Mrs. Gardner’s Tapestry Room: A Floor to Ceiling Conservation Project

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Abstract

Isabella Stewart Gardner opened her museum in Boston in 1903. In 1914-1915 she remodeled the museum, creating a 371.6 m² gallery to display Flemish tapestries. This Tapestry Room also functioned as a space for programming activities such as concerts and lectures. During the 1960s, a stage and audience seating occupied most of the room’s footprint, requiring all of the collection artifacts arranged by Gardner to be moved to the gallery’s perimeter. In response to increasing numbers of visitors and programming, the museum completed a new expansion project in 2012 to reduce wear on the historic spaces. This allowed for several key conservation projects to be carried out in the historic galleries, including a museum-wide lighting project and the restoration of the Tapestry Room gallery.

Keywords

Whole-room conservation, lighting, archival photographs, fireplace, tapestry

Introduction

In 1903 an unique museum opened in Boston, Massachusetts. The building, collection and installations were the artistic vision of one woman, Isabella Stewart Gardner (1840-1924) (Figure 1). Gardner created her Venetian-style palazzo, complete with authentic architectural elements and a flowering central courtyard enclosed by a glass ceiling, as the setting to display the art collection that she amassed beginning in the late nineteenth century. The museum’s collection includes over 2,500 paintings, sculptures, tapestries, furniture, manuscripts, rare books, and decorative arts from Europe, America, and Asia. Gardner’s installations are uniquely personal and are, physically,
quite accessible to the public. There are very few cases, vitrines, or stanchions throughout the museum separating the visitors from the works of art. This requires a delicate balance between providing accessibility as Gardner had intended while preserving the collection for future generations.

When Gardner opened her museum she intended it to be for ‘the education and enrichment of the public forever’, as written in her will [Gardner, 1921, 3]. Indeed the public continues to be enriched by the collection and unique installations. When the museum first opened, the yearly attendance rate was around 2,000 visitors. By the late 1990s, the attendance was closer to 200,000 visitors per year. This dramatic increase in visitors, along with modern programming demands, began to take its toll on both the collections and the building fabric. At that time, the museum administration began a planning phase for building a new wing in order to alleviate pressures on the historic museum.

After years of planning and design, the museum completed a major expansion project in early 2012 designed by the architect Renzo Piano (Figure 2). The new building has absorbed most of the programming activities from the historic building and provides spaces such as a flexible exhibition gallery, concert hall, art and education studios, as well as amenities, such as a café, gift shop and an orientation space. The new building also houses a purpose-built 325.2 m$^2$ state of the art conservation laboratory, loading dock and art storage facilities. In conjunction with the opening of the expansion, an eight year museum-wide lighting project was completed to improve the quality of light while also reducing light levels on sensitive works of art.

![Fig. 2. New building (left) and historic building (right).](image-url)
Lighting project

A designated lighting team that included an independent lighting designer and members of the museum staff worked to balance four project goals: maintain an appropriate atmosphere for the historic building; stay true to or return to Gardner’s intent for the use of light in the museum; protect the collection from excessive light levels and long-term exposure to light; and improve the visitor viewing experience. The working process for each gallery included an extensive survey of lighting conditions, careful review of design proposals, mock-ups of various lighting options and implementation of new systems. The successful result was a combination of new layered shades on all the gallery windows, the use of historically appropriate lighting fixtures and enhanced ambient lighting. The challenges faced during the project included finding appropriate solutions for unique galleries, installation of all new wiring and fixtures while the museum remained open to the public and satisfying the sometimes competing designated objectives. The solutions in each gallery varied from simple to complex; in some cases adding only one fixture to a gallery; in others a complete gallery de-installation for new wiring, installation of multiple fixtures and ceiling repair. Recognizing that, in the future, preferences for lighting in the galleries and standards for energy efficiency may change, many choices were made with reversibility in mind. As with other preservation projects, the team also learned that sometimes the best solution is simply to retain or replace what already exists. The museum will continue to evaluate the new lighting by conducting a second survey of the lighting conditions, and by making adjustments based on staff and visitor feedback.

The Tapestry Room

Architectural space

One of the primary preservation projects associated with the building expansion was a major conservation effort to return the Tapestry Room to its original function; a grand tapestry hall. When the museum first opened in 1903 the Tapestry Room, which is on the second floor along the east side of the building, did not exist. In its place was a two story Music Room that housed a stage for musical performances and audience seating. Four tapestries were displayed as backdrops along the rear of the stage. However, according to correspondence by Morris Carter, the museum’s first Director (1924-1955), Gardner decided to make sweeping changes to this space almost immediately after it was finished. In early 1914, the Music Room was dismantled and the two story space was divided with the Tapestry Room occupying the second floor and the Spanish Cloister, East Cloister, and the Chinese Loggia making up the first floor.

