

# QUALIFIED Remodeler

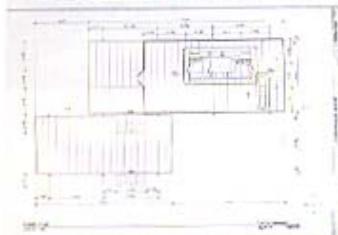
BEST PRACTICES, PRODUCTS & DESIGN IDEAS

MASTER DESIGN SOLUTIONS

## Restoring an Icon of the International Style

The preservation of a 60-year-old icon of modernism offers insight into the process and meticulousness of a true historic restoration

By Patrick O'Toole



Building on a flood plain is not without its perils. Mies' relied upon 500-year flood figures in his decision to elevate the building 5 ft, 3 in. from the ground. It has been topped three times since 1951, so permanent mitigation efforts are being considered. A basic floorplan reveals Mies' famous "less is more" aesthetic.

Three years before the Farnsworth House was built, its drawings and a model were the centerpiece of an exhibition at the Museum of Modern Art in New York. On display at MoMA in 1947, the model inspired a then youthful architect, Philip Johnson, to design and build his now famous "glass house" in Connecticut. But the Farnsworth House, intended as a weekend retreat for a Chicago internist, Dr. Edith Farnsworth, was and is the genuine article — a seminal work of architecture designed (and built) by a towering figure of 20th century architecture, Ludwig Mies van der Rohe.

Now a museum, it is owned by the National Trust for Historic Preservation and managed by the Landmarks Preservation Council of Illinois, which took control of the building in a Sotheby's auction in

2003 for \$7.5 million. In the custody of true preservationists, every piece of the building — which is so simple looking as to leave an observer wondering how difficult it would be to preserve a structure that is mostly glass, steel and marble — has been analyzed with an eye toward building a long-term schedule of restoration and preservation.

Whitney French, who manages the site for the Landmarks Preservation Council, says the schedule includes a complete rebuilding of the distinctive overhanging marble decks, which are composed of several layers of gravel and porous vermiculite sandwiched between the tiles and a frame of precast concrete and steel. At issue, drains located underneath the outdoor decks have long since corroded and have become clogged. Basically, the decks need to be taken apart and rebuilt.

Other parts and systems of the home are also slated for various grant funded projects. A flat roof, which Mies designed, drained to the middle and down through the center core of the house. A reroofing during the 1970s increased the grade toward the center so as to evacuate the water more quickly. Now preservation experts are at odds over which roof to replace. A new roof is clearly needed, but two camps of preservationists face a choice — leave the current leak-free solution in place or return to the design of the master, which was also leak-free but worrisome to many because the grade is likely not enough to handle a true Midwestern gully weather.

"One camp feels that every part of the original should be restored, including the roof, which is not part of the visual experience," notes French. "The other school of thought is to keep the current type of roofing solution in place, even though it is not the original design, because it is doing a good job of protecting the rest of the structure."

"These are the types of debates that the preservation community has when it makes decisions about Farnsworth House and other important buildings," French explains.

Among a number of other long-term projects that are also slated for action is to reduce pressure on some parts of the glass walls. Parts of the distinctive steel framework are





Eight steel piers arranged in three adjacent squares support the main building. A brass screen, now removed, once enclosed the upper porch to thwart insects.

#### FAST FACTS ABOUT THE FARNSWORTH HOUSE:

- **Location:** Plano, Ill.
- **Originally built:** 1951
- **Architect and builder:** Ludwig Mies van der Rohe
- **Owner:** The National Trust for Historic Places, managed by the Landmarks Preservation Council of Illinois
- **Conditioned sq. ft.:** 1,500
- **Current restoration estimate:** \$500,000 to \$600,000

pushing on two of the mammoth floor-to-ceiling panes of glass. The pressure is coming from steel mullions that have warped as a result of condensation. This project will require new custom-made mullions built to original specifications. Then there is the more routine care for the gleaming white steel frame. Every so often, the steel frame must be sandblasted. Then workers must apply the same three layers of coatings and finish paints as those used in 1950.

Inside, there is considerable debate about preservation of the primavera-veneered "core" of the living space. Parts of the wood veneers that cover

the kitchen, living room and bedroom areas of the home have suffered water damage from past floods. The quandary for preservationists is that replacing two slightly warped bathroom doors at either end of the core would reveal differences in the shading of the wood that comes only with age. New veneer doors would have a slightly lighter color than the rest of the core, thus diminishing the visual effect of the pure slab of wood color intended by Mies.

An interesting side note regarding this core (as the center functional structure is often called) is that some of the building products came from companies that are still in business today. While it is one that most of the original wood work was constructed by a local craftsman, Carl Friend, the kitchen cabinets were cus-

tom-made by St. Charles Cablavery, which is now owned by Viking Corp. Additionally, a huge 17-ft. stainless steel countertop with basin was constructed by Ellyop Mfg. Co., complete with spots for cooktop burners to come through. Both of these items are original to the house and do not require any restoration work.

