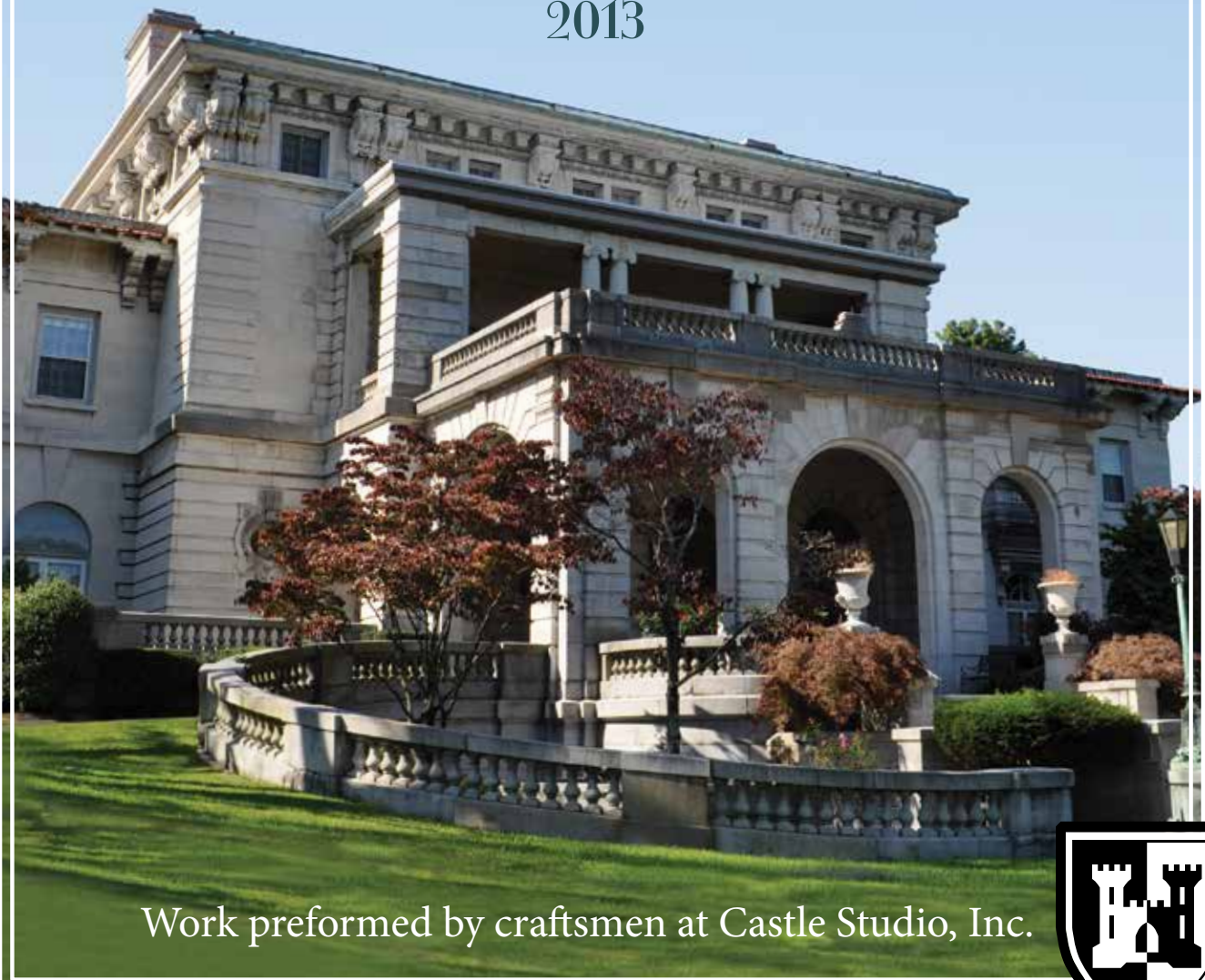


*The
Art Glass
Restoration
at*

Elstowe Manor, Elkins Park, PA
2013



Work preformed by craftsmen at Castle Studio, Inc.