When the Tapestry Room was unveiled to the public in 1916, the predominant feature of the 371.6 m² gallery was tapestries from two Flemish story cycles that lined the walls of the room (Figure 3). Anchoring the south end of the room is a large medieval, carved limestone fireplace and above it, a panel painting of the Archangel Michael by Pere Garcia Benabarre (1470). The floor was covered in ceramic tiles made at Henry Chapman Mercer’s Moravian Pottery and Tiles Works in Doylestown, Pennsylvania, USA. Within the large room, Gardner arranged intimate groupings of tables, chairs and objects.

From 1903-1926, the photographer Thomas E. Marr documented the museum galleries and the changes that occurred in them. These archival photographs provide museum staff with a crucial record and serve as a reference point for documenting the original installations of the objects and galleries, and their condition at that time as well as any changes that occurred after Gardner’s death in 1924. Along with primary historical records and correspondence, the judicious use of archival photographs serve as an essential guide for individual conservation projects and whole room treatments that are undertaken by the conservation...
department in collaboration with the Curator of the Historic Collection. It is obvious from a review of these archival photographs that this gallery was a wide open space affording visitors ample room to view the tapestries.

For the past several decades, the Tapestry Room has functioned as an event space for musical performances and lectures. During the 1960s, the room was taken over by a semi-permanent performance stage, audio-visual equipment and 250 chairs that occupied much of the room’s footprint (Figure 4). All of the collection artifacts, previously arranged by Gardner, were moved to the perimeter of the room where they were largely unviewable. Visitors could walk along two side aisles to view the stanchioned-off artwork, but they could not approach the artifacts in the south end of the room, including the fireplace, because it was blocked by the stage.

With the new Calderwood Concert Hall as the museum’s venue for performances and lectures, the main goal of this project was to return the Tapestry Room as closely as possible to its appearance and function during Gardner’s lifetime. At the beginning of 2011, the stage, audio-visual equipment and chairs were removed from the space to make room for conservators and tradesmen to carry out work. The gallery became a large laboratory of sorts as all of the conservation work took place in situ. The Tapestry Room was not closed to the public during this work and visitors could walk along the west side of the room to observe the various treatment projects as they unfolded. In addition, there were signs placed at both ends of the gallery explaining the project to the public. The museum also hired a videographer to document the restoration project. The
footage was put on the Gardner Museum’s website to help educate the public about the need for, and the process of, the conservation work.

The Tapestry Room project encompassed over 45 conservation treatments including objects, textiles, upholstery, and one painting. The project also included the removal of failing and darkened polyurethane coatings on the ceramic floor tiles and upgrading the electrical system including new lighting fixtures. The project was staffed with one full-time objects project-conservator, four staff conservators (objects, textiles, and paintings) an historic upholsterer, and a part-time contract paintings conservator. There were also two part-time advanced conservation technicians and four pre-graduate program conservation interns at various stages of the project.

**Stone fireplace**

Many of the objects treated were furniture and ironwork and entailed basic stabilization, cleaning and waxing. A sixteenth century Italian polychrome and gilded wood sculpture of the *Madonna della Misericordia* required stabilization, cleaning and in-painting. The major treatment for the objects conservation department centered on the monumental polychrome limestone medieval fireplace including its stabilization, complicated cleaning and replacement of older fills. Gardner understood that this French fireplace came from a chateau of Francis I in Touraine. She purchased the fireplace in Paris from Bacri Frères in 1906 and placed it in storage until it was installed in 1914 in the newly designed Tapestry Room. The fireplace was a working fireplace during her lifetime and for several decades following her death. It displays a royal coat of arms in the center with a crowned shield bearing three *fleurs-de-lis* supported by two angels. The piece is distinguished by its
imaginative relief carving portraying figures of a jester, lion, dragon, unicorn, owl, as well as grape vines and floral motifs (Figure 5).

