

If a disaster hits, the document docs are ready

By Edward J. Sozanski
INQUIRER ART CRITIC

The history professor had been working on his book for years when his house caught fire. His computer and all his manuscript disks were destroyed, but fortunately a paper copy of the text survived.

He took the charred, water-soaked bundle to the Conservation Center for Art and Historic Artifacts on 23d Street in Center City. There, in a bright, high-ceilinged laboratory, specialists in restoring old and damaged documents to good health carefully washed the sooty pages to reveal the text and photocopied them to create a sturdy duplicate.

Yes, paper can be washed.

Specialized labs like the Conservation Center do it routinely to remove dirt and flush out impurities deposited in the fibers as the paper ages.

Washing not only cleanses the paper but puts moisture back into its fibers, which reverses the aging process.

But don't try this at home. You're likely to end up with mush.

Sarah Chang, the teenage prodigy violinist from Cherry Hill, would have lost her archive of personal and publicity photographs had the center's conservators not intervened quickly. At her home, Chang stored the photos in the basement — which flooded, soaking the prints.

Glen Ruzicka, the center's chief conservator, explained that a quick response is especially important with photographs because "as they begin to dry they stick together, and you lose the emulsion."

Disaster calls aren't daily occurrences at the center, one of only two labs of its kind in the country. (The other is near Boston.) But knowing

how to respond to a disaster — anything from a tornado or a fire to a broken water pipe — is vitally important for any institution that owns lots of books, paper archives or irreplaceable artworks such as drawings and prints.

Many such institutions are located in the Philadelphia area, but most can't afford staff conservators or the equipment needed to properly restore and stabilize books, documents, manuscripts and artworks on paper. So they turn to the Conservation Center for technical assistance and hands-on doctoring.

The center, a nonprofit institution, is completing a four-year project, funded by the William Penn Foundation, to help 76 museums, historic houses, libraries and other institutions with historical collections identify conservation problems and

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Soiled artwork for a Rutgers exhibit is washed by Susan Filter.



The Conservation Center's Jane Smith removes spots from a sketch.

Document docs treat old papers

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develop plans to improve the preservation of their collections.

Last fall, the foundation gave the center another grant, of \$435,909, to help institutions prepare for and respond to disasters. This project, which will take three years, will involve providing technical information, presenting workshops, formulating disaster-response plans and training groups of volunteers who can provide immediate disaster help.

Earlier this year, the National Endowment for the Humanities gave the center a grant of \$210,117 to conduct conservation surveys and workshops at institutions with paper-based collections related to the humanities. This program, also scheduled for three years, covers the mid-Atlantic region — from New York state into Virginia.

Prevention and preparedness are important, which is why the center has three professional "field service" staffers who concentrate on these issues. They survey collections, conduct workshops and offer technical advice.

But paper is a fragile, organic material that can be damaged in many ways by a host of agents, from fire and water to insects, mold, chemicals, sunlight and even dust. When damage is done, the conservators and technicians at the center (seven of each at the moment) take over.

They see their share of exotic problems. For instance, someone needed information from the label on a Chevrolet Corvette muffler that would determine if the muffler were original to the car. The heat-blackened and oil-stained label, attached to a chunk of steel, arrived in the mail.

The conservators carefully cleaned the fragmented label with erasers and organic solvents, then lined it with tissue-thin but extremely strong Japanese paper, a material from vegetable fibers, manufactured only in that country. Japanese paper solves many of the center's repair needs.

Several years ago, the National Park Service called a crew from the center to Cumberland Island National Seashore, off the Georgia coast, to restore wallpaper in a mansion once owned by Andrew Carnegie. "This was our toughest job, because we had to take everything we needed over by boat," recalled executive director Linda V. Ellsworth. "We were there two weeks."

Treating wallpaper in situ is one of a conservator's more challenging tasks. Just before the movie *Wolf*, starring Jack Nicholson and Michelle Pfeiffer, was to be shot at Old Westbury Gardens, a mansion on Long Island, a furnace puffback coated the wallpaper in the house with a film of soot. Once again, a Conservation Center crew hit the road to put things right.

Since it was founded in 1977 by Marilyn Kemp Weidner, an independent conservator from Philadelphia who subsequently returned to private practice, the center has handled a wide variety of prestigious commissions.

For instance, conservators cleaned and repaired an engraved copy of the Declaration of Independence at the White House. The parchment copy was one of a limited number commissioned by Congress in the early 19th century.

