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ON THE COVER Historical Concepts creates a new old chapel. More on page 42. Photograph by Eric Piaseck.



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UP ON THE ROOF

CertainTeed steps in to replace the roof on a church in Bellingham, Washington.

In Bellingham, Washington, the Church of the Assumption has a singular architectural distinction: Its steeple reportedly is the city's tallest. That's quite a feat considering that the red-brick church, which is a prominent downtown icon, is nearly a century old.

In preparation for the celebration of the church building's October 2021 centenary, parishioners embarked on a major building restoration and renovation project that included the installation of a new roof.

The parish itself was established in 1889; in 1921, the church moved to its present site on Cornwall Avenue. It took the parish nearly 30 years to pay off the \$200,000 cost of the building. The current campus includes a gym and parish center, which were added in 1962, as well as a school and chapel.

The old synthetic slate roof—installed 15 years previously—was cracking, allowing water to leak into the building. Parishioners considered replacing the synthetic slate with real slate, but they wanted a maintenance-free alternative that would not only be in sync with the building's architectural heritage but also could weather Bellingham's wet climate.

"This isn't just someone's house," says Karen Zuther, parish administrator for the church. "We won't be selling this. We'll be handing this off to the next generation, so we wanted it to last."

That's why Brett Esary, president of Esary Roofing & Siding of Burlington, Washington, suggested the church consider CertainTeed's Matterhorn Slate, which is made of steel but looks like the natural stone. "The price is about 20 percent less than slate and it's much lighter in weight," Esary says. "Slate has to be cleaned every couple of years; Matterhorn doesn't."

CertainTeed, which has been in business since 1904, introduced its metal roofing in 2015. There are three profiles—slate, shake and tile—in dozens of colors. "Traditional standing-seam systems are what people picture when they think of metal roofing," says Dale Walton, residential product manager for CertainTeed. "The vertical steel panels of that design offer excellent performance but are limited to certain architectural styles, such as farmhouses and barns. Our roofing offers a variety of looks between modern and classic styles that mimic traditional materials."

He says that Matterhorn Slate is particularly suited to historic restorations and traditional-style commercial and residential projects because it has proprietary chiseling that gives it a slightly weathered look.

"The products come with a limited lifetime warranty against manufacturing

The Church of the Assumption in Bellingham, Washington, has been a city icon for nearly a century. The church's roof, including the spire, is 20,000 square feet. CertainTeed's Matterhorn Slate, a steel product that replicates the natural stone, replaced a synthetic slate product that was applied 15 years ago. CertainTeed's Matterhorn Slate gives the spire a weathered look. defects for residential use and a 50-year limited warranty for commercial," he says. "And we offer the resources to support the product. We promise all new contractors that we will have a tech person on site just as we did at the Church of the Assumption."

Esary, whose 52-year-old company regularly uses CertainTeed products on its commercial and residential projects, says Matterhorn Slate was the perfect choice for the 20,000-square-foot roof and spire.

"The panels are 24 inches by 48 inches, so it's about 30 to 40 percent faster to install than stone," Esary says.

CertainTeed's MetaLayment, a waterand-tear-resistant underlayment that self-seals around each nail driven through it, was placed under the metal panels for maximum protection against inclement weather.

"You can see the Church of the Assumption from everywhere in the city," Esary says. "We knew the installation had to be perfect."

He says Matterhorn made things go smoothly.

"The install crews loved working with the product," Esary says. "They loved the

ease of installation and the quality of the components of the system."

The biggest challenge, he says, was working around the other crews and the church schedule.

"The whole building was surrounded by scaffolding because painting, masonry work, and window replacements were being done at the same time," he says. "It took lots of coordination, and there were times that we had to do things in sections and we had to stop work because of funerals."

CertainTeed's Matterhorn Slate looks so much like slate that many people take it for authentic stone.

"Even when we were installing it, people thought it was real slate," Esary says. "Everybody we talked with loves it."

The Rev. K. Scott Connolly says parishioners are pleased with the look of the new roof.

"It blends in so well with the beauty of our building and enhances the aesthetic for which we had hoped," Connolly says. "We've been here for 100 years, and with this roof, we plan to maintain this building for the next hundred."

