Painting before conservation (above) and after conservation (below)

When Old Mauch Chunk Was Young

Conservation of the 30x40-inch 1925 oil painting by William D. White

by Nancy Carol Willis, William D. White Biographer

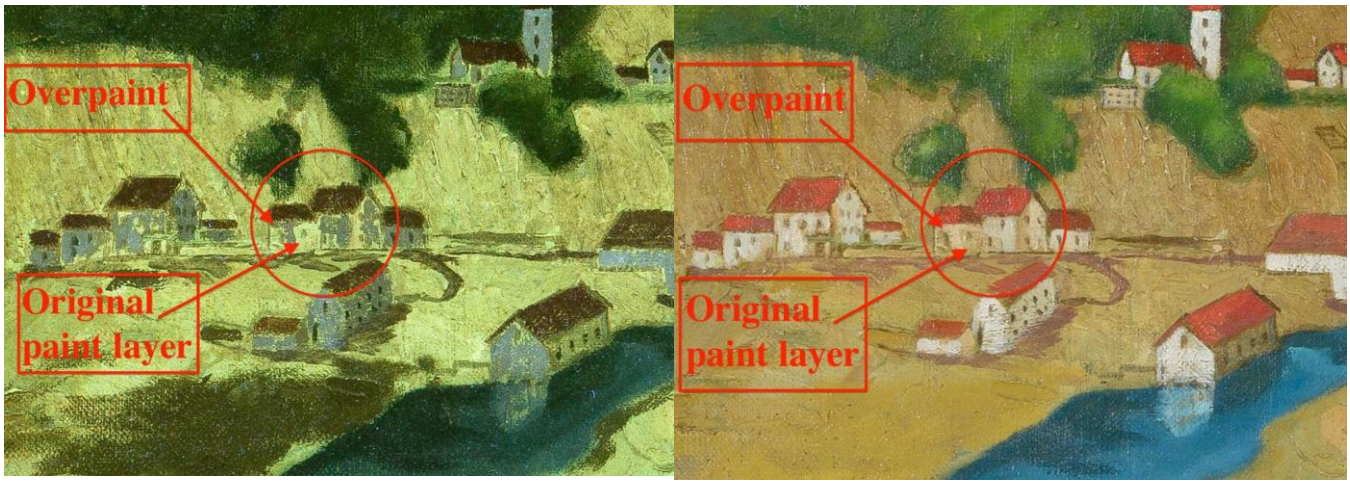
Around1991, Steven Leech and I were contacted by a man who had discovered a large oil painting by William D. White while cleaning out a library. He conducted some research at the Delaware Art Museum and concluded that the painting might be worth some money. However, the painting had condition issues, so he hired an artist friend to "freshen up" the painting by overpainting the oil paint with acrylic. Unfortunately, many well-meaning folks have unintentionally damaged their oil paintings in an effort to clean or repair them. Professionally-trained conservators recount horror stories of paintings cleaned with dish soap or rubbing alcohol, or coated with linseed oil as a conditioner, like hand lotion. They've seen holes in the canvas that were spackled or patched like bicycle tires. Sometimes paintings have been overpainted to brighten areas dulled by grime. These home remedies have invariably caused more problems than they've solved, and often do irreversible damage.

The preservation, conservation, and/or restoration of works of art is a complicated practice and should be handled by a trained professional who has studied chemistry and art history and has a graduate degree in art conservation. The practices and materials applied to the treatment of *When Old Mauch Chunk Was Young* were tested and customized for this specific work of art.

Phase 1: Examination and Testing

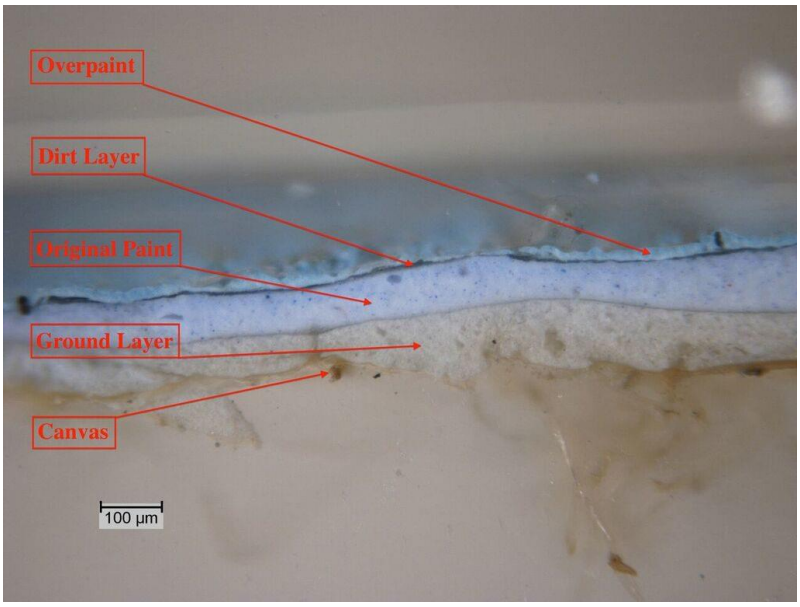
The restoration team at the conservation studio of Winterthur Museum examined and tested various gels and petroleum-based solvents to determine the best treatment process.

