

# THE SUN



Conservation center uses art, science and a lot of care to clean the Maryland State Law Library's originals



Corine McHugh bathes a print from John James Audubon's "Birds of America" at the Conservation Center for Art and Historic Artifacts in Philadelphia. Over the past two years, the prints have been leaving Annapolis for the center. The spine of the book is pictured at top.

PHOTOS BY NANINE HARTZENBUSCH (SUN PHOTOGRAPHER)

## Restoring life to Audubon prints



Eraser crumbs are used (above) to clean the surface of a print. At right, Soyeon Choi uses a technique called "in-painting" to restore a print.



BY ANDREA F. SIEGEL  
(SUN REPORTER)

PHILADELPHIA // Conservator Anna Krain sprinkles what looks like grated Parmesan cheese on a 19th-century print of winter wrens and rock wrens.

But these crumbs are pure white vinyl eraser. Under Krain's gentle massage, they pull the top layer of dirt from this historic artwork in the Maryland State Law Library's collection of original *Birds of America* prints by wildlife illustrator John James Audubon.

Over the past two years, the prints have been leaving Annapolis for the Conservation Center for Art and Historic Artifacts, a non-profit workshop housed in a former ice cream factory. Here, they undergo a treatment that blends art, science and TLC.

In painstaking, if sometimes tedious, work, conservators lighten the stains, clean more than a century's worth of grime and fingerprints, uncrinkle the paper and mend rips on what are among the world's most readily recognized depictions of birds.

"The goal is not to make them look new. They have a long history," says senior conservator Joan [Please see PRINTS, 6A]



## NATION

FROM THE COVER

## With great care, restoring life to Audubon prints

PRINTS (From Page 1A)

A. Irving, the chief of paper conservation.

By the end of this year, the last of the prints will have gotten the spa treatment of massages, baths and touch-ups, and will roost again in the public law library. The price tag is \$300,000 — part of the \$854,000 the judiciary pumped into redoing its rare book room to accommodate this and other works, and get a custom-made case to display two Audubon prints at a time.

Why the state library chief chose to be among 200 subscribers of the prints Audubon was creating from 1827 to 1838 is not known. Neither is the price, estimated at \$1,000 to \$2,000. A full set of hand-colored etchings created from Audubon's paintings has 435 prints. Over the decades, five of Maryland's prints went missing.

So widely popularized are Audubon's birds that they are miniaturized in dime-store postcards, where they are hardly head-turners. But the real ones in full-size, vibrant colors and minute detail are mesmerizing. "If you look closely you can see the feather markings," says law library director Steven Anderson.

On any given day, the library's Audubon prints — each about 2 feet by 3 feet to show life-size birds — occupy tables, easels, racks and tubs in the sunlit building, consuming nearly all of the 5,000 square feet devoted to paper conservation.

"I'm a birder, so I am in heaven with these," says Ingrid E. Bogel, the conservation laboratory's executive director. "I am having a great time being surrounded by them."

Each print takes the equivalent of nearly a day or more for treatment. They've all been unbound from their books and had their "before" photos shot. Their paper and watercolor tints have been tested to ensure the care will not damage the historic artwork.

Conservators here have cobbled the tools of their specialized field from various disciplines — from bakers racks, chemists beakers, surgical spatulas and schoolhouse carts. Irving points to 2-pound scuba weights that are helping to flatten a print buried under protective white felt and boards.

On a recent day, Krain's white-gloved hands — to prevent adding finger oils to the print — rub circles of eraser morsels on an ivory background blotted with grimy smears and finger smudges. She delicately whisks a Japanese hake brush across the print's wrens and greenery, later enabling its soft sheep hairs to draw filthy eraser grounds into a pile.

The birds and the ferns start to come alive, the background brightens, as though Krain has peeled off a dulling film.

"It's a very light, subtle treatment," Krain says.

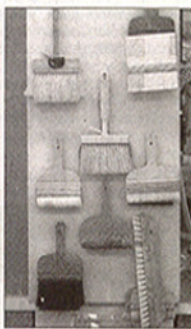
Rub too gently and the job's not done, the paper vulnerable to getting leftover dirt embedded in its fibers as the print continues through the spa treatment. Rub too hard and it could be bye-bye, birdie.

