

## Art Conservation and natural bistory collections



The University of Delaware's Art Conservation Department educates and trains professional conservators in the treatment, analysis, documentation, and preventive conservation of individual artifacts and entire collections. Our students are powerful public spokespersons for cultural heritage and its preservation. For more news about our students and other department activities, visit our web site at http://www.artcons.udel.edu

Top: WUDPAC Fellow Elena Torok inpainting areas of loss on the Blue Hen's wattle. Above: Elena performing mist consolidation of the Blue Hen's flaking paint,

and WUDPAC Fellow Crista Pack test cleaning the taxidermy barn swallow with vacuum and soft brush. Right: Barn swallow and chimney swift before treatment. Photos by A. Alexander, L. Fair, S. Levin, C. Pack.



Three long-dead birds have provided two Winterthur/University of Delaware Program in Art Conservation (WUDPAC) Fellows with treatment projects and a lesson on how different historical taxidermy practices can affect the work of present day conservators. Their projects also allowed Fellows Crista Pack and Elena Torok, working

under Objects Conservator Bruno P. Pouliot, to examine the materials and techniques associated with cleaning and reshaping feathers. As Crista and Elena found, it can be difficult to treat feathers, particularly when they are still attached to the bird.

Crista's project involved treatment of a taxidermied barn swallow and chimney swift and the 19thcentury traveling bird cage in which they were displayed. The birds and their cage, which was designed to mimic a Conestoga wagon, are part of the extensive collection of decorative arts at the Winterthur Museum. Elena treated a Delaware Blue Hen, one of a pair prepared in 1985 by the Delaware Museum of Natural History for an exhibition there. (Blue Hens, which are Delaware's state bird, are actually neither a recognized breed of chickens nor blue, but rather birds with feathers that are brown, black, or white with black splashes.

Some may have a few feathers that exhibit blue iridescence due to their structural colors, a visual phenomenon that results from the feather's unique physical morphology.) The bird belongs now to the Department of Animal and Food Sciences at the University of Delaware.

The treatment goal for all three birds was to prepare them for display, and as they were covered with dust and grime, this included cleaning. The two graduate students first determined through analysis how the birds had been prepared. They found that Crista's birds contained arsenic, a skin preservative commonly used before the 20th century. No arsenic was detected on the Blue Hen, but a sodium borate-containing compound was. Familiar to many as Borax, this much less toxic material was used extensively in 20th-century taxidermy preparation. Crista and Elena next determined effective treatment plans for their birds by researching and testing different materials and techniques previously used for cleaning and reshaping feathers. Due to the arsenic on her birds, Crista wore protective gear (including gloves, a face mask and a lab coat) and worked under a fume hood during cleaning. The students successfully reduced much of the dust and grime that had accumulated on feather surfaces and completed their treatments. The birds, looking much better, have returned to their respective institutional homes for display.