Since overpainting was a confirmed issue, *Old Mauch Chunk* was first viewed under ultraviolet light to determine the extent and locations of the overpainting. Ultraviolet photography revealed overpainting throughout the painting, most notably in the green trees and red house roofs. In the UV detail photo (below left), the gray color indicates overpainting, while the brighter yellow is the original paint layer.

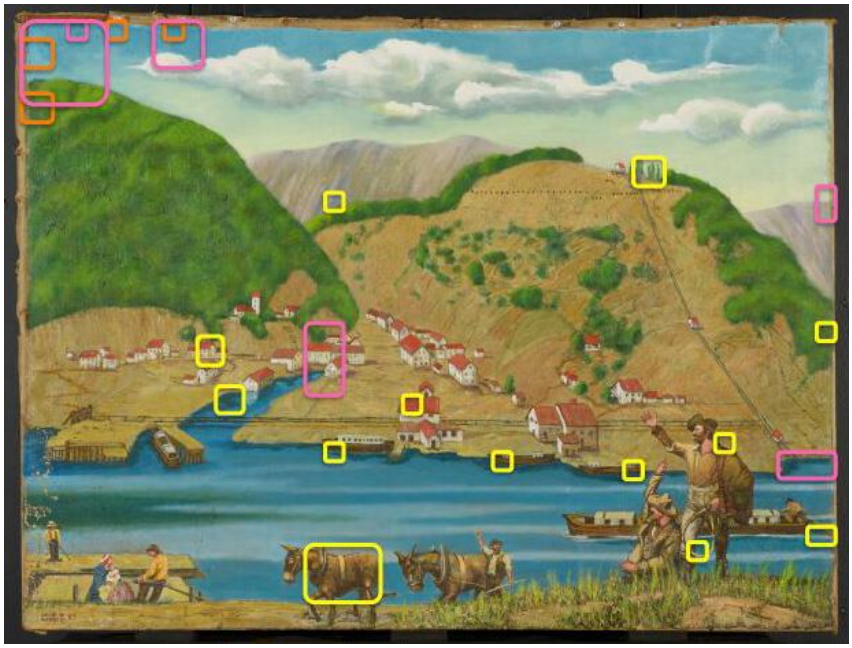


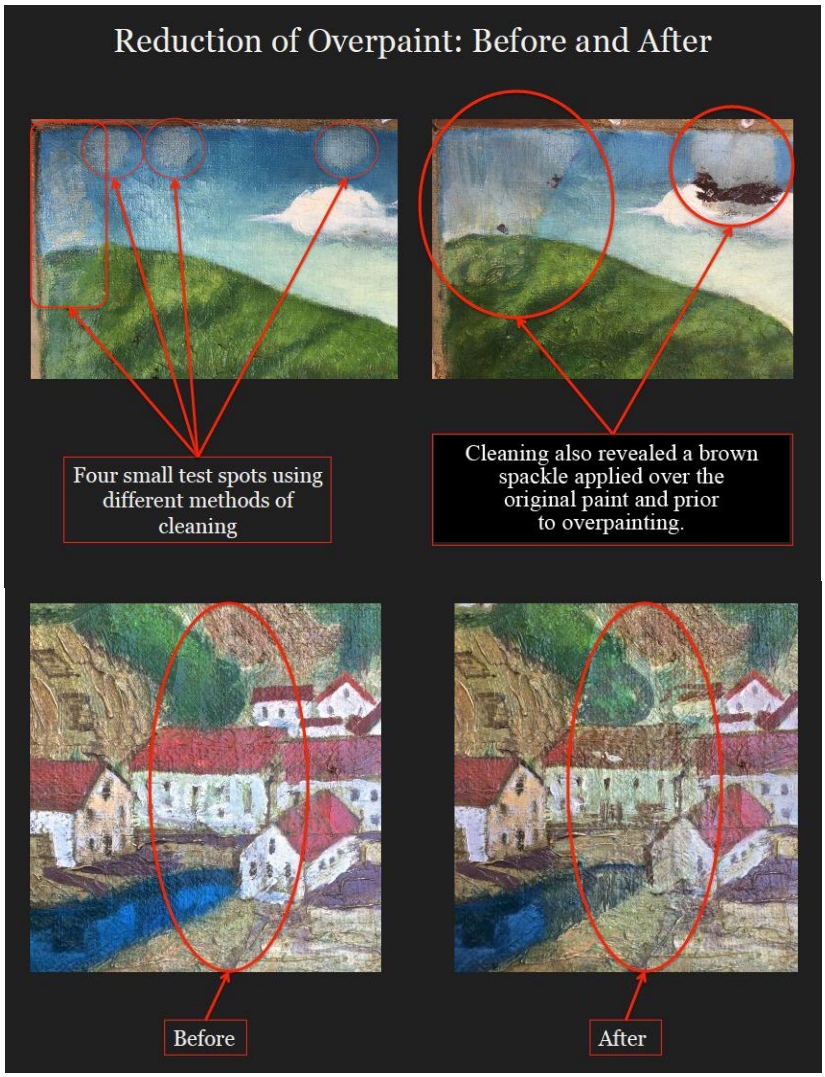
Next, intern Melissa King (below left), took pinhead-sized paint samples and sealed them in resin cubes in the red container. When the resin hardened, a cube was placed into a special sander. The polyester resin material was sanded away to reveal a cross-section of the paint sample which was examined under a microscope. The photograph (below right) shows the various layers of overpaint, dirt, original paint,