The stone surface was disfigured by a layer of soot and it was only after preliminary cleaning tests that conservators discovered there remained a fair amount of paint on the stone surface. This was a remarkable discovery as remnants of original paint from medieval architectural sculpture are rare. Fourier Transform Infrared spectroscopy (FTIR), Raman and scanning electron microscopy with energy dispersive x-ray spectroscopy (SEM-EDS) were used to analyze the pigment composition. Analysis was performed by conservation scientists at the Museum of Fine Arts Boston, and the results indicate that the pigment palette is appropriate to the age of the object and includes pigments such as azurite, vermilion, orpiment, and goethite [Derrick and Newman, 2011]. Based on the analytical results and the absence of any obvious paint restoration it appears that the paint is probably original to the object.

Surface cleaning was carried out with a variety of methods including saliva, triammonium citrate and laser cleaning in especially dirty areas (Figure 6). In addition to soot and grime there was also a gypsum crust present on top of the paint in parts of the fireplace, particularly the lower horizontal frieze that includes the grapevine motif. The crust was easily flaked off with a scalpel and separated cleanly at the interface of the original surface. In some areas the crust actually preserved areas of paint, but in many areas it also significantly obscured the detailed carving; unidentifiable rounded shapes along the vine were revealed to be articulated grape clusters.
Another condition to be addressed was damage to the stone resulting from exposure to water prior to being at the museum. Although the museum has been vigilant in maintaining water-proofing around this chimney, the roof above the Tapestry Room is flat and, inevitably, there have been water leaks. As a consequence there has been salt migration in the stone resulting in spalling and loss of stone in discrete areas, particularly the proper right vertical jamb. A silicate ester consolidant and stone strengthener product, Conservare® OH100, was brush applied to these areas. The treatment required the construction of a vented fume tent due to the health risks of this product. Two previous plaster fills along the bottom edge of the mantel were removed due to their lack of aesthetic compatibility. These were replaced with detachable WoodEpox® fills that were modeled in place over a Parafilm® M barrier, and then adhered with concentrated Paraloid™ B-72. The fills were toned to blend with the surrounding surfaces with Golden® Fluid Acrylic emulsion paints.

**Tapestries and textiles**

There are 13 Flemish tapestries dating from the sixteenth century on the walls of the Tapestry Room. A conservation assessment determined that eight of the tapestries were in need of a full conservation treatment. Due to their size and the time necessary to treat them, they will be treated at The Royal Manufacturers De Wit in Belgium as part of a separate IMLS grant-funded project. Meanwhile the textile conservation staff has rehung two tapestries to be consistent with Gardner’s original installations. Here again, the use of the archival photographs and conservation records helped the textile conservator and curator to determine the appropriate installations.
Many of the other textile conservation treatments in the gallery involved textile reproduction projects. Examples of these include: table coverings, hangings and furniture upholstery that over time had been removed to storage and replaced with inappropriate fabric, or were at risk of complete disintegration. In the late 1920s, director Morris Carter hired Ella Siple, the former curator of decorative arts at the Worcester Art Museum, to catalog the Gardner Museum’s textile collection. The descriptions of color palette, weave structure and pattern in Siple’s records are invaluable tools for selecting the most accurate reproduction fabrics [Siple, 1927-8]. Because it is difficult to find a new show fabric that meets all three of these criteria, the textile conservation department typically aims for a combination of two with the ultimate goal of finding a fabric that mimics the overall effect of the original. In the case of an upholstered Venetian armchair that had undergone several re-upholstery campaigns in its lifetime, the best reproduction fabric ended up being one that the textile conservator and historic upholsterer constructed themselves. In photographs of the armchair from 1926, a striped show fabric is visible, but the object was re-upholstered in the 1980s with a pale green fabric that had faded. Siple’s records describe the material as, ‘Pale blue satin and yellow moiré stripes about an inch wide. Ornamented with braid of the same color. Much worn and mended.’ [Siple, 1927-8]. A modern blue and yellow striped fabric matching the original could not be found and there was no budget to have an exact reproduction fabric manufactured. The textile department successfully constructed their own by sewing blue satin ribbon onto a yellow striped fabric. A reproduction trim was constructed by joining two trims and slightly modifying them to achieve the texture seen in archival photographs and the color description in Siple’s catalog entry.