- Nancy A. Ruhling



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institutional projects which demonstrate excellence in traditional design. Learn more at *TraditionalBuildingShow.com*



EMERGING PROFESSIONAL SPONSORSHIP PROGRAM

The Association for Preservation Technology (APT) Executive Committee recently selected an emerging professional to be on its board. Out of nine excellent candidates, all with solid credentials and great recommendations from people more advanced in the preservation field, Nina Jean-Louis was selected. This remarkable young engineer has already played a role in two important projects for APT, involving disaster response and sustainability/climate change and will travel to two conferences, made possible in part from a financial donation from *Traditional Building*.

APT supports emerging professionals that specialize in historic preservation or one of its affiliated fields architecture, architectural or materials conservation, architectural history/research, construction, construction management, engineering, interiors, landscape architecture, or planning.





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Pictured above: Immaculate Conception Cathedral - Lake Charles, Louisiana

INTERVIEW

INTERVIEWED BY ERICA FIRPO

The Best of the Old and the Best of the New

An interview with Lisa Tharp of Lisa Tharp Interior Architecture + Design.



HEALTHY HOMES Eco-sustainability has been a buzzword for more than a decade, and Tharp takes its tenets to heart. In 2008, Tharp began an ambitious project for her family home—Concord Green Healthy

LISA THARP

Lisa Tharp has always loved archi-

tecture, design, and history. Growing

up in New England, the Boston-based

designer was fangirling Architectural

Digest and dreaming of living on the

Avenue, while friends were leafing

through Seventeen Magazine. Design

was always the anchor as she navigated

an MBA at New York University and a

career producing advertising and video

programming for various Time Warner companies. "I would always find cre-

ative ways to incorporate visual design

in my work." Tharp left the corporate

design beginning with her own home.

world and steered her way into interior

Back Bay's tree-lined Commonwealth

Home (completed 2010), a new build on a historic lot. At a time when sustainable design meant modern architecture, Tharp was thinking of the resilient traditions of New England building. "I wanted to demonstrate that classic architecture can be healthy, that the same principles can be incorporated in a historic vernacular while still honoring the architectural vocabulary of places like historic Concord, Massachusetts. So, we combined the best of old and new, such as installing antique heart pine hardwood salvaged from local buildings fitted with modern radiant heating," explains Tharp.

CELEBRATING THE OLD AND THE NEW

For Tharp, whether designing a new home or restoring an existing one, she relies on traditional craftsmanship, quality of materials, and right-sizing, while incorporating energy efficiency and sustainable design. She regularly juxtaposes a mix of pieces from different eras. "We want to tell a story that celebrates the place as well as the people of that place." Handcraftmanship is integral to the story. Tharp works with millworkers, cabinetmakers, stonemasons, plaster artists, upholsters, tailors, specialty painters, and more to create custom furnishings and finishes which "elevate the space."

1 Why is Boston such a hotbed for preservation/restoration architecture? How does this incorporate innova-

tion/tech? As one of the country's oldest cities, Boston is blessed with a rich architectural history. This heritage nourishes the people who live/work here while attracting global tourism. I



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Millicent Library - Fairhaven, MA



Cincinnati Union Terminal - Cincinnati, OH



TARC Union Station - Louisville, KY



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SALT MARSH

Interior Architecture, Kitchen + Interior Design: Lisa Tharp; Architecture: Peter McDonald; Construction: Wilkins Construction

A simple saltbox is sensitively renovated and expanded, with inspiration from New England yacht-building traditions. Kitchen countertops are crafted from teak + holly boat decking and modern Neolith. Furniture-style cabinetry hides all appliances, save the La Cornue range.



am incredibly grateful to the many who are committed to preserving this special legacy, even as the city moves confidently forward through the 21st century. As a member of the neighborhood's Architecture Committee (Back Bay, Boston), I join my colleagues in carefully weighing the needs for modernization and development with preserving the area's unique character. Like I.M. Pei's famous Louvre pyramid, modern architecture can beautifully balance the traditional, if sensitively designed. Variance requests on zoning height restrictions are balanced with preserving the human scale of buildings, open sky, sunlight, and views. Even the style of new electric car charging stations are selected for their fit with the local vernacular.

