

# Restoring Wilshire Boulevard Temple



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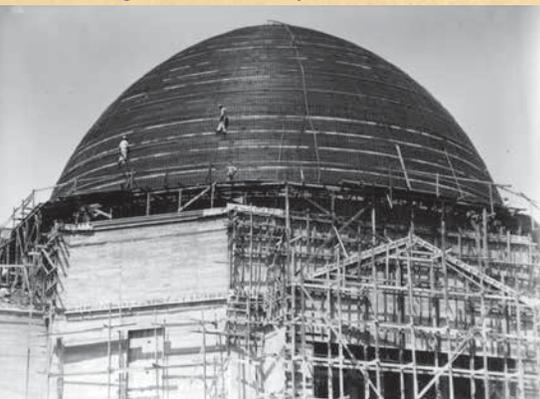
# Wilshire Boulevard Temple: Storied Past, Bright Future

Understanding the restoration of Wilshire Boulevard Temple illustrates how a highly skilled restoration team comes together and conducts the physical act of historic preservation. It also tells the story of a group of people who cared enough about history and tradition to do the work and raise the funds to preserve it. And the restoration promises a future for the campus as a resource not only for congregants but for the surrounding community.

Wilshire Boulevard Temple serves as the third home of the Congregation B'nai B'rith, which was founded in 1862 and is the oldest Jewish congregation in Los Angeles. The congregation left each of its first two synagogues, both located downtown and both now demolished, as its size grew and as the city moved westward.

2 Under the dynamic leadership of Rabbi Edgar F. Magnin, often called the “Rabbi to the Stars” because of his friends in Hollywood, the congregation purchased property at the corner of Wilshire and Hobart Boulevards in 1921. At the time, the Mid-Wilshire area was an upper-class suburban enclave with great commercial promise, sometimes called the “Fifth Avenue of the West.” Religious organizations of many denominations built grand and impressive churches here, following their members as they moved west from downtown.

**Workers are seen on the dome of the Wilshire Boulevard Temple during its construction, 1928.** Photo courtesy of Los Angeles Public Library Photo Collection.

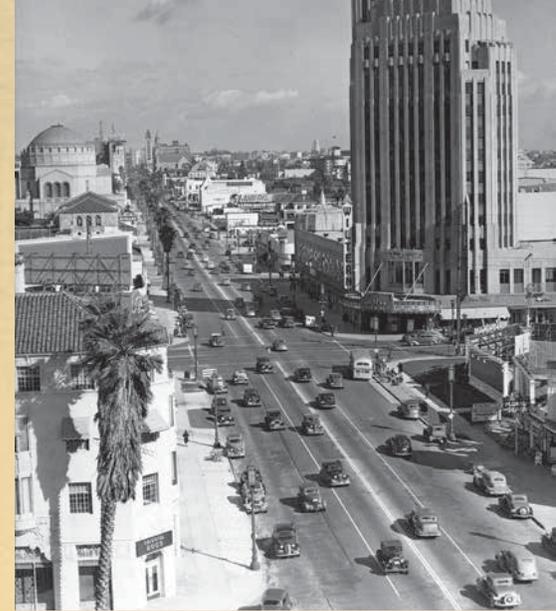


Wilshire Boulevard Temple was no exception. Dedicated in 1929 and built for a then-princely sum of \$1.4 million, the octagonal building was designed by A. M. Edelman, with Allison & Allison as consulting architects, and S. Tilden Norton as honorary consultant. Its Wilshire façade combines a traditional Romanesque three-arch portal and rose window with a vast Byzantine-style dome.

The spectacular interior of the sanctuary is resplendent with black and gold Belgian marble columns, walnut paneling, marble marquetry, bronze Ark doors, and bronze chandeliers. As a gift to the synagogue, the Warner brothers, founders of the famous Hollywood studio, commissioned artist Hugo Ballin to design breathtaking murals depicting 3,000 years of Jewish history.

