



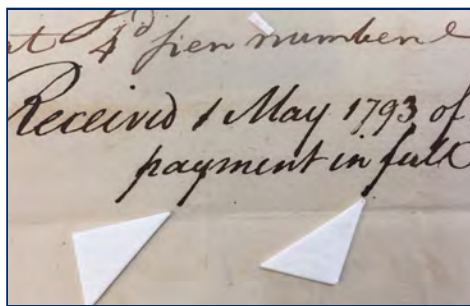
Art Conservation *and historical documents*

The 18th-century church records and 19th-century Nantucket map were created with materials likely chosen to insure permanence. Over time, however, the iron gall ink used to write the documents and the varnish applied to protect the map have both proved to have detrimental effects, situations

best addressed through professional conservation. The conservation treatments were undertaken this summer by Winterthur/University of Delaware Program in Art Conservation (WUDPAC) Fellow Emily Farek,

a paper major with a minor in library and archives, during her five-week internship at the Conservation Center for Art and Historic Artifacts (CCAHA) in Philadelphia. The church minutes, billings, and receipts belong to Philadelphia's historic Christ Church, and the iron gall ink with which they had been written was causing both the ink and supporting paper to deteriorate. Emily's goal was to stop the damage. After first cleaning away areas of grime with natural vulcanized rubber sponges and white vinyl eraser crumbs, she tested the inks for their solubility in water and treated the documents with a calcium-phytate solution that stabilized the iron component in the ink. The treatment required immersing each of the 39 documents three times: first in a calcium bicarbonate solution prewash, then in a calcium-phytate solution, and finally in a calcium bicarbonate solution rinse. Final treatment with gelatin sizing and mulberry paper lining or mends improved the physical and chemical stability. The treated and dampened pages were allowed to dry between pieces of felt, placed under weights to keep them planar.

The 27-inch by 43.5-inch lithographic 1869 Nantucket map, mounted on cloth with wooden rods attached at the top and bottom, belongs to private collectors who display it in their home. The varnish on the surface had darkened and yellowed, and the cloth and rods no longer supported the map safely. Emily began her treatment by detaching the rods and gently brushing loose dirt from the surface. She then bathed the map in an ethanol solution that removed the varnish, followed by calcium-enriched deionized water baths, which allowed her to remove the cloth backing and edge binding fabric and to reduce the adhesive on the verso. After the baths, Emily relined the map with mulberry paper, placing it under restraint to dry. She then filled and toned the most disfiguring cracks and losses. Although Emily's time at CCAHA was short, her experience working on both treatment projects added to the knowledge and expertise she brought to Winterthur this fall as she began her second year as a WUDPAC Fellow.



ARTC Spotlight—October 2017

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 artifacts and entire collections. For more news about our students and other department activities visit our web site at www.artcons.udel.edu.

Top: Once she filled the cracks in the Nantucket map with toasted cellulose powder and methylcellulose, WUDPAC Fellow Emily Farek inpainted the fill with watercolors matching the surrounding paper. Above (L-r): Solubility of the Christ Church documents' ink was tested before treatment, using blotter paper and mixtures of water and ethanol; non-bleeding indicator paper was used to test for the presence of iron (II) ions in the ink. Left: The documents needing extra support were lined with very thin mulberry paper and wheat starch paste. (Photos: Heather Hendry, Emily Farek, Amy Heuer, Brook Prestowitz.)