2 You started your interiors career with a focus on "healthy homes." In 21st-century architecture, what is a healthy home? What are some of the traditional/yesterday design practices that are healthy? Our design work includes practices that are healthy for both people and the planet. In the 21st century, we have the best of the old and the new available to us. Our ancestors conserved energy by building with respect to the sun, wind, and shade. We now have technology that amplifies these benefits with passive heating and cooling design and renewable energy sources. Abundant daylight, clean air, and water are just a few factors that make home rejuvenating, and save energy too. Smart flow/space planning brings natural light deep into the center of the home, so that you don't have to turn the lights on during the day. Paints, floor finishes, and cabinetry that contain volatile organic compounds can now easily be replaced with non-toxic products like ECOS and formaldehyde-free materials. We ensure that our builder partners follow protocols that minimize renovation contamination of living spaces. We design furnishings with local makers as much as possible. We also restore antique/vintage pieces with non-toxic finishes and



PARK VIEW FAMILY ROOM

Interior Architecture + Design: Lisa Tharp

After an extensive renovation, this almost 5,000-square-foot city residence now exudes quiet luxury. Lacquered aqua walls and soft white millwork echo gorgeous park views. Custom furnishings join well-edited artifacts in inviting conversation while evoking memories of travel.

PARK VIEW LIVING ROOM

Interior Architecture + Design: Lisa Tharp

The living room was designed like a tranquil cloud floating above the park. Fibonacci curved sofa and chaise are from Lisa Tharp Collection. Wall sculpture is by Jennifer and Thor Bueno. Photograph is by David Maisel. The carved silk

rug is custom from The Rug Company.

chemical-free fabrics to minimize our footprint and support client wellness. It is better for us all to support craftsmanship traditions and sustainable materials rather than clicking "buy" for pieces that are made overseas, that contain questionable chemicals and that further undermine our rainforests.

3 Can you share some of the compromises that you had to make in Concord House? I learned very quickly that energy efficiency and healthy materials are not always the same thing. For example, closed-cell foam insulation offers great R-values in the attic, but its offgassing can cause headaches and other health problems. In such cases, health considerations

won out.

4 You describe yourself as an advocate for architectural preservation, how does this expand into urban development and evolution? The key is to take the long view. In 1849, art critic and philanthropist John Ruskin wrote on architecture, "When we build, let us think that we build forever. Let it not be for present delight nor for present use alone." Now, the financials are certainly an important consideration in development, yet they can, at times, be at odds with doing the right thing for the greater good over the long term. The evolution of our cities must honor key principles that protect and enhance their livability, such as architectural integrity, green and pedestrian-centric public spaces, access for all, and prevention and preparedness for climate change.



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A Temple for All Time

The Church of Jesus Christ of Latter-day Saints's Indianapolis Indiana Temple is a blend of classical architecture and regional motifs.



orrowing from the classical canon, the Indianapolis Indiana Temple uses the Doric order to lend heft and strength to the single-story structure. Five years in the making, the limestone building was informed by the city's historic Monument Circle, which is evidenced in the two carved spires, the taller of which reaches 86 feet above the roof, the other being 150 feet from grade. A circle-and-square motif—common in Latter-day Saints temples-was particularly important here, given Indianapolis is named "The Circle City." MHTN Architects, the team behind the project, took cues from the city's organization around a central circle. To inform the stepping of the stones and the design of the battered walls, they looked at significant civic monuments including the Indiana State Soldiers and Sailors

war memorial. Regionally inspired design motifs include carvings of the state tree's leaf and flower, which are visible in the stone window surrounds. Interestingly, a few of the carved-stone capitals have a lotus motif said to be of Egyptian influence. Other decorative elements feature Celtic knot line work in continuous bands and ribbons; and topping the temple is a gold leaf-gilded fiberglass finial of Angel Moroni.

A strong east-west/north-south orientation is demarcated at each cardinal point with a portico defined by freestanding limestone columns. The north-south porticos are broader than the others, the north being the broadest with an additional column. According to lead architect Randall Knight, the attic of each portico is ornately treated to highlight the center point of each façade; and each center point corresponds to important ritualistic interior spaces. The exteriors also feature ten fluted limestone pilasters incorporated between windows.