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It was a real pleasure to be commissioned to perform the restoration work on the art glass at Elstowe Manor. With all stained glass restoration and conservation projects, we consider it our responsibility to treat any window in our care with the greatest of respect. We know that it is of the utmost importance to use only the highest craftsmanship during the restoration process in order to regain the proper structural integrity, and in turn, the original beauty of the window as a work of art. All of our artists are dedicated to properly preserving these beautiful pieces of history.

We at Castle Studio would like to thank everyone involved with this project through the assemblage of this booklet, which documents the many phases of the restoration process. I am very pleased with the outcome of this project and am confident that what we have accomplished will now preserve the beauty of the art glass for many years to come.

Randall Claggett
President, Castle Studio, Inc.

Special Thanks

Dominican Sisters of Peace

Sr. Anne Lythgoe, OP

Martha Snider

Amy Ragsdale

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Dominican Sisters of Peace

In 1932, the Dominican Sisters of St. Catherine de' Ricci purchased the Elkins Estate and converted Elstowe Manor into a retreat house for women. The original art gallery of the estate, which housed the Elkins collection that now resides at the Philadelphia Museum of Art, was converted and expanded into a chapel sanctuary and sisters' choir in 1938. Over the next 75 years, the Sisters maintained and operated the estate as an oasis of peace and tranquility for thousands of women and men who came to enjoy the quiet and beauty of the grounds and buildings. When people from all walks of life and circumstances entered Elstowe Manor, they were transported to an overwhelmingly beautiful space that invited reflection on the deeper values they were seeking: beauty, peace and a sense of being part of something larger than themselves. The ornate Trumbauer architecture inspired many people with a sense of awe, to others it was an invitation to prayer, to still others a moment of gratitude and wonder.

The Dominican Retreat House, as Elstowe Manor was known, offered women a chance to come away from their daily routine for some much needed rest, quiet and spiritual input from the sisters on the staff and from visiting clergy. Central to this ministry was the chapel space, originally the art gallery of Elstowe Manor. The stained glass ceiling above the elliptical stairway was a source of inspiration and awe. The skylight above the chapel served as a source of natural and spiritual light.

Over time, the sisters acquired Cheltenham House and named it St. Dominic Hall, where they conducted retreats for a growing diversity of needs including programs for people dealing with addictions, for married couples, single women, for professional women and a host of other programs of spiritual renewal. They converted the powerhouse into a convent and retirement community for its members and used the other buildings on the estate as offices and cottages for the sisters and built greenhouses to cultivate flowering plants and gardens.

In 2007 the sisters withdrew the ministry from the estate in the face of challenging economic demands and the changing needs of the people they served. After a brief interim period, they continue to own and steward the estate. In the meantime, in December of 2012, the Dominican Sisters of St. Catherine de' Ricci merged with the Dominican Sisters of Peace.

By 2012, the stained glass ceiling leading and the etched skylight began to show their age and need for attention and strengthening. Thus, the artisans of Castle Studios were called upon to provide the needed delicate repair. With the completion of this restoration, the Elkins Estate, still under stewardship of the Dominican Sisters, is being prepared for the future. Poised for a new era, the ceiling and skylights will serve visitors and friends alike for a very long time.