**Painting**

The sole painting treated was the *Archangel Michael* by Pere Garcia Benabarre that dates from 1470 and hangs over the fireplace. The painting was originally part of an assembly of panels that formed a massive retable in a church in Lleida, Catalonia. The painting depicts the Archangel Michael sitting on a pale blue throne wearing gold studded armor. He simultaneously weighs souls who hope to gain entry into heaven and destroys Satan who is portrayed as a ghoulish two faced monster. The panel painting is composed of tempera, gold leaf and applied relief work. There were numerous paint losses and past restorations and, in many areas, the paint was abraded and very thin from previous cleanings. Many of the old restorations, including wax fills, had darkened considerably. The treatment included the removal of disfiguring restorations and uneven surface coatings, followed by application of a new, protective varnish and in-painting losses. Like the fireplace, the painting and frame had incurred some minor damage over the years due to leaks from the chimney. A protective piece of aluminum flashing was shaped, toned and attached to the top rear of the frame so that there was a slight projection over the front to prevent any future water leaks from damaging the painting or gilded frame.

**Floor tiles**

The removal of multiple layers of yellowed and darkened polyurethane coatings and black paint on the Mercer floor tiles may have had the greatest visual impact on the room. The coatings had worn unevenly over the years, creating a patchy look to the floor. After testing several options, 3M™ Safest Stripper™ Paint & Varnish Remover was identified as the safest and most effective product for removing the various layers. Once the protocol was established, the work was contracted out to a local painting company that the museum uses regularly for exhibition work (Figure 7). The Safest Stripper™ was applied to an area of the floor, covered with plastic sheeting to prevent evaporation, and after 8-12 hours it was scrubbed with a combination of stiff brushes and Scotch-Brite™ pads and then rinsed with water on sponges. In many areas, paint scrapers were used in combination with heat guns, particularly in the slightly concave grout lines where the coatings
had pooled. The floor tiles were re-coated with three applications of Benjamin Moore Stays Clear® Acrylic Polyurethane coating that was easy to apply and has a minimal environmental impact. The coating is largely considered a sacrificial layer to protect the tiles and can be reapplied when needed. The end result was stunning considering how much of the floor tiles are exposed now that the room is not occupied by the stage and audience seating. The floor work had to be coordinated so that conservation and electrical work could happen simultaneously. In addition, parts of the gallery were also being used for temporary storage of objects that normally reside in the room. At various times, temporary work and storage spaces had to be moved from one end of the room to the other as work progressed.

**Fig. 7. Contractors removing old coatings from floor tiles.**

**Conclusion**

The construction of a new building as part of the museum’s expansion project provided spaces for taking many auxiliary needs out of the historic museum structure, including the creation of a purpose-built concert hall. The new concert hall eliminated the need to use the Tapestry Room, the museum’s largest gallery, as a space to hold concerts and lectures and allowed conservation and other museum staff to return the Tapestry Room as accurately as possible to the appearance of Gardner’s original installation (Figure 8). In addition, the electrical wiring was fully upgraded and the gallery lighting was redesigned as part of a museum-wide lighting project. With the opening of the new wing and associated events, attendance has continued to rise over the course of this year and the response from visitors, members and staff has been enthusiastic. The conservation department has already begun to evaluate how the changes to the Tapestry Room, the new gallery lighting and the reduction of programming in the historic building is affecting – or not affecting – the collection. Planning is underway for the next full gallery restoration project, but thus far the Tapestry Room
has been the most comprehensive, including everything from floor to ceiling and many objects in between.

Fig. 8. After treatments and re-installation was completed.

Acknowledgments:

We would like to thank the following people and foundations: Oliver Tostmann, Gianfranco Pocobene, Tess Fredette, Ellen Davis, Gisele Haven, Alana Nelson, Kate Smith, Colleen O’Shea, Kendall Trotter, Olivia Bowser, Susannah Ford, David Kalan, Amanda Venezia, Shana McKenna, Richard Newman, Michele Derrick, Northern Lights Painting Company, Institute of Museum and Library Services, Massachusetts Cultural Council, and the Richard C. von Hess Foundation.

References:


Materials list:
Ammonium citrate dibasic (citric acid diammonium salt); Fisher Scientific, 1 Reagent Lane, Fair Lawn, NJ 07410, USA
Conservare® OH100 (ethyl silicate); PROSOCO, Inc., 3741 Greenway Circle, Lawrence, KS 66046, USA
WoodEpox® (two-part epoxy putty); ABATRON, Inc., 550195th Avenue, Kenosha, WI 53144, USA
Parafilm® M (stretchable plastic film composed of polyolefins and paraffin wax); Pechiney Plastic Packaging, 8770 W. Bryn Mawr Avenue, Chicago, IL 60631, USA
Paraloid™ B-72 (ethyl methacrylate and methyl acrylate copolymer); Rohm & Haas, subsidiary of The Dow Chemical Company, 455 Forest Street, Marlborough, MA 01752, USA

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