The temple's materiality was imperative. The 35,000 square feet of stone is predominantly a Turkish limestone. "Knowing this is Indianapolis, the heart of limestone building country, the church determined it would be most appropriate to do limestone, which is not typical for temples," Knight explains. "They are usually clad in a light-gray granite and are a brighter white. But Indiana limestone has a deep, buff-gray color." Because that color was problematic, the church asked the team to look at alternative limestones. Ultimately, they chose Aero Creme, which comes from a quarry outside of Antalya, Turkey, and is

fabricated by Metamar.

Façade specialists KEPCO+ played a large role in selecting the stone. "Our understanding of this client's expectation for 'temple quality' stone meant there needed to be a very thorough quality control program in place, and an equally diligent inspection and monitoring procedure," KEPCO+ president Bruce Knaphus recalls. Knight adds: "The client didn't want any elements in the stone [such as markings, fissures, veins, or mineral deposits] that would be a distraction or would compromise the serenity of the temple. The Aero Creme limestone does have some movement and figure in it, which is great because it looks like natural stone, but it needed to be consistent with no dark spots." To that end, the team traveled to Turkey for multiple quarry inspections as well as stone



FROM LEFT The Turkish

limestone, lighter and warmer than traditional limestone, was carefully selected to include movement and figure, but exclude fissures or veining. The light stone signifies the light and purity becoming of a religious edifice.

The Doric Order communicates proportion and strength to the single-story structure.

The classical proportions enhanced with locally informed detailing imbue a sense of timeless elegance.





ABOVE Everything above the 20-foot mark was panelized. Careful engineering and installation resulted in a seamless final result.

RIGHT The limestone choice on the temple reinforced the nod to the historical significance of limestone in the area.



slab and block reviews, during which they identified the color and quality criteria to guide Metamar's team. Mock-ups were then made with precise attention paid to how the various architectural elements would come together in the final installation and what those details would need to achieve aesthetically.

Of course, nothing is truly perfect. But additional measures were taken to get as close as humanly possible. "We purposely chose a much harder limestone than Indiana's limestone," Knight notes, "and that's good for longevity but it can be a little unforgiving in terms of chips and spalling. Though it was expertly fabricated, it was disconcerting to see chipping. But KEPCO+'s master cosmetic masons came behind with special epoxy mortar mixes and color matches you would never know that here and there were some imperfections."

According to Knaphus, everything above the 20-ft. mark was panelized in order to minimize labor costs, speed up the schedule, and reduce the need for high scaffolding. KEPCO+ fabricated and installed a total of 98 panels; they included the entablature detail around the main roof level, the roof attic, the screen walls, and the spire cladding. The tower was also panelized and erected in eight sections. The company performed the work in their Indianapolis facility, where back-up frames were galvanized and the stone was attached prior to the panels being trucked to the site and installed with a crane.

Because the temple is a 21st-century building, the stone façade needed to be able to move and react to lateral forces like high-velocity winds; there's also a slight seismic-load potential. Hence the need for movement joints, which, Knight notes, the team wanted to incorporate in an artful way. Among the benefits of using the panelization system was the opportunity to conceal those joints where the panels are clipped back to the roof diaphragm. Drift joints are visible at every corner, where there's a quirk miter detail—near the base of the building that miter resolves into a scoop. "That's how we could get those drift joints to work without interrupting the beauty of the building," Knight explains.

Set to withstand climate zone–related conditions as well as centuries of occupancy, the temple is a celebration of classical architecture, regional identity, modern-day craftsmanship, and the beauty of natural stone.

RESOURCES

Exterior: Aero Cream Limestone cladding, quarried in Myra, Turkey, and fabricated in Isparta, Turkey. Managed and installed by **KEPCO+ of Salt Lake City, Utah.**

Art Glass: Glass images of Orem, Utah. Much of the glass came from Kokomo Opalescent Glass in Kokomo, Indiana. It was assembled by artisans in Tijuana, Mexico.

Fountain: Both granites were fabricated and carved in Fujian Province, China. The fountain stone was installed by **KEPCO+ of Salt Lake City, Utah.**

Landscaping: The landscape architect was **Ratio Architects of Indianapolis, Indiana.** Featured are many varieties of plants, flowers, and trees native to Indiana.