Written By: Sr. Anne Lythgoe, OP,
Dominican Sisters of Peace



Dominican
Sisters *of Peace*
Sisters and Associates
in Mission

The Stained Glass Ceiling

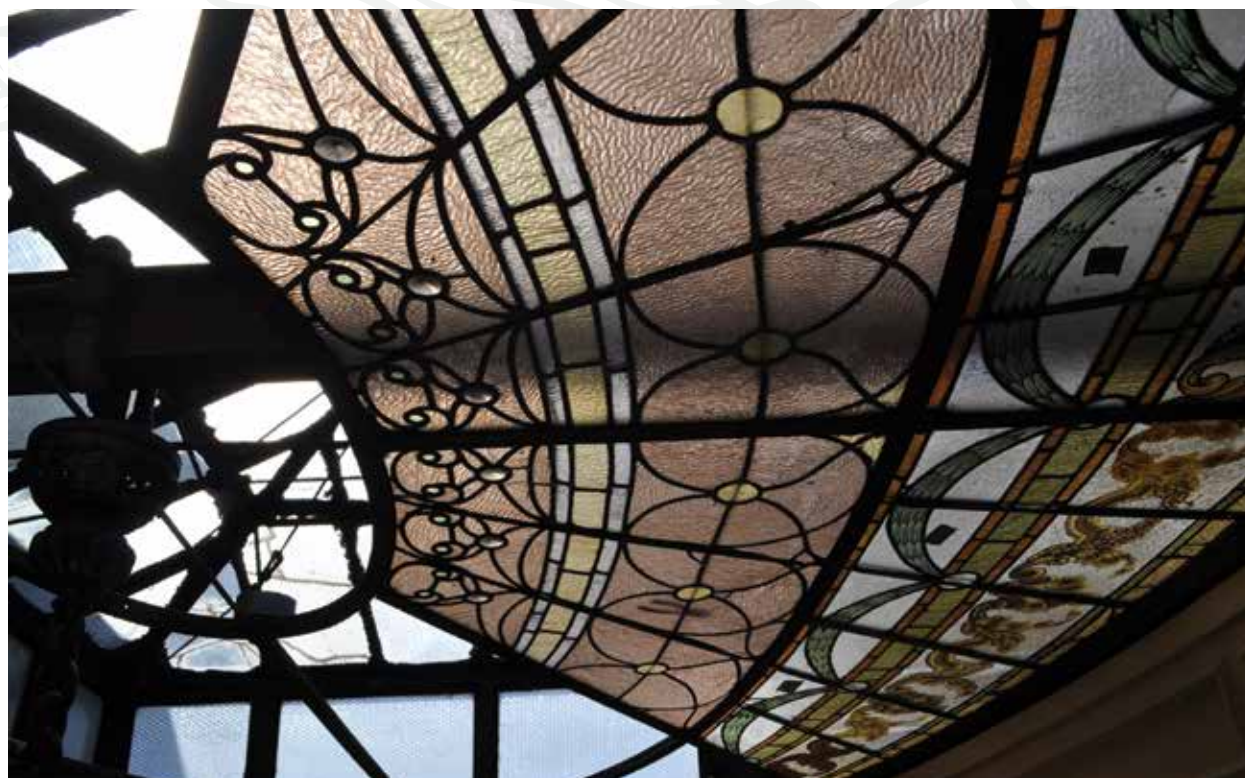
When we were asked to visit the former Dominican Retreat House this year to offer ideas to restore the oval stained glass ceiling, I noticed some of the many problems that occur with stained glass ceilings of this age. There were several window sections that were nearly ready to fall the 30 feet to the floor below. Several “T bars” in the steel matrix of the frame had become loose. Poor repairs over the years had left the stained glass sections riddled with new lead lines to hide cracks as well as mix-matched glass repairs.



The current bar design did not offer the proper support that a stained glass ceiling requires. Many of the support bars had released from their panels, allowing gravity to take its toll and begin to buckle the lead-work.



The entire painted perimeter border design had decayed to a point where the original design was barely noticeable. Several of these painted sections had already fallen to the floor and had been replaced with cardboard.



Immediate attention was required to save this treasure. Scaffolding was erected to the height of 25 feet with a full deck below the ceiling. We then catalogued each section of stained glass ceiling and proceeded to remove the individual panels from the steel frame. Unfortunately, the steel frame was bolted together at the intersections of the matrix. These bolts prevented the individual panels from sitting on the steel “T bars” in the corners.