The Warners were not the only Hollywood connection to the Temple. Many prominent Jewish filmmakers who had found success in Southern California’s movie business had strong relationships with Rabbi Magnin—and, thus, the Temple. Hollywood legends including Sid Grauman, Carl Laemmle, Sol Lesser, Louis B. Mayer, and Irving Thalberg donated funds for features such as stained-glass windows, chandeliers, and marble columns.

**Exterior view, 1932.** Photo courtesy of Los Angeles Public Library Photo Collection.



**View of Wilshire Boulevard, looking east toward Western Avenue with the Wilshire Theatre on the right side and the domed Wilshire Boulevard Temple on the left in the background, circa 1930s.** Photo courtesy of Los Angeles Public Library Photo Collection.

In accordance with Rabbi Magnin’s wishes, the sanctuary was designed with some elements similar to a movie theatre. It featured a grand entrance and spacious lobby; broad, carpeted stairways leading to the balcony; a dramatically domed and acoustically perfect auditorium with no central aisle; and a raked floor. The Temple proved to be such a source of identity that in 1937, the congregation officially changed its name from B’nai B’rith to Wilshire Boulevard Temple.

Despite the building’s designation as a Los Angeles Historic-Cultural Monument in 1973 and listing in the National Register of Historic Places in 1981, its golden age passed. By the



**Prior to restoration, decorative plaster in the sanctuary was covered in a powdery efflorescence due to water and humidity damage.** Photo courtesy of Simpson Gumpertz & Heger.

early 1990s, many congregants had moved west to other parts of the city, and the structure suffered from deferred maintenance. The stunning Ballin murals were in need of conservation, plaster from the dome ceiling had fallen due to water damage, art glass windows were bowed, and nearly every surface was dingy and dirty.

Temple leaders faced a difficult decision: sell the building and focus on their Westside facilities, or find the money to invest in its future. In 2004, the Temple's Board of Trustees made restoring the building a priority. The Jewish community responded in force, not only funding the restoration but continuing to raise money to expand the entire campus.

The original building's restoration and renovation spanned two years, from September 2011 to September 2013. It cost \$47.5 million and required many specialists.

**Each octagonal coffer on the dome was covered with over 80 years of built-up dirt and had to be carefully hand-vacuumed.** Photo courtesy of Wilshire Boulevard Temple.



This booklet highlights the primary elements of the Conservation Master Plan, which focused on the most significant threats to the sanctuary and building, including the coffered dome ceiling, the stained-glass rose window and its surrounding cast stone, the west tripartite art glass

windows, and the Hugo Ballin murals.

Infrastructure improvements were also needed to make the building safer, more accessible, and more comfortable. The restoration team undertook seismic upgrades; the installation of an HVAC system; acoustic, audio visual, and lighting enhancements; improved accessibility and sanctuary seating; and new and restored restroom facilities.

The enormity of this project cannot be overstated. According to Brenda A. Levin, FAIA, principal of Levin & Associates Architects and lead project architect, every element of the building required work.

The project was made possible by a massive fundraising effort by Temple leadership, under Executive Director Howard Kaplan and Senior Rabbi Steven Z. Leder, and the support of the 2,400 families in the Temple's congregation. To date, the congregation has raised more than \$120 million toward the expected

budget of \$150 million for the entire campus expansion.

In July 2014, the Temple will break ground on a new structure to provide the neighboring community with an expanded food pantry and a variety of social services. The new building will also contain rooftop athletic facilities for Temple and community use, as well as parking. This next phase of construction will also include the renovation of two school buildings and landscaped areas throughout the campus.

This vision for Wilshire Boulevard Temple makes it not only a symbol of religious vitality for Jews, but an important resource for its surrounding neighborhood, which is predominantly Korean and Latino. While there is still money to raise and work to do, the first phase of the campus renovation symbolizes hope and optimism for the congregation and the larger community—and stands as a testament to the power of preservation.

"When a community comes together to restore a historic structure, they forevermore approach it with a far deeper sense of gratitude and respect," said Rabbi Leder. "And I thought to myself, 'If we go down as the generation that helped Jews in Los Angeles approach the synagogue with a deeper sense of gratitude and respect, I'll die a very fulfilled man.'"