Fence, Walkways and Plinth Garden: The plaza, curbs and plinth gardens were constructed from granite, quarried, fabricated and carved in China. The fence was fabricated and installed by **Capital City Ironworks of Indianapolis.**

Flooring: Blocks of stone were quarried in Italy, Pakistan, and Iran. They were fabricated in China and installed by **Bedrock Quartz of Utah.**

Pilasters: Aero Cream Limestone pilasters and columns were quarried and fabricated in Turkey. Perlatino marble pilasters were quarried in Iran and fabricated and carved in China. These stone elements were installed by **KEPCO+ of Salt Lake City**, **Utah.**

Interior Glass (Baptistry): The clear interior glass in the Baptistry viewing wall, curved railing, and doors were fabricated by **Glass Images of Orem, Utah.**

Lighting: Lighting for the temple was fabricated and installed by **HB Lighting** of Bronx, New York.

Millwork: Fabricated and carved by Granite Mill & Fixture Co., Salt Lake City, Utah. It was installed by Glen's Custom Cabinetry, LLC.

Baptismal Font Railing: The bronze railing surrounding the font was fabricated and installed by **Stewart Iron Works of Erlanger, Kentucky.**

Baptismal Oxen: The twelve bronze oxen supporting the baptismal font were designed, cast, fabricated, and installed by **Atlas Bronze Casting of Kearns, Utah.**

Baptismal Tile Work: The marble mosaic came from Iran and Pakistan and was installed by **Bedrock Quartz of West Jordan, Utah.**

Bas Relief Mural: This unique marble panel depicting the baptism of Jesus Christ was sculpted by **Jacob E. Dobson Studios, LLC.**

Painted Mural: The original oil painting wall mural, depicting nature landscape scenes of Indiana, was done by **Michael Albrechtsen of Olathe, Kansas.**



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HISTORIC MATERIALS

BY SUSAN D. TURNER

Bright Ideas

Shining a light on the history of illumination.

ight fixtures are significant to historic spaces. Not only do they have a distinctive shape, but also the original quality of light cast provided illumination that enhanced the architecture and rendered the colors in the room uniquely. Modern illumination using historic fixtures requires tailoring to achieve such effects.

HISTORY

Typically, historic homes capitalize on natural light via large windows and building orientation. The first fabricated light was likely a torch, while the first lamps were shells or hollow rocks filled with fuel such as dried grasses or wood. In 4500 BC, lamps came into use, whose fuel source later evolved to methane, ethylene, and kerosene. In the 1790s, the gas lamp was invented in England and brought to the United States. These lamps were popular, as the same fuel source, gas, was also distributed to homes for cooking. In the early 1800s, the first electric lamps were designed, followed by light bulbs in the 1830s. In the 1840s, the arc light was introduced to Paris. Early arc lights, or "limelights," for theatre lighting were created by directing an oxyhydrogen flame at a cylinder of calcium oxide. While this is no longer a source of theatre lighting, the expression "in the limelight" is still in common use. In the early 1860s, fluorescent lights were invented. Thomas Edison developed the carbon filament incandescent light bulb in 1879, which became the standard of lighting for decades. In the early 1880s, direct current electricity scaled to citywide levels, followed by alternating current in the late 1880s. In 1901, the mercury vapor light using standard power was invented. Following this, a variety of types of high-intensity discharge (HID) lighting were developed, high-pressure sodium, mercury vapor, and metal halide. When neon lights were introduced, they used argon or krypton gas in a closed tube, and electricity caused it to glow. Most recently, light-emitting diodes (LEDs) were invented; these did not require a glass bulb like earlier lights, but merely a semiconductor, which became much more energy-efficient and less expensive over time.

Gary Steffy Lighting Design restored the lighting in the William W. Cook Law Library Reading Room at the University of Michigan, Ann Arbor, Michigan.

COMPONENTS OF A HISTORIC LIGHT

The number of elements with which a light is manufactured depends on the time period of the light, but basically, a light fixture consists of a light source (bulb or flame), an energy source (electric, gas, or solid fuel), and the fixture's body. The body takes many forms, from ceiling mounted to wall mounted to floor standing to portable. Typically, historic lights include arms to support multiple light sources, since the wattage was not as high as is available today. A socket is mounted at the end of the arm, and frequently a shade is placed over the light source (a glass panel or globe, or a metal frame with fabric or paper over it), attached by a harp or bracket. All lights have some sort of base, whether it is weighted for a table or floor lamp, a plate for wall-hung lights, or a bell-shaped fitting for ceilings. Other parts could include a chain or rod to hang the lamp and/or individual crystals or chains to adorn it.