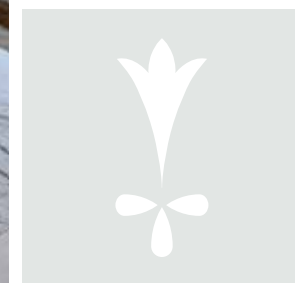
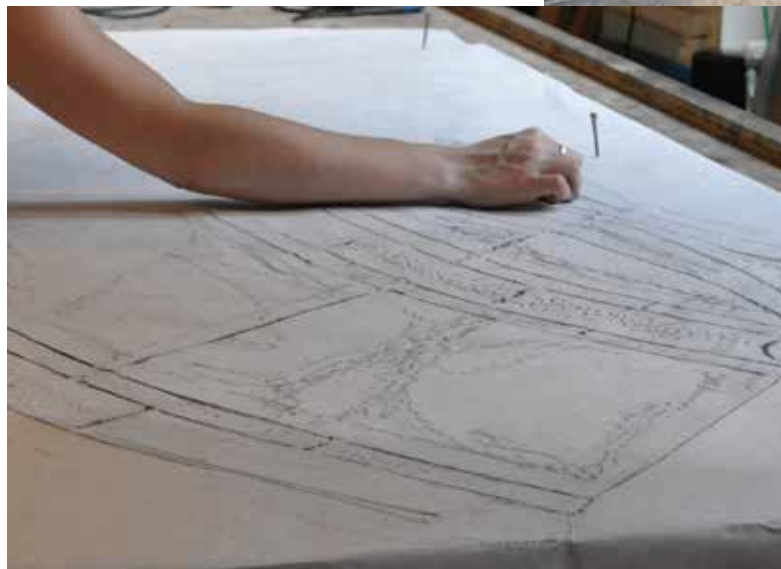
The original installers of the ceiling simply removed the lead and portions of the glass in the corners of the panels to allow each section to pass the bolts. Glazing compound was used to hide any damage caused, which hardened over time and now needed to be removed with a chisel and hammer.

The window sections once removed were carefully lowered to the balcony level below, where a craftsman could take them to Elstowe's dining room to await restoration. Now that the panels were removed, it became necessary to cut a plywood template for each panel that identified the location of the bolts. The templates, in conjunction with the rubbings, allowed us to build the new sections to their new shapes. These new shapes will pass easily by the bolts and will prevent any on site damage during the re-installation.



We transported four to five sections at a time to the studio where their long awaited restoration began. The first step was to remove the support bars.

After cutting the support bars loose, a rubbing of each panel was taken to properly document the original lead matrix.



Each section was then carefully disassembled using lead dykes and a dremel.

After the panels were disassembled, each piece of glass was cleaned and placed on a tray to await fabrication.



During this phase, broken glass was replaced with an appropriate match. Any decayed painted pieces were replicated and added to the trays prior to the re-leading process.

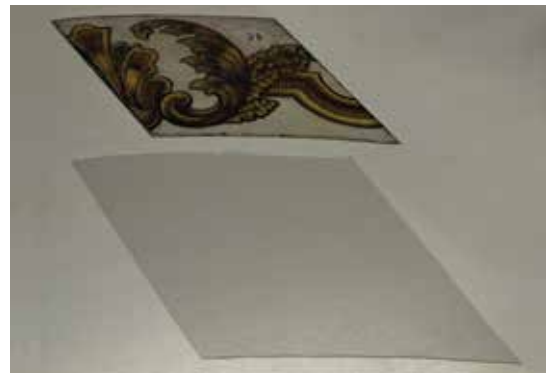
Each panel was then re-leaded using a special lead alloy made for this project.



This alloy offered us a stiffer lead coming, which in the long run, will help the ceiling last longer.



