Conservation and re-creation of canvas ceiling panels at the Nickerson House

The same rule should be followed in the selection of carpets, coverings etc., or in the decoration of ceilings, and walls, in which harmonious contrasts are preferred to harmonious analogies, known as “matching.”

A. Fiedler and L. W. Murray, *Artistic Furnishing and House Decoration*, 1877

DRIEHAUS MUSEUM

Three of the formal reception rooms of the Nickerson House feature ceilings composed of painted canvas panels: the Library; the Front Parlor; and the Drawing Room. The panels, which are original to the house, are actually hand-painted canvases, exquisitely stenciled and stretched across wooden strainers. The ceiling panels were among the first elements of the house to be addressed in the restoration. Before any other work began within the historic rooms of the residence, the ceiling panels in each room needed to be carefully mapped, catalogued, and removed. In 2004, Parma Conservation, a Chicago-based firm that specializes in the conservation of paintings, frescoes, and murals, was engaged to develop a conservation plan to remove and treat the historic ceiling panels of the Nickerson House.

Front Parlor and Drawing Room ceiling panels condition assessment

The panels of the Front Parlor and the Drawing Room are stenciled to resemble delicately patterned fabric. Each room features a different arrangement of panels; the ceiling of the Front Parlor is composed of 32 canvas panels, while the Drawing Room features 127 panels. Overall, the panels in both rooms had survived in good condition. A century's worth of silt and airborne grime had accumulated over the surfaces of the panels, but the paint layer beneath, while dark and dirty, had in most cases remained intact. The canvases were still in tension, and the stretchers were in excellent condition.

However, a number of the original panels were in poor condition. In both rooms water infiltration had caused the paint of certain panels to tent, curl, and lift up along the lines of craquelure. The paint was extremely brittle with deeply pronounced traction cracking. In several cases water damage had decimated the surface of the panels causing severe paint loss. In the Drawing Room, two panels had suffered a complete loss of paint, while eight panels were missing altogether.

Conservation and restoration

To mitigate the risk of further paint loss in the more fragile of the panels, it was important to stabilize them before removing them for treatment. Wet-strength Japanese tissue and Beva 371 (a reversible water-based adhesive) were used to face the surface of panels that would have been too delicate to move to the Parma Conservation laboratory.

Upon removal to the laboratory, the panels with the most severely weakened paint layers required consolidation to re-adhere the damaged layers. Consolidation is a conservation treatment whereby flaking, tented, or insecure paint layers are re-adhered to the substrate canvas. The goal of the consolidation treatment was to save every extant chip of paint in each of the panels. With the Japanese tissue facing still in place, the canvases were removed from their stretchers. Dilute Beva 371 resin was fed to the verso of each panel. The panels were then placed in a moisture vapor climate envelope overnight. Consolidation of each canvas panel was facilitated with low vacuum pressure and heat, rendering the surface plane smooth and flat once again.

After consolidation, all panels were cleaned with a water-based cleaning gel emulsified with a small amount of aromatic hydrocarbon. This method proved effective for removing both surface grime and excess consolidant that had wicked through the cracked paint surface during the consolidation process. A filling material called Gesso di Bologna

was used to compensate for any areas of lost paint. The gesso was sanded to match the level and gradations of the original paint layer before being inpainted to match the surrounding design.

For panels that had suffered extreme paint loss, the stencil design from a matching panel had to be traced and reproduced. The panels were prepared with anhydrous gypsum and hide glue gesso and sanded to a smooth texture. The color scheme was painted with Winsor and Newton watercolors and finished with Gamblin Conservation colors. All of the panels were varnished with Regalrez 1099 picture varnish.

The Library ceiling panels condition assessment

The Nickerson Library ceiling features 76 stenciled canvas panels elaborately decorated with an eclectic fusion of artistic motifs derived from natural forms and historical patterns. The ceiling is made up of 4 different panel types: 8 large square panels, 12 rectangular panels, 24 small square panels, and 32 L-shaped panels. The panels had been successively over-painted by later owners of the house. At the commencement of the restoration project in 2003 the original stenciled design of the Library ceiling was completely obscured by layers of asphaltum, oil paint, and casein.

Analysis of the panels revealed that the original stenciled design was a water-soluble tempera. The over-paint had two distinct layers; the top layer was an oil-based medium while the second layer was casein. Casein is made from dairy milk solids that are slowly heated and combined with an alkali. Upon drying, the medium is hard, brittle, and generally insoluble. While the oil layer could be removed relatively easily with hydrocarbon gel, the casein was a particularly problematic medium to remove. Because the original stencil designs were painted in tempera, a weaker medium than casein, removing the casein over-paint without damaging the artwork beneath promised to be a very difficult task.

A water-based solvent formula was chosen to remove the casein over-paint from the ceiling panels. EDTA, a chelator specific to calcium, was thickened with inert methyl cellulose to form a gel. The pH of the solution was buffered to pH 9.8 (alkaline). The gelled solution was then applied to the surface of the canvas.

The casein layer was almost 1/16″ thick. In order to remove it several applications of gel were required over the course of several days. The original tempera beneath the casein was extremely fragile and water-sensitive. Due to the watersensitive nature of the tempera it proved impossible to remove all of the casein using the water-based solvent. The remaining casein had to be manually removed with scalpels.

While the process outlined above made it possible to recuperate the underlying stenciled artwork, the labor-intensive nature of the work made it cost prohibitive to carry out on all 76 of the Library ceiling panels. Parma Conservation determined that the most viable option was to reproduce the panels.

In order to do this, one of each of the panel designs was completely conserved. High resolution digital scans were then made of each design. Dr. M. Kirby Talley, Director of the Nickerson Restoration, worked in conjunction with Harry Terrazas, Senior Retoucher of Gamma Photo Lab of Chicago, to enhance the original stenciled designs and adjust the final color palette for all of the panels. The scans were then printed with archival quality inks on canvas. Finally the new canvases were stretched over the original frames and reinstalled at the Nickerson House.

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Conclusion

The reinstallation of the ceiling panels was one of the last tasks to be completed as part of the restoration of the Nickerson House. In 2008, nearly four years after Parma Conservation had overseen the removal of the panels, the conserved panels of the Front Parlor and the Drawing Room, and the replicated panels of the Library, were finally brought back to the site and reinstalled.

The reinstallation of the panels was the crowning touch to the newly restored interiors of the formal reception rooms of the Nickerson House. The ceiling panels are an integral part of the interiors and survive as prime examples of the consummate skill and artistry of the original decorators and craftsmen that created the residence. The conservation and re-creation of the panels at the hands of the skilled conservators of Parma Conservation allow the rooms to be seen as their original creators intended.