The materials of historic lights vary widely, from brass to bronze to cast or forged iron to even wood. Portions of the lamp may include adornments of cut, cast, or blown glass, ceramic elements, stained glass, or crystal. For the purposes of this column, only rewiring and relamping will be covered.

CONSERVATION APPROACH

As with all restoration projects, look for photographic evidence to determine the original configuration and placement of the fixtures, and at what date they were installed. When the decision is made to restore the fixture, determine the restoration goal. Is it to clean up the fixture and make it safe? Or is it to restore the original appearance? Once that direction has been decided, survey the fixture. Determine if there are any parts missing. Assess the condition of the wiring, the sockets, the finish on the fixture body, the integrity of the castings, and the condition of the adornments. Determine whether the light is for supplemental lighting or needs to provide the bulk of the lighting in the room.

REPAIR VERSUS REPLACEMENT

Many companies claim to be able to replicate fixtures exactly. While this is



1: Prehistory, 2-3: Egyptian (circa 400 BC), 4-5: Assyrian, 6-13: Roman, 14-15: Carthaginian, 16-17: Merovingian, 19-20: 11th century, 21: 12th century, 22: 13th century, 23-24: 14th century, 25-27: 15th century, 28: 16th century, 29: 17th century, 30-31: 18th century, 32-54: 19th and 20th century

possible, typically the quality of the brass or bronze, the existing patina, and the craftsmanship are difficult to reproduce. It is always best to restore the historic fixture, leaving some of the patina. This does not prevent the light from achieving higher, more modern lighting levels through the introduction of higher-wattage bulbs, or more bulbs within the enclosure. If there are missing fixtures, use the original to replicate the new ones, and document which are old and which are new somewhere on the fixture, for posterity.

When restoring, start with documentation. Photograph the light fixture from all sides, below and above. In order to do any work on it from rewiring to cleaning, the pieces should be taken apart. Do this systematically, labeling the parts and photographing them in order on a large work surface, to enable reassembly.

If the pieces are not taken apart, the joints tend to build up with cleaning pastes, or worse, a chemical cleaner can enter these joints and continue to corrode undetected on the interior. Review individual pieces for condition. If there are corroded areas or missing pieces, these can be repaired/replaced by historic light restorers.

There are many online lamp stores that can provide the parts for minor repairs. Many people think they can rewire the lamp themselves. An important point to make is that even when using all UL (Underwriters Laboratories) or CSA (Canadian Standards Association) listed parts, the completed project does not equal a UL/CSA-labeled fixture. Only qualified electrical shops can provide a refurbished light fixture with a UL/ CSA sticker. Why is this important? When you purchase a modern light fixture, it is typically "UL Listed" (ULC in Canada) or CSA Listed. Underwriters Laboratories is a group that sets standards for building elements to be insurable, while CSA sets standards and verifies quality and conformance of lighting, among many other products. If a light fixture is rewired incorrectly or the design of it results in an electrical fault, it could result in a fire. If it is not UL or CSA listed, it may void the home/business owner's insurance.

When rewiring, ensure that new wiring is the high-heat type. If there is cloth wiring, be aware that it likely contains asbestos. If you like the look of cloth wiring, it can be replaced with rayon "cloth"–wrapped plastic-coated high-heat wiring. The wiring can be run within the arm of a gas light invisibly and permit the conversion of the gas light to electric.

RELAMPING

Typically, early historic lights used lowerwattage bulbs, until higher-wattage bulbs were later invented. To keep the look of the fixture, a higher-wattage bulb can be used, but only if you have accommodated the change by upgrading the wiring and the socket. You can increase output by increasing the number or type of light sources within the fixture, but this could change the look of the fixture and should be done sensitively and reversibly. Lastly, the light source can be changed, such as by using LED sources. The advantages to LED lighting are many: lower power consumption, higher efficiency, less heat, and greater light output while using smaller-gauge wires. The color of the light can be programmed to resemble gaslight or candlelight, or display non-historic colors like red or green for temporary modern effects.