The following photos represent the 5 phases of the painting replication process. Each piece had to be fired to 1200 degrees in our kiln before the next coat could be applied. There were 40 pieces to replicate around the perimeter of the design. The piece shown below was identified as pane 38.



1. A new glass blank is cut to match the pane being replicated.



2. The glass blank is placed on top of the original and the dark lines are traced with a brush by hand.



3. This is a completed tracing of the original.



4. This is the first matte coat over the tracing.



5. The matte coat is then dry brushed to reveal the highlights.



6. The second matte coat is applied and the highlights are again restored using a dry brush.



7. The third coat is applied, this time a dark stipple type of finish and the highlights are restored.



8. This is the finished piece prior to the silver stain.



9. Silver stain is applied to the back of the piece and fired to 1000 degrees.

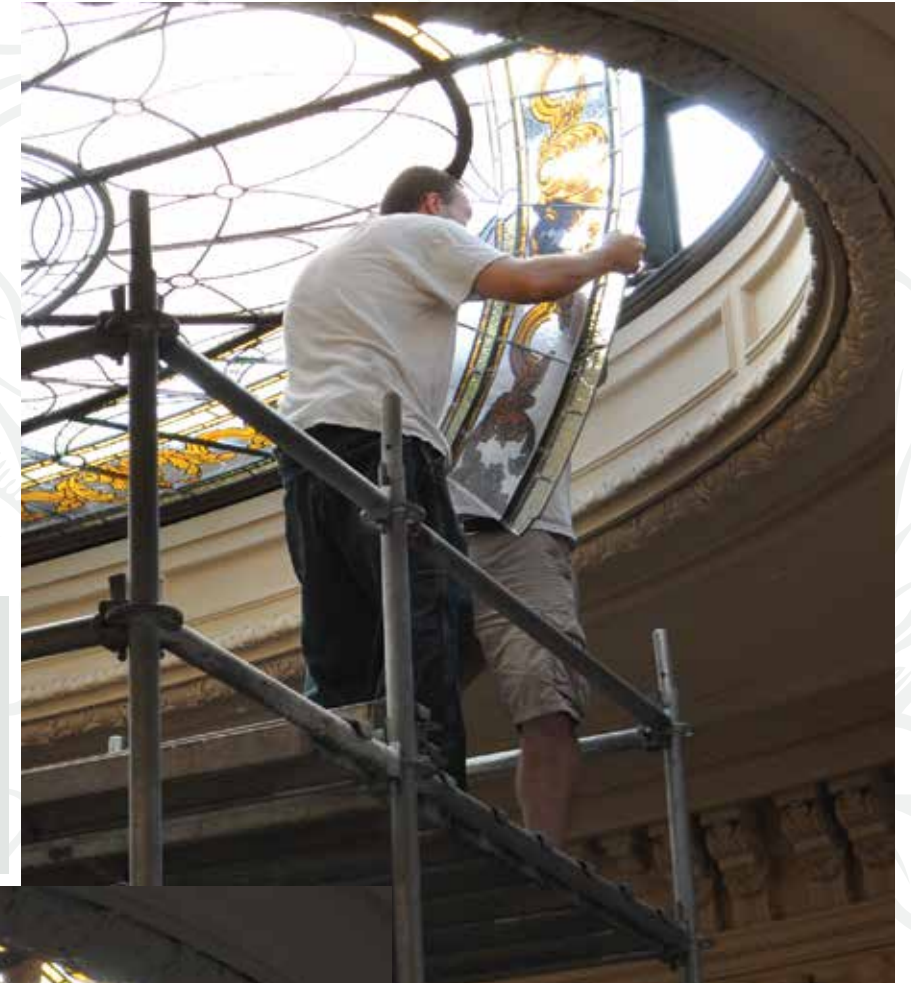


10. After a total of 5 firings, the finished pieces is ready.



After the stained glass panels were completed, they were returned to their original openings and checked for balance and size. Should there have been a need to make any modifications, they would be removed and repaired in a studio environment.