**After the restoration was complete, the congregation attended services in the colorful and bright sanctuary.** Photo courtesy of Tom Bonner Photography.





**Scaffold platforms enabled the restoration team to work high above the sanctuary floor.** Photo courtesy of Levin & Associates Architects.

## Restoration of the Dome

What seems like one dome is actually two. An outer circular dome of steel and concrete spans 135 feet in diameter. Suspended inside this outer dome is an octagonal inner dome, 100 feet in diameter, covered in coffered plaster

octagons and soaring 110 feet above the sanctuary floor. The inner dome had deteriorated from water damage and high humidity, which caused efflorescence (a powdery substance) to form on some of the plaster, crack, and even break off in some places. The octagonal coffers were also covered in layers of brown dirt, dimming the original colors and decorative shapes. The gilded plaster throughout the sanctuary had oxidized, turning its original gold leaf into a brown color.

The restoration team built two enormous scaffold platforms, one rising fifty feet and the other a hundred feet. Every coffer was vacuumed, loose areas were stabilized, and new plaster castings were made to replace deteriorated or lost pieces. Historic documentation allowed the architects to replicate the original paint, glaze, and gold-leaf colors. The prayer inscribed in gold around the oculus at the apex of the dome is once again vibrant: Sh'ma Yisrael, Adonai Eloheinu, Adonai Echad ("Hear O Israel, the Lord Our God, the Lord Is One").

**Careful restoration allowed the bright colors and gold leafing around the oculus to once again be vibrant.** Left and middle photos courtesy of MATT Construction. Right photo courtesy of Tom Bonner Photography.



4

## Upgrading the Sanctuary

The Romanesque-style sanctuary is massive, with 10,000 square feet of floor space and seating capacity of nearly 1,700 including the main floor and balcony. The sheer size of the space meant that it had historically been impossible to heat or cool effectively. The 1920s ventilation system blew air over blocks of ice into a chamber below the sloping floor, and then upward through vents under the pews. This noisy, ineffective system had long been abandoned. Congregants had endured decades of discomfort, with the sanctuary being either too hot or too cold. The renovation rectified this problem at last with a new HVAC system in the basement, carefully designed with extensive acoustic dampening measures.

**Members of the restoration team removed the eight Spice Box Chandeliers to clean and repair them before rehanging.**

Left photo courtesy of Levin & Associates Architects.

Right photo courtesy of Tom Bonner Photography.



Eight chandeliers hang from the ceiling of the sanctuary. They are known as the Spice Box Chandeliers because they were patterned after the spice boxes used in the Havdalah service that ends the Sabbath. To restore them, the project team lowered each one from the ceiling using a winch. New LED lights were added to the base ring to illuminate the beads and chain. To augment

their beautiful yet insufficient light, eight new light niches with theatrical lighting were added to the sanctuary walls, each concealed by a gold metal grille.

One of the most visible changes in the sanctuary was the redesign of the bimah, the raised platform from which the Torah is read. The bimah was lowered and ramps were added on either end to make it universally accessible to congregants. The pews were also repaired, and new carpeting and upholstery were installed.

## Seismic Retrofit of Sanctuary Walls

One of the most challenging aspects of the restoration was seismically retrofitting the sanctuary without changing its appearance. Even though previous seismic surveys had confirmed that the concrete dome had survived previous earthquakes with virtually no structural damage, computer modeling indicated the potential failure of the sanctuary's four diagonal walls.

The solution was to insert shear walls, designed to resist the lateral force of an earthquake, within the existing walls. This invisible approach would strengthen the building without affecting its historic features. However, nearly every surface in the sanctuary is covered in historic decoration. The project team chose for the point of entry the corridor walls that were the least embellished, and where the historic fabric could most easily be removed and replaced or, if necessary, recreated.

New footings were dug ten feet below the basement. A matrix of steel filled with shotcrete (concrete shot through a hose at a high velocity onto a surface) was built from the basement to the top of the dome, a height equivalent to five stories. After the shear walls were installed, the corridor plaster walls were replaced and refinished to match the

original surfaces, including recreating some of the Zenitherm finish that resembles green mortared stone. Zenitherm is a composite material made to look like stone but cut like wood; it was often used for decorative



**A member of the restoration team sprayed concrete through a hose at high velocity onto new shear walls as part of the seismic retrofit of the sanctuary.** Photo courtesy of Wilshire Boulevard Temple.

ornamentation in the 1920s and 1930s.

