National Park Service

Regional Museum Services Program

Western Archeological and Conservation Center, Conservation Laboratory

255 N. Commerce Park Loop, Tucson AZ 85745

Conservation Examination and Treatment Proposal

Catalog Number: GRTE 1488

IDENTIFICATION:

Catalog Number: GRTE 1488
Object: PANNIER
Material: LEATHER

Examined by Kasey Hamilton
Project Objects Conservator

Date of Report: 2/3/2022

Accession number: GRTE-00100

Center Accession number:

Measurements: 65 H, 60 W, 9.8 D CM

Description:

"ELK HIDE PANNIER WITH WOODEN POLE 57 CM, OVERALL 57-61 CM ACROSS, 48 CM HIGH. WELL WORN, SLUNG BY BLACK STRAPS WITH BUCKLES. ALLEDGED TO HAVE BEEN JOHN CHERRY'S. NEEDS CONSERVATION TREATMENT." as stated in the ICMS record.

GRTE 1488 is a large elk hide pannier bag with vegetable tanned leather straps. The body of the pannier is roughly rectangular in shape. It is constructed from a front and back panel and two side panels, sewn together with thick leather cord. The back panel is roughly twice as large as the front panel, with the excess leather folding over the front to create an envelope-style closure. Two holes are present at the top of the bag, with vegetable tanned leather straps threaded through and attached to a wooden bar (measuring approximately 2 cm in diameters). Two long, thin tanned leather straps are tied to the front panel of the bag. There are a number of splits in the front flap, which the thin straps may have been threaded through to secure the bag closed.

Previous Repairs Noted:

None.

EXAMINATION:

BT Digital Photograph: GRTE_1488_BT01-BT07_2022

Condition:

GRTE 1488 is currently unstable. The leather is severely deformed and stiffened, and the bag is collapsing on itself. The hair side of the elk hide has a dry and desiccated appearance with significant cracking. Patches of fur are preserved throughout the hide and some slippage occurs during handling. Some tears and holes are present in the hide, which may have formed during preparation or the use-life of the object. The flesh-side of the hide (on the interior of the bag) appears dark and discolored.

Large areas of compact white deposits are present on the vegetable tanned leather surfaces. These areas appear both crystalline and fibrous when viewed under magnification, and may be a combination of fatty exudate and inactive mold. A thin layer of additional white material is present within the body of the bag, however this area could not be accessed with a microscope for closer examination.

One large worn area is present on the reverse of the bag, where the hide has discolored to a dark brown color.

Minor dust and loose debris is present on the surface of the hide. "1488" is written in black on a white background on

the back side of the front flap.

GRTE 1488 was kept in freezers at WACC at -30 F until its examination. At some point after mid-December, the freezer's compresser failed. During this time, elevated humidity levels may have occurred within the object's bag and re-activated mold. The object was frozen again for a 24 hour cycle and then examined. At that stage areas of mold still appeared active, as indicated by a somewhat wet and smeary appearance. This event confirmed the suspected presence of bioactivity identified through survey. The object was returned to the freezer for four full days to ensure deactivation of mold. After this four-day freeze the white deposits appeared dry and powdery, indicative of inactive mold.

TREATMENT PROPOSAL:

Proposed Treatment Steps:

1) Reduce mold from the surface of the leather using a soft brush and HEPA filtered vacuum.

2) Reduce exudate from the surface of the leather using a soft brush, wooden skewer, and HEPA filtered vacuum. If needed, lift fatty residues using a cotton swab dampened with mineral spirits.

3) Test discrete locations of vegetable tanned leather and hide for sensitivity to isopropanol. If isopropanol can be applied to these materials without altering the appearance, disinfect areas where mold was present using a cotton swab dampened with isopropanol.

4) Reduce any remaining surface dust or loose debris using a HEPA-filtered vacuum, tweezers, and or brushes.

5) Locally humidify sections of the pannier using a damp pack constructed from Mylar, Gore-Tex/Reemay, and damp cotton blotters. To minimize the risk of reactivating any mold spores, if present, dampen the blotters with 1:1 deionized water:ethanol. Reshape the pannier as possible using internal supports, gentle weights and/or clamps. Spot test humidification in a discrete area first for adverse effects such as darkening.

6) Prepare an internal foam mount lined with Tyvek to better support the pannier in storage and maintain its shape.

7) Reduce old label as possible from the degraded hide. Replace with paper label tied to object. An archival paper label will also be adhered to the wooden pole using a dilute solution of Paraloid B-72 in acetone.

Goals and Risks of Treatment

The goal of treatment is to reduce mold and white deposits from the surface of the object, and to restore integrity to the collapsed structure. Humidification may reactive mold spores, if present. To mitigate this risk, the surface will be thoroughly cleaned and disinfected (if possible) prior to humidification. Using a mixture of ethanol and deionized water during humidification should also minimize the chance of reactivation. The object will be closely monitored for mold growth throughout treatment. If any new mold growth is detected during treatment, the object will return to the freezer for at least four days, and steps 1 & 3 will be repeated.

The use of solvent to lift fatty exudate may cause formation of additional fatty exudate. This risk will be minimized by removing as much exudate as possible using dry methods and only applying solvent in limited quantity if needed. Care will be taken to minimize physical harm from handling and tools.

Treatment Materials to be used:

acetone, cotton blotter, deionized water, Ethafoam, ethanol, Gore-tex, isopropanol, mineral spirits, Paraloid B-72, Permalife archival paper, Reemay, Tyvek,

Conservation Treatment Priority: 1

Estimated Treatment Hours from Survey: 10

Additional Estimated Hours Based on Full Examination: 5

CERTIFICATION: **The above treatment will be executed in accordance with the Code of Ethics and Standards of Practice of the American Institute of Conservation of Historic and Artistic Works.**

Partner/Contractor Conservator signature and date: 2/7/2022

NPS Conservator signature and date: 02/07/2022

Curator signature and date: BRIDGETTE GUILD Digitally signed by BRIDGETTE GUILD Date: 2022.02.08 07:20:42 -07'00'