ground, and canvas at 10x magnification. These cross-sections confirmed the presence of overpaint on the majority of White's painting; a previous owner had asked an artist friend to “freshen up” the painting and, unfortunately, the friend completely repainted the surface of White’s original painting using acrylic paint. The resulting overpainted work is jarringly bright, ignoring White’s typical color choices.



In order to remove the acrylic overpaint without affecting White's original oil painting, project leader, Charlotte Adams Brooks (below right), tested select areas of *Old Mauch Chunk* with various solvents. For example, a petroleum benzine mixture and several different types of carbopol gels rendered the best results in the areas marked in yellow. In this photo Charlotte uses a cotton swab to test a small area of the painting.



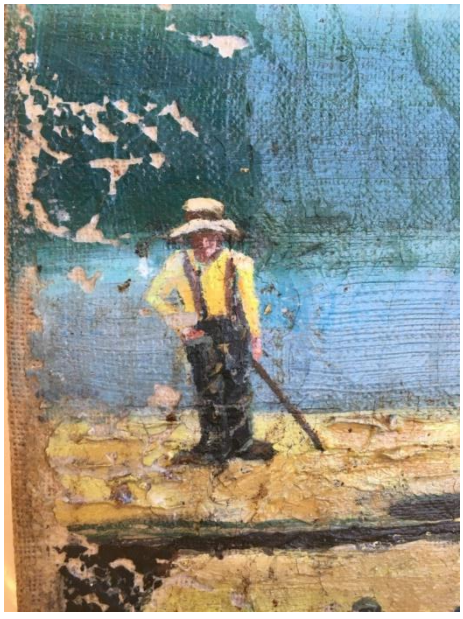


To reduce the overpaint, the interns, under the direction of Dr. Joyce Hill Stoner, have tested different kinds of mineral spirits and gels with added solvents of varying degrees of strength. After testing, a safe and effective solvent gel can be selected. Lead intern on the project, Charlotte Adams Brooks, has begun to carefully reduce the overpaint in selected areas. The "After" photo (below left) reveals William D. White's sophisticated color palette and details obscured by overpainting. Note how the reflection of the house in the water and subtle color variations in the building and foliage are now visible.

An important step in PHASE 1 includes taking steps to ensure that the painting can be safely handled. The actively flaking bits of paint have been consolidated with a reversible adhesive to ensure their stability while the back of the canvas is being treated. The next stage will be to remove or reduce the black paint and plastic tape on the back of the canvas as much as is safely possible. The distortions in the canvas will be leveled without putting stress on the paint, and then the rest of the overpaint can be reduced.

Phase 2: Conservation of the Canvas Support: Removing the old restorations, bringing the canvas into plane, and lining onto a stable fabric.

Step 1: Removing the old restorations



Around 1991 a man rescued the painting, *When Old Mauch Chunk Was Young*, from a Delaware library clean-out. He hired a friend and amateur artist to "freshen up" the painting by overpainting much of the oil painting with acrylic paint. In Phase 1 tests were made to determine the proper combination of solvents and gels needed to remove the overpaint without removing the original oil painting underneath. Phase 1 also included consolidating areas of the painting that were flaking with a reversible glue (photo, right),

However, the plastic tape shrank over the years, causing the canvas to shrink as well. The result caused the canvas to pucker and the paint to flake in areas. Even worse, as the canvas shrank, it tore away from tacks along the tacking edges, particularly in the corners.