#### The flood of 2008

All ongoing preservation schedules were literally washed away in September 2008, when the adjacent Fox River rose above the 5-ft., 3-in.-high steel stilts upon which the home sits. It was the third time that a flood had washed over its main level since it was built. In 1956, the home was overrun by several inches of water. In 1996 a devastating flood saw water from the river rise to over 4 ft. inside

the home. This time it was only several inches over the main floor, but enough to do considerable damage. Repair and restoration costs related purely to the latest incident will be \$500,000 and \$600,000 to properly restore, says French.

Because of the long timelines involved in grant requests and subsequently issuing requests for proposals (RFPs) from a specialized group of architects and contractors and then fielding their responses, the restoration



Intended as a retreat to practice violin and to write poetry, the house's main living space offered the perfect setting for both pursuits.

work from the flood of 2008 will not begin in earnest until later this spring.

French is hoping that the estimated damage amounts, most of which will be covered by insurance, will be enough to cover the actual expenses. As an example, French mentioned the estimates of replacing the drywall located inside the cramped mechanical room. Because of the tightness of the space, all of the mechanical equipment must be removed before the drywall can be replaced. One estimate for this job alone is \$40,000.

There is always a concern, says French, whether the amounts will be enough to attract the interest of the cadre of architect/builder preservationists who are at the top of the preservation field. The hours of research

required can be very high. Among this group is Harboe Architects of Chicago led by Garry Harboe, AIA. Firms also mentioned by French include Harry Hundeman of Wiss, Janney and Elstner Associates, Mark Sexton or even Al Novickas, who, along with Mies' grandson Dirk Lohan, have been intimately involved in the preservation efforts of the house to date. To this small group of preservation specialists each decision, however minor, is worthy of analysis and discussion.

Going back to the question of replacing several panes of glass, there is a palpable pang at the loss of some of the original panes. The originals were made of plate glass that had been hand ground to a perfectly

reflective state, says French. The pros can spot the safer but less reflective and more widely available tempered glass that was used to replace panes that were damaged in the '96 flood. Indeed, an inventory of the original glass had been underway when last September's flood put this effort on the back burner.

So much effort is put into each preservation decision because often-times well-intended preservation efforts result in greater, lasting damage, says French. After the 1996 flood, parts of the Primavera-veneered wood core were covered with a marine grade sealant. This sealant, says French, held up well during the first 24 hours of the '08 flood but failed after that, when water began to penetrate the wood. The parts of the core that had not been treated with the marine-grade coating actually fared better and dried faster and resumed their normal shape. The failed coating kept parts of the wood wet longer, creating conditions for mold which has now damaged the bathroom doors.

Looking ahead, the National Trust and the Landmarks Preservation Council are looking at river remediation efforts that will stem future floods and stop a cycle that has increasingly damaged this important architectural icon. That long-term solution is years away says French but until then the work goes on using a combination of public and private funds. Last fall, just two weeks before the flood hit, the group earned \$60,000 by allowing a Japanese blue jeans company to use the house as a backdrop for a commercial featuring actor Brad Pitt. The house was also used as a stage for a music video shot for country music star Kenny Chesney. Through these uses of the house, it becomes more of icon in the public and therefore achieves a star quality of its own. And if that is what it takes to keep this building in good shape on its original site, the preservationists are fine with that. | QR

## THE SIGNIFICANCE OF THE FARNSWORTH HOUSE

The inception of the home grew out of a 1945 dinner party conversation between Ludwig Mies van der Rohe and Edith Farnsworth. Designed in 1946, it was completed in 1951 on 62 idyllic acres along the Fox River in Plano, Ill. The home is, in many ways, a culmination of the International Style that the German-born Mies had come to represent. The roots of the International Style date back to homes designed by Mies as early as 1912, but really took shape with a group of architects associated with the German Bauhaus school Mies ran in the 1930s before it was closed by the Nazi regime. Roughly put, the goal of Mies and others was to strip out all nonessential ornamentation and yet to retain classic forms.

The original owner, Edith Farnsworth, had a brass screen porch built around the upper deck of the house to keep the mesquites at bay. Not designed by Mies, it was later removed by the home's second owner, Lord Palumbo, a British real estate magnate who purchased it in 1971 and used it and its grounds as a place to house an extensive collection of sculpture. By the end of 2002, after 30 years of caring for the building from long distance, Palumbo embarked upon a course to sell the home to preservation groups. When funds did not immediately materialize, Palumbo put it up for auction at Sotheby's in December 2003. In an auction with only a few bidders, one wanted to disassemble the house and move it to another Midwestern location; the home was sold to a group of local preservationists for well above its asking price. The funds came from about 350 private donors who then deeded the property to the National Trust for Historic Preservation.

The home is open to the public beginning April 1 each year and closes in December. For information about visiting Farnsworth House, go to [www.farnsworthhouse.org](http://www.farnsworthhouse.org).

### SPECIFIED PRODUCTS

**Decks:** Steel frames, precast concrete, stone aggregate topped by Travertine marble tiles

**Flooring:** Precast concrete with electric radiant flooring topped by Travertine marble tiles

**Framing:** Steel and plate glass

**Internal walls/core:** Custom milled Primavera wood veneer fireplace surround, bedroom walls, doors

**Bathroom fixtures:** Robinson

**Kitchen cabinets:** St. Charles Cabinetry

**Countertops:** Custom-made, 12-ft. section of stainless steel made by Dikay Mfg. Co.