Fortunately, our choice to make templates for each panel paid off and each panel was successfully installed with no issues.



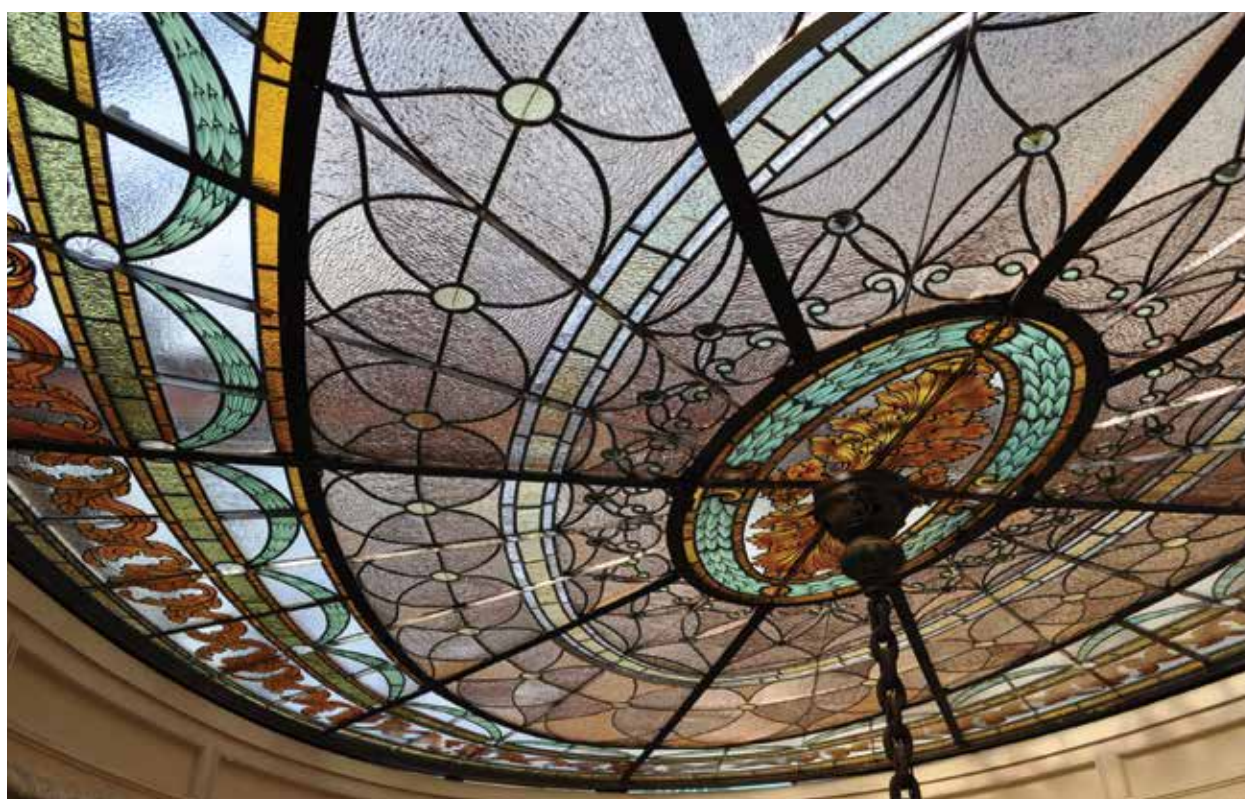
The last panel was finally installed.





The finished stained glass ceiling revealing all the same beauty and charm as the first day that it came to Elstowe Manor.

With the structural corrections, and the new painted border, the restored stained glass ceiling will provide enjoyment for many generations to come.



