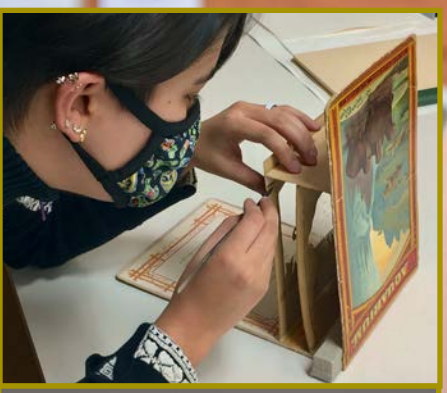
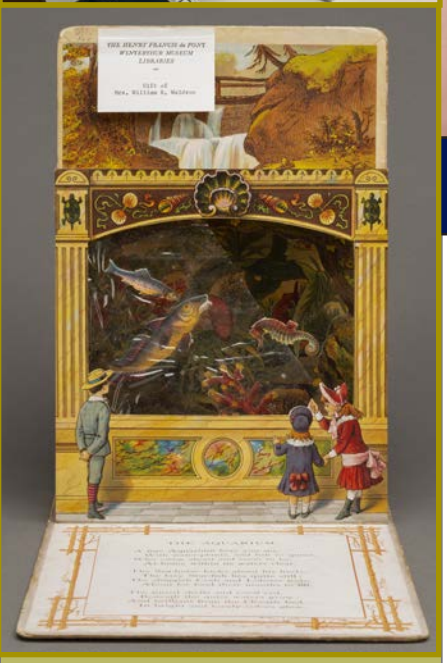
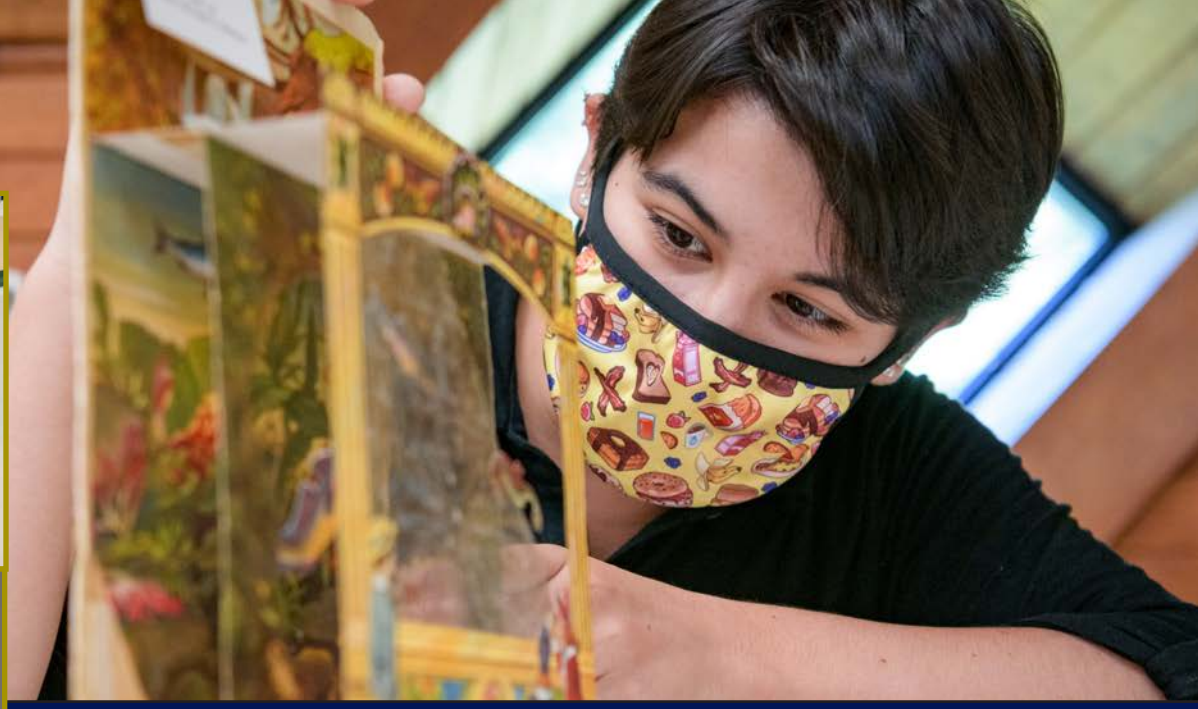




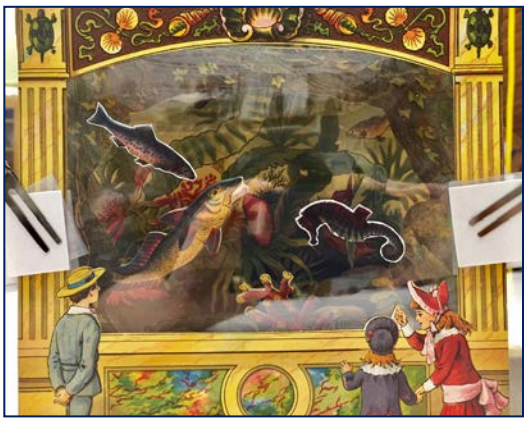


Art Conservation *and preserving a pop-up aquarium*

Toys are meant to be played with, and many little hands have clearly handled the bent and cracked late 19th-century pop-up book that this year became a treatment project for Winterthur/ University of Delaware Program in Art Conservation (WUDPAC) Fellow Jess Ortegon, a library and archives major with a minor in paper. Despite the pop-up book's condition, however, it is still intact and very colorful, reflecting the quality of the many children's toys made between 1850 and 1920 by McLoughlin Brothers, Inc., a well-known New York publishing firm. The colorful effect was achieved through chromolithography, a printing technique that replaced woodcut and wood engraving. It uses different lithography stones for each color in an illustration.

The pop-up book, now in the Winterthur Library's archives, dates from the early 1880s and is titled *The Aquarium: The Little Showman's Series*. It is constructed of two boards, hinged at the top, that open at a 90-degree angle to reveal a multi-layered pop-up scene. The pop-up's structure, called a "stage set" because it resembles a theater stage, allows a child to view the scene looking front to back. In *The Aquarium*, the scene is filled with aquatic creatures as well as a feature unique to this book, a clear sheet of film, identified as gelatin through scientific testing. A fish and sea horse attached to the film gave the illusion that they are swimming in the water behind the aquarium glass.

When Jess began their treatment, they found that the book was generally in fair condition and mainly required surface cleaning, consolidation, and mending of tears and losses in the boards. The only exception was the gelatin film. About one-third of this film had been torn or ripped away and a large, clear dot of adhesive indicated that an attempt had been made to repair it. The film also had tears and losses at the edges, insect damage, and warping caused by humidity. Jess first detached the gelatin film from the board and then separated the fish and seahorse from the film using moisture to loosen the adhesive. They will replace the gelatin with a Mylar encapsulation, reattaching the fish and seahorse to the Mylar using a paper v-hinge. The encapsulation will then be reattached to the pop-up. When Jess's treatment is complete and the pop-up book has been both stabilized and made more aesthetically pleasing, it will be returned to the Winterthur Library, where it will be ready for display.



ARTC Spotlight—January 2021

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 and inset: WUDPAC Fellow Jess Ortegon observing the initial condition of the pop-up before treatment, and using a micro spatula to gently separate the degraded gelatin from the structurally weak pop-up. Above: The pop-up before treatment. Right: Printouts of seahorse and fish were used in mockups to test different encapsulation treatments. Far right: Moisture was gently introduced to soften and aid removal of the gelatin and adhesive from the fish. Images: E. Krape and J. Ortegon.