In the east and west niches of the sanctuary, the pilasters between the tripartite glass windows were opened up and steel "tees" were welded to the flanges on the existing steel. Finally, a lightweight layer of carbon fiber designed to transfer seismic loading was added to the lower part of the roof and up the exterior walls of the sanctuary encompassing the dome.

**Sections of the green Zenitherm tiles that lined the hallways were removed as part of the seismic retrofit and had to be recreated and installed.**

Photo courtesy of Levin & Associates Architects.



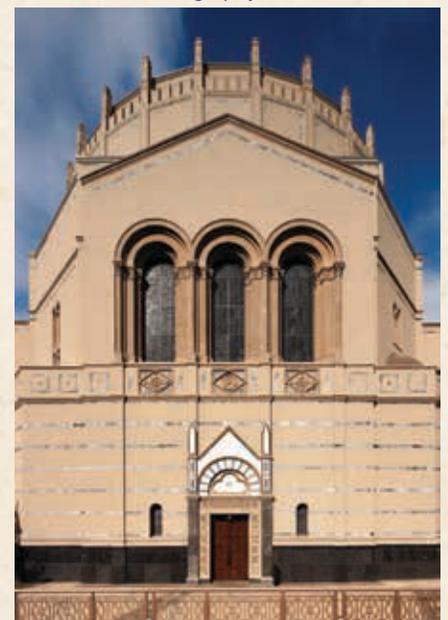
**To repair exterior damage, scaffolding was erected all around the Temple and the parking lot was dug up to allow access to the basement to install the new HVAC system.** Photo courtesy of Levin & Associates Architects.

## Exterior Repair and New Landscaping

The exterior of the original building was stripped of its yellowing paint, exposing cracks and chips that had to be repaired before a new coating could be applied. The black Belgian marble bands that wrapped the base of the building had turned gray due to calcification. Unfortunately beyond repair, the marble was replaced with Virginia Mist granite, which has a color similar to the original dark black.

A new communal outdoor garden space was designed as a gathering place for the congregation. Previously, the parking lot nearly touched the east wall of the sanctuary; the new lot was pulled back, creating space for a beautiful garden courtyard.

**New landscaping created a beautiful garden and courtyard.** Photo courtesy of Tom Bonner Photography.



## Restoration of the Stained-Glass Tripartite and Rose Windows

Spanning twenty-five feet in diameter, the sanctuary's rose window was designed in the Gothic tradition by Oliver Smith Studios in Pennsylvania. It depicts a Torah scroll and Star of David in the center and symbols of the Twelve Tribes of Israel in the outer circle. Ornamented cast stone encircles each stained-glass ring and divides the whole piece into twenty-five panels.

The west tripartite (three-part) window, also designed by Oliver Smith Studios, is composed of 4,000 to 5,000 pieces of glass attached with lead.

The windows were some of the most vulnerable elements of the building. Eighty years of deterioration led to the loosening, cracking, and bowing of glass and stone, which had the potentially great risk of falling. Proper restoration of the rose window and west tripartite windows required that they be totally dismantled and the art glass removed.

6

Working from a thirty-five-foot scaffold, conservators carefully removed the panels and transported them to their studios. The panels were documented, cleaned, and re-leaded before re-installation. When replacement of glass was required, new glass was selected to match the original.

The cast stone surrounding the windows had to be cut apart

and removed in sections. Each of the 125 cast-stone elements weighed an average of about 200 pounds. Each piece was cleaned, catalogued, and



**Members of the restoration team examined pieces of the stone casting that surrounded the Rose Window after it was removed for repair.** Photo courtesy of Levin & Associates Architects.

patched. A structural reinforcement plan required that sections of stone be cut and grooved, so that a continuous stainless steel ring could be placed in both the outer and inner circle of cast stone. The two circles of cast stone, connected by stone spokes, were reinforced by drilling stainless steel dowels through the spokes.