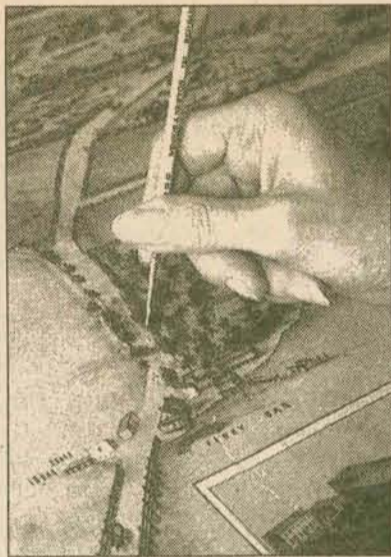
In addition to holes caused by pins or tacks, the document suffered from rust stains, tears and distortion from stretching. After it was cleaned and repaired, it was given a special string mount to prevent further tearing as the parchment expanded and contracted, Ruzicka said.

Thomas Jefferson's architectural drawings for the University of Virginia had been laminated between sheets of cellulose acetate with a heavy adhesive. Adhesives are perilous to paper, so the center's conservators were called on to undo the lamination.

Folding is similarly harmful to a document in the long term. Jefferson's handwritten draft of the Declaration of Independence, owned by the New York Public Library, was tearing on its folds and stained, as well, by tape adhesive. The tears were repaired with the old standby, Japanese paper.

Most of the 1,800 or so projects that the center handles in an average year represent a half-dozen types of general problems, Ruzicka said. These involve brittle paper, deterioration of mountings on artworks, water and mold damage and rotted book bindings.

Two current projects involve a



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Paint is used to cover age blemishes on an old map.

large 19th-century Bible that belongs to a church in Maryland, and a 16th-century manuscript in a 19th-century binding.

The Bible had been "restored" once before, but not to its benefit. "All the signatures had been cut and resewed, and the leaves [pages] trimmed to make the book square," conservator Rolf Kat said. "But the new sewing put too much strain on the pages when you opened the book, and most pages were torn along the spine."

To restore the Bible to prime health, Kat took it apart, washed and de-acidified the pages and reconstituted the original signatures. Then he resewed the signatures into a block with a rounded spine so the book would open properly. After reinforcing the spine with strips of Japanese paper and Irish linen, he covered it with a new leather binding.

The 16th-century manuscript demonstrates a more exotic brand of restoration magic. The spine of this book was slathered with animal glue, which insects devour for protein. It was so badly damaged by water and mold that every page was partially eaten away.

For a problem like this, Ruzicka said, the center turns to its pulp caster. This machine restores a damaged page to its original dimensions by filling in the lost areas with paper pulp. "There's no adhesive," Ruzicka said, "it's a fiber-to-fiber bond."

In keeping with current conservation philosophy, all treatments are easily reversible without risk of further damage. For example, no longer are documents laminated in plastic, as your driver's license is, but loosely encapsulated in polyester films, using an ultrasonic welder that makes a smooth, nonstick seal.

Another major project of the moment involves a batch of artworks from the Norton Dodge Collection of underground Russian art. These were consigned by the Zimmerli Art Museum at Rutgers University, which in October will open a permanent display drawn from this collection.

The works are particularly problematic, according to senior conservator Susan Filter. "Things are stuck together because of sticky media, and

there's some paper mold. Some things are coming apart and some have grime from handling, embedded in the paper. You can't get that out."

Filter's task is to decide what treatments are needed and to put the artworks in shape to be exhibited.

Treatments are decided through consultation with the clients. Usually the clients accept the recommendations laid out in the report that's prepared for every object that comes through the door. But not always.

The Maryland Historical Society of Baltimore brought in a huge illustrated map of Baltimore that had been framed and fastened to a wall. The 1868 map had been printed in 12 sections, which were glued to a linen backing.

The map is so large — nearly 5½ feet high by 11 feet wide — that it presented a storage problem. The historical society asked to have it separated into its 12 component sheets, which could more easily be stored away from light.

Conservator Sue Campion, who has charge of this project, said the center argued for keeping the map intact. "We gave them the option of a rolled housing so they could keep it in a single piece, but they opted for disassembling it, even though it's more expensive."

But the map is old and brittle. How to take it apart safely? Campion turned to another conservator's trick. She laid strips of Gore-Tex, the synthetic fabric, on the seams and then applied water.

Gore-Tex has an unusual property, she explained. "It allows water vapor to pass through but not the water itself, so you can humidify something without getting it wet. This makes it useful for softening adhesive."

Such expert ministrations does not come cheap. Private individuals pay \$85 an hour for a conservator's time and expertise. The more than 170 nonprofit organizations in the mid-Atlantic region that are members of the center pay \$10 an hour less.

Preventing damage usually costs less than fixing it, which is the rationale behind the new programs being supported by the William Penn Foundation and the NEH. Still, when fungus begins to grow on your great-grandmother's wedding picture, it's comforting to know that someone in town has the proper medicine.