



Art Conservation *and the fragments of history*



When it was made almost 200 years ago, the striking, three-tiered chandelier offered a twinkling welcome to people accustomed to nights lit mostly by the moon and stars. Thought to have been commissioned sometime between 1820 and 1850 to hang in a public theater in New England, the chandelier is constructed of tinned sheet iron and stands almost three feet high. The chandelier today is part of the decorative arts collection at Winterthur, where it usually hangs in the Hall of Statues on the museum's fourth floor.

ARTC Spotlight—December 2012

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 image: WUDPAC Fellows Courtney Von Stein and Becky Kaczkowski clean the exterior

surfaces of the chandelier using light suction and a soft brush; inset images: Courtney and Becky remove loose surface dirt from the chandelier surface using a soft brush and HEPA-filtered vacuum (photos: Bruno Pouliot). Above: Overall view of the tinned-iron chandelier, before treatment (photo: Crista Pack and Bartosz Dajnowski).

In the fall of 2011, the chandelier was de-installed due to structural concerns. It is now a treatment project for Winterthur/University of Delaware Program in Art Conservation (WUDPAC) Fellows Courtney Von Stein and Becky Kaczkowski, who plan to repair, clean, and stabilize the fragile object in time for it to be reinstalled early in 2013. Courtney and Becky first completed a conservation report that helped determine their treatment plan. They found that the chandelier, constructed of S-curved branches arranged around a tapered cylindrical central column with a conical top, had been weakened by corrosion that has also caused it to darken. The corrosion, along with an inherent tension built into the chandelier at each solder point, make the object susceptible to structural breaks. For example, the crosspieces that connect the branches are molded and then soldered at every junction on the lower tier to form an imperfect circle almost 44 inches across at its widest point; these junction points have been repaired many times over the years through traditional soldering methods or modern synthetic adhesives.

When making repairs, Courtney and Becky will identify and use more sympathetic materials, likely a combination of an adhesive and backing material. Their goal is, through testing, to find an adhesive that bonds well to a corroded metal surface and that, in combination with the proper backing material, provides strong but flexible joints holding the different components together during static display and while the chandelier is reinstalled. Another treatment goal is to remove grime and dust from the chandelier's surface using materials such as cosmetic sponges, dry swabs, or solvents. Courtney and Becky also intend to stabilize, but not remove, the corrosion by applying a corrosion inhibitor that will protect the surface without changing its appearance. As part of the chandelier's history at Winterthur, it has been electrified and de-electrified; Courtney and Becky are investigating lightweight candle alternatives to be sympathetic to the fragile structure of the object and also provide the aesthetic of a functioning chandelier.