According to the project team, to their knowledge this is the first time in the United States that this repair methodology has been executed.



**Above: The restored west tripartite window.** Photo courtesy of Tom Bonner Photography. **Below: Sections of the windows were carefully removed, inventoried, documented, cleaned, and repaired.** Left photo courtesy of Judson Studios. Right photo courtesy of Levin & Associates Architects.



**It took two 18-wheeler trucks to ship over 4,000 organ pipes and the console to Ohio for restoration.** Photo courtesy of Tom Bonner Photography.

## Restoration of the Pipe Organ

The Temple's original organ, located above the bimah in an enclosed grille, is one of the best examples produced by the Kimball Company. Installed in 1929, the organ has 4,102 pipes enclosed in five soundproof rooms. It still retains all of its original parts.

The organ was completely refurbished by the Shantz Organ Company in Ohio. All the pipes and the console were shipped to Ohio, where they were cleaned and restored. The parts were shipped back over the summer of 2013 and reinstalled by a team of technicians from Shantz over a period of four weeks.

**The organ was played for the first time after restoration on the eve of Rosh Hashanah, September 4, 2013.** Photo courtesy of Tom Bonner Photography.



## Restoration of Hugo Ballin's Warner Murals

The murals in the sanctuary are truly unique. Traditionally, synagogues do not feature depictions of human images as part of a rigid interpretation of the Second Commandment, which prohibits displaying “graven images.” However, this Temple, one of the first Reform synagogues in the country, was influenced by motion pictures and visual images. Indeed, the murals were funded by Jack, Harry, and Abe Warner, founders of the legendary film studio. They were painted by Hugo Ballin, an early Hollywood art director and renowned muralist. Ballin said, “The purpose of mural embellishment is to stimulate the imagination and to arouse interest and respect in the beholder.”

The murals consist of fifteen separate panes and three lunettes. The largest lunette, measuring eighteen by thirty-six feet, was the largest size that fit in Ballin's home studio in the



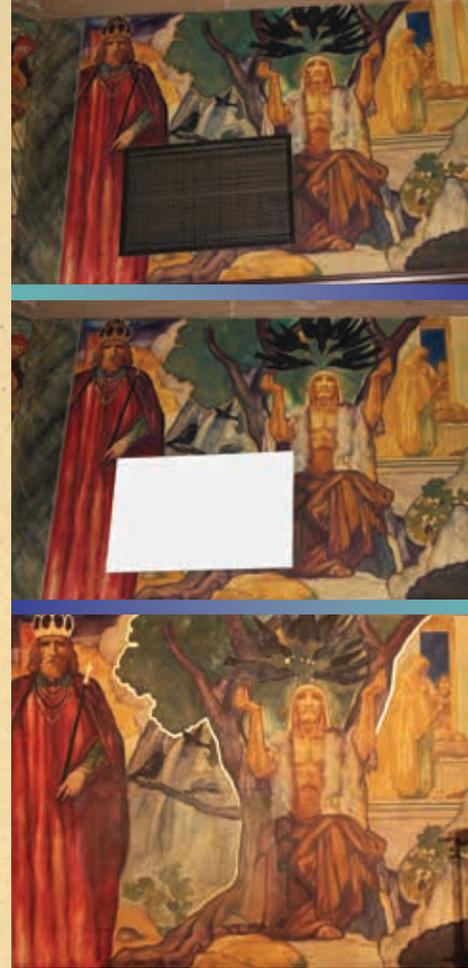
Pacific Palisades. He painted all the murals in his studio in oil on canvas, and then they were transported to the Temple and affixed to the walls. They tell the story of Jewish people from the time of Abraham to the European exodus to America, as well as represent important Jewish figures, scriptural events, and holidays.

Over the years, the murals' existing varnish aged and turned grayish-black or yellow dimming the vibrant colors. The paint was cracking into thin layers, and many of the panels were detached at the edges.