Restored Gothic chandelier hangs in the library. The project won an AIA Michigan Honor Award.



Gary Steffy, a master lighting designer, did not attempt to push light levels through the original historic fixtures. Rather, his goal was to raise ambient light levels in the room as a whole to create balance, reduce eyestrain from bright, focalized light sources, and highlight the room's architectural beauty.





Close up of the Gothic chandelier

Understanding Light Quality

With the rapid development of all forms of lighting within a period of 100 years, it can be difficult to ascertain with which lighting source a space would originally have been lit. Each of the light sources described above provided a different light quality. Light is composed of intensity (brightness), direction, and color (wavelength spectrum). When retrofitting a light fixture, it is important to emulate these qualities to provide the best historic match.

- The intensity of light can be measured in the more archaic unit of foot-candles, which is based on the amount of light from one candle falling on a surface at a distance of 1 foot. Its modern equivalent is 1 lumen per square foot, or 10.76 lux. There are design guidelines for lighting levels, related to the function of the space. Typically, historic lights provide less light than modern functions demand.
- Direction of light can assist or hinder sight in a space. If the bulbs are exposed and very bright, they will cause glare, and the light fixture itself will not be appreciated. If the light is very directional, it can produce "hot" and "cold" spots in the lighting design, leading to inefficient use of the available light.
- Color of light influences perception of colors in the space. The color temperature of light is measured in degrees Kelvin (K), with the sun registering between 5000 K and 6500 K. Examples of typical historic light colors include the following: candlelight is 1650 K (favoring the red spectrum), gaslight is 1980 K (favoring the blue spectrum), and original Edison bulbs were 2200 K to 2400 K. The color rendering index (CRI) is a relative measurement of a light source from 1 to 100, where 100 is the closest to the color rendition of the sun. It is important to realize that when trying to achieve the light quality of the original fixture, a high CRI may not be what you are aiming for.

PRACTICAL APPROACH

In the process of writing the column on Restoration of Lighting, many excellent restoration companies were consulted. Jason Selnick, vice president of National Sales for of Crenshaw Lighting provided technical support to the article, based on Crenshaw's experience with many large and small historic light restoration projects.

Crenshaw's General approach is to be a partner from the start. "We love to visit the site, and make observations of the lights, in collaboration with the client, the lighting designer, the architect, or a combination of stakeholders." The first step is to understand the lighting goals, and the overall intent of the restoration. This determines the scope and leads to itemizing the minutia of work involved in each fixture, balancing the criteria of architect, the lighting designer, the client, and the technical constraints of the existing fixture with CSA listing.

Initial inspection documents the alloy and thickness of metals, the connection methods, the state of any painted finishes, determines any missing lenses or nonhistoric parts, identifies broken parts (finials, arms, sockets etc.) enabling detailed work scope for bidding. "After bidding and award, a large project can take from 16 weeks to over a year to execute."

Preparation work in the field is as important as actual work in the workshop. "It starts with site assistance to remove the fixture, labeling each for its unique mounting and location tied back to a ceiling plan. We crate the fixtures and truck them back to the shop." With large numbers of fixtures, a mock up is recommended, following the same process as will be implemented on each subsequent fixture. The parts are numbered, the fixture is dismantled, the wiring removed, and missing or broken parts are identified for order or fabrication. Based on the design intent, the patina can be either 'touched up' or completely reapplied. The patina is addressed before reassembly, rewiring, and relamping. The mock-up is then reviewed by the stakeholders to ensure that the desired visual effect is achieved relative to lighting levels and final appearance.

After the mock-up is approved, the rest of the fixtures are completed, labeled for their return to their original locations, crated in the shop, and shipped by Crenshaw to the site. "We prefer to be involved from start to finish." Selznick is proud that they are a "one stop shop. We do it all, from glass blowing to CSA testing."

REFINISHING

Refinishing varies greatly, depending on the base material, and will not be covered here. However, a common problem with old light fixtures is that they can be painted over. The paint finish can be removed using a variety of paint stripping products. It is important to consider whether there was an original polychromatic painted finish; if this is suspected, a paint conservator should be consulted to remove the paint in layers to enable exposure of the original finish. That finish can then be either restored or replicated.

