Art Conservation and stepping out of the box

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Elegant, oval shaped and small enough to slip easily into the pocket of a prosperous, late 18th-century shopkeeper or business owner, the four-inch-long tobacco box closely resembles the more expensive silver and gold boxes carried in the same era by upper-class people. But the box, made of a copper alloy and part of the Winterthur Museum collection, was one of many made in England for the middle-class American market. Indeed, it closely resembles a second tobacco box in the Winterthur collection, differing only in some engravings, indicating that such boxes were personalized for their purchasers.

When WUDPAC Fellow Alyssa Rina, an objects major and preventive minor, began treating the tobacco box, it was in poor condition and too unstable to be handled or exhibited safely. Most significantly, the flat lid was broken along the hinge, while the interior was covered with green corrosion. The surface was also quite tarnished and needed to be cleaned and polished. Alyssa's intent was to stabilize its condition, a goal she was aided in by research done in 2019 by WUDPAC Fellow Yungjin Shin.

Alyssa, who has more experience with organic than inorganic materials and who is deeply interested in indigenous cultural materials, began her treatment of the metal box with trepidation. But she was intrigued by the many inscriptions on its small surface area. A three-masted sailing vessel flying a British flag engraved on the bottom, for example, indicates that it was made prior to the American Revolution, while the name Rowland Harltey, inscribed below the ship, and the initials CB on the lid in the center of an elliptical-shaped piece of silver inlay, were likely requested by the purchaser. The lid is also inscribed with a chased inscription, "May the honest Heart Never know Distress," and a chased feather border.

Alyssa first treated the green corrosion inside the box by carefully removing it with a scalpel and wooden skewer while working under a microscope. She also cleaned and polished the copper exterior with a calcium carbonate slurry. She was unable to remove the thick corrosion from the broken hinge, so instead of permanently reattaching the lid, she created a passive mount to support the lid open in place. To inhibit further corrosion, she coated the interior with benzotriaole (BTA), and the exterior with three coats of a nitrocellulose lacquer.

By the time she completed her treatment, Alyssa felt much more comfortable working with metal. She added that she not only enjoyed the treatment, but she also thought it was fun.







ARTC Spotlight—May 2022

The University of Delaware's Art Conservation Department educates and trains professional conservators who are well versed in the treatment, analysis, documentation, and preventive conservation of individual artifact and archive collections. For more news about our students and other department activities visit our web site at www.artcons.udel.edu.

Top: The tobacco box after treatment. A mount was created to support the broken lid, corrosion was removed from the interior of the box, and the copper exterior was cleaned and polished. Above: WUDPAC Fellow Alyssa Rina polishes the lid of the tobacco box with a calcium carbonate slurry. Left: Alyssa examines the front and back of the box after treatment. (Images: E. Krape and A. Rina.)