Conservators cleaned the surfaces with distilled water to remove dirt and salts. They repaired the canvas, reapplied and stabilized peeling gold and silver leaf, and coated the murals with a varnish that will allow future conservators to differentiate between the 2013 repairs and the original 1929 painting.

One of the most interesting elements of the mural conservation was the infill of rectangular gaps left by old ventilation grilles. Once the grilles were removed and filled over by canvas matching the original thread count and color, the conservators had to “fill in the blanks.” They extrapolated from the surrounding images on the murals and painted the infill to match the original work.

**Conservators worked carefully to reattach lifting sections, repair cracks, and clean away dirt.** Top photo courtesy of MATT Construction. Bottom photo courtesy of Tom Bonner Photography.



**When old ventilation grilles were removed, conservators filled in sections of the mural to complement the original.** Photos courtesy of Levin & Associates Architects.

7

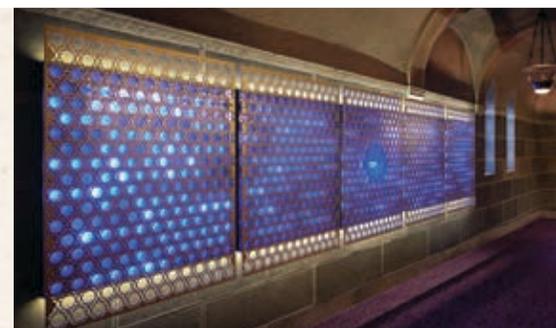
## Lita Albuquerque's Memorial Wall

The Temple's grand tradition of high art in a synagogue began with the Ballin murals and continues today. With the renovation, Temple leaders saw the opportunity for a modern integration of art and religion. The Temple's first new art commission since 1929 is Lita Albuquerque's *Memorial Wall*, located at the back of the sanctuary and spanning the ambulatory (a covered passage). The two-part wall contains ten electronic panels filled with 1,800 blue spheres, each one a memorial to a deceased loved one.

As part of the Jewish ritual of remembering the deceased on the anniversary of their death, the panels are programmed to illuminate a blue sphere during the anniversary week of a person's passing. Each sphere first appears in a bright blue color that gradually fades to a lighter blue throughout the week.

The artist said of her piece, “Those who have passed are still among us—that's what I tried to achieve with this piece. I love that you can see the blue of the wall through the doors of the sanctuary when you look back here from the stage. It's as if [the deceased] are embracing the congregation.”

The Temple plans to install additional pieces by other artists in the future.



**Artist Lita Albuquerque's Memorial Wall is the first of many new pieces of art that will be installed in the Temple.** Photo courtesy of Tom Bonner Photography.

## Restoration Team

The following companies were part of the careful and sensitive restoration and renovation of Wilshire Boulevard Temple.

Architect:

Brenda H. Levin, FAIA and  
Levin & Associates Architects

Landscape Architect:

Katherine Spitz Associates, Inc.

Contractor:

MATT Construction

Construction Manager:

Searock Stafford CM

Architectural Conservator:

Simpson Gumpertz & Heger Inc.

Structural Engineer:

Structural Focus

Mechanical and Electrical Engineer:

Stantec

Civil Engineer:

KPF Consulting Engineers

Lighting Design:

Francis Krahe & Associates Inc.

Acoustic & Audio Visual Design:

SIA Acoustics, LLC

Interior Conservation:

Silverlake Conservation

Art Glass Restoration:

The Judson Studios

Art Stone Conservation:

Preservation Arts

Interior Restoration:

K.C. Restoration and  
EverGreene Architecture Arts

Mural Restoration:

Aneta Zebala Paintings Conservation

Signage Designer:

Davies Associates



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## About the Los Angeles Conservancy

The Los Angeles Conservancy is a membership-based nonprofit organization that works through advocacy and education to recognize, preserve, and revitalize the historic architectural and cultural resources of Los Angeles County. The Conservancy was formed in 1978 as part of the community-based effort to prevent demolition of the Los Angeles Central Library. It is now the largest local historic preservation organization in the U.S., with over 6,000 members and hundreds of volunteers. For more information, visit [laconservancy.org](http://laconservancy.org).