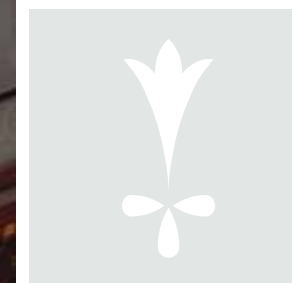
The Chapel Ceiling

The second phase of the art glass at Elstowe included the cleaning of all the 140 two toned etched glass panels in the original art gallery. There were also roughly seven pieces that had been replaced with a solid tone blast pattern, and one that was simply cracked and resting on a sheet of polycarbonate.

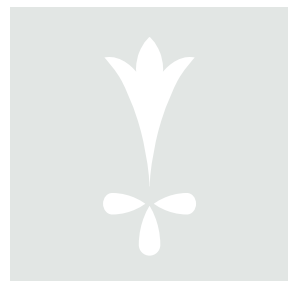
We decided to catalogue and lower the glass panels to the floor for cleaning. However, removing the glass panels was not without some difficulty. Each panel had been secured with small wooden blocks on the top edges of the glass.



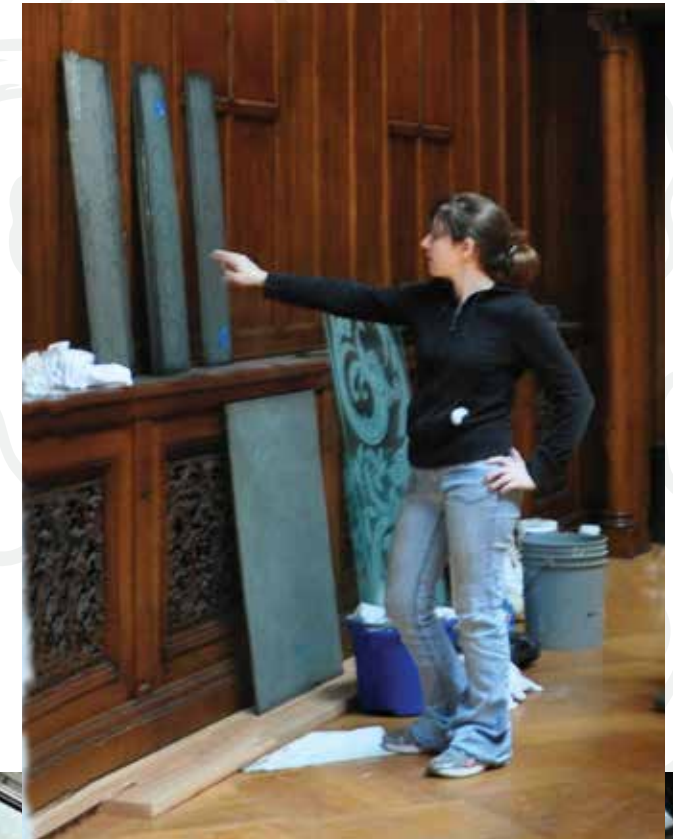
We were able to gain access through a corner panel and systematically remove all the necessary blocks and glass. Now we could set our sights on cleaning the glass as well as the replication of the damaged panels.



Selected panels were removed and carefully lowered to the floor for cleaning. Some of the panels were not removed and simply cleaned in place.



The removed panels were cleaned and organized for reinstallation.





The first step to replicating the glass panels was to make a tracing of an original panel with the same design.



The tracing was then transferred to a new acid washed blank panel that was covered with a 4 mm sandblast resist. We then used an exacto knife to cut out the design and remove the resist to expose the glass for sandblasting.



After the designs were completely cut out, they were sandblasted to achieve the new two tone design of the original panels. The combination of the acid washed glass and the sandblasted design provided the new two tone appearance.



All remaining sandblast resist was scraped off and the new panels emerged for installation in their new home.



All of the panels that had been lowered to the floor were then systematically returned to their original openings.



The wooden blocks were reinstalled around the edges of the glass.



The last panel was installed.

Now that the panels have been successfully returned, the ceiling glows with its original beauty.





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