits scratch and scuff marks. The leather corners are split and the underlying board is visible and delaminating. The leather along the spine is also abraded, with some visible losses to the grain layer. Minor damage at the headcap. The rear internal hinge is split, but both boards remain firmly attached. Some interleaving sheets are creased and folded.

Volume 3: Board surfaces, edges and corners are heavily abraded. Marbled paper exhibits scratch and scuff marks. The leather corners are split and the underlying board is visible and delaminating. The leather along the spine is also abraded, with some visible losses to the grain layer. Minor damage to both endcaps, with some losses in the top panel of the spine. Both hinges are split; however, all sewing supports remain intact. The paper spine linings and stuck-on endbands have pulled away from the textblock spine. The sewing remains intact, but the spine adhesive of the bookblock has failed, so the sections are quite loose. Major preferential openings occur, causing strain to the paper and sewing.

Treatment Proposal:
For all three volumes:

- Consolidate leather.
- Consolidate delaminated board corners and cover with toned calfskin.
- Re-adhere any lifting covering material along the board edges.
- Dry clean pages as necessary.
- Humidify and flatten interleaving. Repair as needed with thin Japanese paper and wheat starch paste.
- Mend split internal hinges with Japanese paper and in-paint to match marbled paper.

Volume 1:

- Cut remaining leather along the front joint to separate the spine from the front board and gain access to the textblock

spine.
- Poultice and remove heavy paper lining from textblock and leather spine.
- Consolidate textblock with wheat starch paste, line with layers of heavy handmade paper to produce a desired opening.
- Readhere endbands to textblock spine.
- Reback with calfskin, dyed to match, and re-adhere original leather spine.

Volume 3:
- Cut sewing supports at rear joint to detach binding spine and back board from the textblock to gain access to the textblock spine.
- Poultice and remove heavy paper lining from textblock and leather spine.
- Infill loss at headcap with dyed calfskin.
- Consolidate textblock with wheat starch paste, line with layers of heavy handmade paper to produce a desired opening.
- Readhere endbands to textblock spine.
- Re-create hollow tube and adhere leather spine to it.

Optional: Construct custom clamshell enclosures

Estimated Treatment Time: 25 hours

Proposed by:_____ **(signature)**	**Date:**_____
Approved by:_____ **(signature)**	**Date:**_____

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TREATMENT REPORT FORM

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Librarian: Andy Armacost	**Title:** The quadrupeds of North America
Date Examined: 5/2/2017	**Pub. Date:** 1851-54
Treated by: Henry Hebert	**Size:** **H** 26.5 cm **W** 19.3 cm **T** 4.5 cm
Special instructions:	

Treatment Performed:

All Volumes:

- Pages were dry cleaned as necessary using vulcanized rubber sponges and Staedtler-Mars white vinyl erasers.
- Consolidated leather on spine and corners with 4% Klucel-G in ethanol solution.
- Mechanically lifted leather at board corners. The board corners were consolidated with Aytex-P wheat starch paste (Talas) and clamped between boards. When dry, board corners were covered in vegetable-tanned Archival BV Repair Calf (J. Hewit & Sons), further dyed to match with sellaset leather dye (Leather Conservation Centre). The original leather was re-adhered with wheat starch paste.
- Flattened creased interleaving paper as needed.
- Repaired portions of broken inner hinges with strips of 5gsm untoned Tengujo Japanese paper adhered with wheat starch paste.
- Custom-fit cloth covered clamshell boxes were constructed.

Additional repairs to Vol 1 and Vol 3:

- The remaining leather attaching the front joint of the binding was cut with a scalpel to release the spine leather from the front board and provide access to the textblock spine.
- Paper spine linings and paper tube were mechanically removed from the textblock spine and interior of the leather spine. The stuck-on endbands were also removed at this time.
- Applied a 4% Culminal MC 2000 S Methylcellulose (Talas) in deionized (DI) water poultice to the textblock spine to remove remaining spine linings and reduce proteinaceous adhesive.
- The textblock spine was pasted up again with wheat starch paste and a thick kozo fiber Japanese Paper was applied and pounded in with a brush.
- The original endbands were reattached and an extended aero-cotton lining adhered with wheat starch paste.
- A new 2-on-1-off hollow tube was constructed from Nideggen mould-made paper (Zerkall) and adhered to the textblock spine with Jade 403 PVA.
- Mechanically lifted leather along the spine edge of the boards to receive new material.
- Rebacked the book with dyed calf skin.
- Readhered original leather back down on the boards and over the spine with wheat starch paste.

Total Hours: 33 hours

Treated by:_____ **(signature)**	**Date:**

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