The painting was placed face down on cardboard covered with blotter paper. The tacks were removed to release pressure on the canvas. Debris that had gathered in the corners was carefully vacuumed away. In this photo (right) project leader, Charlotte Adams Brooks, uses a scalpel to meticulously scrape away tiny pieces of the tape.

Step 3: Lining the canvas onto a stable fabric

Before *Old Mauch Chunk* could be re-tacked onto its original wooden stretcher, the canvas needed to be brought into plane and attached to a stable fabric lining. The supporting lining fabric was necessary due so that issues with the reverse side of the canvas could be addressed. Once completed, the canvas could be turned face-down and removed from the wooden stretchers.

Step 2: Bringing the canvas into plane

The process of bringing the canvas into plane, or level, required several steps. The photo (left) clearly shows the extent to which the canvas had puckered and buckled due to "treatments" to the obverse, or back side, of the canvas. A black plastic tape was applied in a Union Jack formation. Then black house paint was applied over the tape (photo, below left).

In one respect this unusual application of ordinary house paint and tape may have protected the canvas from the effects of mold and humidity, since the painting was stored for almost 25 years in a facility without climate controls.

to the extreme distortion of the original canvas. In addition, the damaged and torn tacking edges could no longer be used to secure the painting to the stretcher.

First, the canvas was placed in a relative humidity chamber for six hours at 80% RH to make the cupped and curled oil paint and creased canvas support more pliable. Next, the painting was placed face up on a vacuum heat table. Heat was turned on, a vacuum was drawn, and the painting was gently coaxed into plane. Excess moisture was removed by placing the painting under blotters and gentle overall weights for several days. Nancy Carol Willis (below) observes Charlotte Adams Brooks burnish the Mylar.

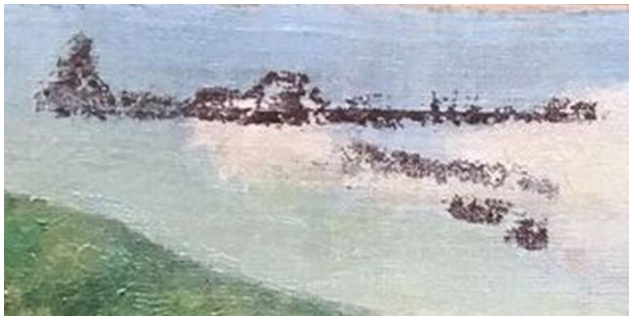
Then a special stable and inert lining fabric was prepared with a reversible heat-activated ethylene vinyl acetate adhesive. The now-planar painting was placed onto the prepared lining fabric face up on the vacuum heat table and covered with a single piece of very thin Mylar. Heat from the table warmed the fabric, adhesive, and original painting to about 140 degrees Fahrenheit, activating the adhesive while the vacuum pump was turned on, and causing a perfectly planar canvas to adhere to the fabric lining. The lined painting was cooled to room temperature under vacuum for three hours.

Next, the lined painting was tacked onto the original stretcher, which had been cleaned and made ready for Phase 3.

Phase 3: Inpainting and Frame Conservation

Step 1: First, the painting was brush varnished with a reversible, isolating, and saturating acrylic varnish. Next, areas of paint loss were filled with a reversible gesso putty.

Step 2: Inpainting is a restoration process to re-establish color or detail to losses in the original paint layer. In this process, pigment in a binding medium is applied by brush. With Old Mauch Chunk, inpainting was also required to cover old spackle fills (brown areas) from the previous restoration attempt which were too insoluble to remove safely. These photos (below) show a detail of the sky before and after inpainting. The brown area shows spackle that was applied c1991.



Lead intern, Charlotte Adams Brooks carefully applies paint to areas of loss. All filling and inpainting was done with conservation materials tested for longevity and reversibility, such as Golden poly(vinyl acetate) conservators' colors or Gamblin aldehyde conservators' colors, and all compensation will be limited to losses, not covering any of the original paint, as had been permissively done in the previous restoration attempt. Retouched areas can be distinguished from the original paint under ultra-violet light.

In the detail images of the lower left corner of Old Mauch Chunk, note the differences before (below left) and after (belw right) inpainting. Because of paint loss and extensive overpainting during the early 1990s, Charlotte Adams

Brooks referred to the 1925 published illustration to ensure accuracy. Julianna Ly, a pre-program intern in paintings conservation at the Winterthur/UD Program in Art Conservation, completed the inpainting process.

Step 3: Finally, Julianna Ly treated the frame to remove dark, oily stains, especially apparent on the lower left corner.