Less attention goes to the edges, worn and torn by thousands of fingers. Window mats will hide the discolored page corners.

Removing the fabric and animal hide glue falls to Heather Godlewski at the next table. She carefully rips off the backing as inch-wide strips crackle off the print of the evening and black-headed grosbeaks. Because the glue has dried out, "it's coming right off," she says. Later, she takes a surgical blade to the back of another print, gingerly prying up the edge of the backing, saying, "I don't want a mishap."

Today, conservators are not scraping glue off the prints. Sometimes, glue readily falls off; other times, conservators wait until the glue and paper have been water-softened.

The tub stands a few feet away,



Brushes hang on the wall at the conservation center, where the prints get lots of attention.

N. HARTZENBUSCH (SUN PHOTO)

but this is no ordinary bath. It sprays a shallow layer of calcium-enriched de-ionized water, which is less acidic for the paper and better at reducing the brown foxing that could have resulted from fungus, minerals, paper flaws or any of a number of other things, Irving says.

Cörine McHugh lays in two support mats topped by a print with dozens of hues of blue, that of the scrub jay, steller's jay, yellow-billed magpie and Clark's nutcracker. As it soaks up water, the print looks diseased: Tan stains deepen to dark brown. Gray blobs appear.

"It's just where the water is absorbed more," McHugh says.

The blues of the birds don't dissolve, Irving says, because watercolors grow less water soluble with age. Twenty minutes later, it takes two people to pull up the bathmats and their print, and lay the print on a baker's rack to dry. Tomorrow it will be pressed between felts, unless McHugh and Irving decide that it needs another bath.

Perched on an easel around the corner is the wild turkey, in need of the greatest rescue. One of the largest birds, it arrived with wrinkles and crinkles, ripped, even a foot torn off. Conservators relined the print with wispy Japanese paper made from kozo fiber, which comes from the mulberry family, using a wheat starch paste as adhesive. A foot was digitally reproduced from another Audubon — an extraordinary step — but "this was such an egregious loss," Irving says.

The vertical creases that sliced through the brown feathers were so stripped of color that they detracted from the print — a viewer's eye was drawn to nothing but blemish after blemish.

Under a 4-foot-long light, with beakers of chemicals and trays of watercolors at her side, Soyoon Choi is fixing that.

One of her many clear solutions of methyl cellulose will prevent the pigment from touching the paper.

"In-painting is done over an isolating layer," she says, placing a seed-size dot of the solution on her left hand. The skinny brush in her right hand takes a nearly imperceptible amount, and she feathers it into about a quarter-inch of the blank line.

Other prints will get smaller repairs. A spot on the background of the black-billed magpie is nearly eaten into a hole, and conservators will decide whether it warrants an application of kozo paper.

"Anything we do in conservation work, we do so that it can be reversible. We are aware that in the future something better may come along," Bogel says.

A 1921 effort to give the birds a boost is recognized as disastrous. In rebinding the books, the prints were artlessly clipped — birds' toes were amputated, for example. They were backed with linen for strength, but the fabric buckled and scraped the next print in the book and may have contributed to discoloration on prints.

What the conservators are doing is state of the art, says Catherine Maynor, paper conservator for the Lunder Conservation

Center at the Smithsonian Institution in Washington.

"Conservation is about a recognition of the integrity of the original artwork," Maynor says. "Audubon is part of our cultural heritage."

The Audubon prints "certainly have historic value as well as aesthetic and artistic value," said Joel Oppenheimer, a Chicago dealer specializing in Audubon and antique natural history prints.

Of 200 subscription sets that Audubon created, 112 intact sets survive, Oppenheimer said. A complete set in pristine condition in original bindings would sell for \$10 million to \$15 million. But Maryland's set is incomplete, blemished and unbound.

Print by print, a set can fetch \$7.5 million, though he guessed that Maryland's might be worth half that. The library will probably seek an appraisal next year.

And there's a final step. Each print gets its "after" photos shot before heading home.

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