CAUTIONS

Phot

When hiring a company to perform restoration, communicate your expectations with respect to patina appearance at the completion of cleaning. Discuss with them what the purpose of the light will be once it is returned. If it is a small chandelier providing one of many light sources, it is not an issue if the lighting level of the original fixture remains. If, however, this is a lighting upgrade and you are trying to get the historic fixture to provide the brunt of the lighting, then you should understand the ways to increase the output without compromising the appearance of the fixture.

One final caution: increase all lighting within a space relative to the other lighting elements. For example, if the overall light level is 2 foot-candles and the stained glass is backlit with 8 footcandles, if the main fixtures increase to 15 foot-candles, the stained glass will lose all its glow, as the backlighting can't compete with the incident light.

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SUSAN D. TURNER is a

Canadian architect specializing in historic preservation of national registered buildings. She is the Director of Architecture for The Tradesmen Group, a restoration contractor specializing in the repair and preservation of historic buildings. She can be reached at sturner@tradesmengroup.com.





Sisters of Saint Joseph Chapel Chestnut Hill, PA

Custom 27' Diameter LED Corona Fixture

Architect: Bernardon Lighting Design: The Lighting Practice

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TECHNIQUES

BY JUDY L. HAYWARD

Belfries and More

Craft, communication, and celebration at the First Parish Meetinghouse in Derry, New Hampshire.

e ask a lot of steeples, belfries, and bell towers. For 365 days a year, year in and year out, they weather rain, wind, and storms. We expect them to be beautiful, inspirational, straight, and sturdy. Timber framers who repair these iconic structures know that there is more than meets the eye; the loads these buildings carry behind their deceptively simple white clapboard façades are enormous and complex.

Take the East Derry First Parish Meetinghouse, for example. In June of 2019, the crew of Preservation Timber Framing, with the aid of a crane, hoisted a restored bell tower, bell, and double lantern weighing 43,400 pounds onto the 250-year-old meetinghouse as part of the 300th anniversary of "Nutfield," an area in southeastern New Hampshire where Scots-Irish immigrants settled in 1719. It was the culmination of seven years of work on the historic church.

In 2009, the East Derry Meetinghouse appeared on the New Hampshire Preservation Alliance (*nhpreser-vation.org/seven-to-save*) annual list of at-risk projects, "Seven to Save." An architect was hired to develop a comprehensive preservation plan within the Secretary of the Interior's Standards for Rehabilitation. A budget of \$1.5 million was established. The exterior and trim were painted in 2011, and electrical upgrades were completed in December 2012.

In 2013, the congregation selected the contractor for the structural repairs, Preservation Timber Framing (*preservationtimberframing.com*), founded by Arron Sturgis in 1987. The South Berwick, Maine, contractor specializes in heavy timber framework including steeple and bell tower restoration, barn restoration, and other historic preservation projects. Sturgis is a past president of Maine Preservation and is very active in the New England preservation community.

Sturgis says his projects begin with a rigorous condition assessment of the project: the structure is studied, archival information is gathered, and extensive documentation of existing conditions and prior repairs is reviewed and evaluated. Arron noted that despite this extensive research, unknown variables continue to challenge historic preservation projects like this one. He noted that good communication from the onset helps when these setbacks occur. He and his crew make regular reports and publish them on his firm's website to keep current clients and the general public informed about the triumphs and



Small-Town Project with an International Heritage

The Scots-Irish settlement of Nutfield in 1719 was the first in North America established by a group that left what is now Northern Ireland in the Great Migration of 1718. As part of the celebration, an academic conference was held, with scholars and visitors from Northern Ireland making the trek to New Hampshire in April 2019. The New Hampshire communities that make up Nutfield include Londonderry, Derry, Hampstead, Windham, and part of Manchester. For additional information, check out the following sites: **nutfieldhistory.org fotmh.org**

ABOVE A celebratory bell ringing takes place after the successful return of the bell tower, bell and double lantern to the meetinghouse in the midst of an active construction site.

LEFT With most of the character-defining bell tower now restored, the Meetinghouse awaits interior work and completion of an elevator and other improvements via a new connection to its parish hall.



"Communication is critical to the success of a large preservation project like this, and Arron Sturgis and team have been a great ally. Through photographs, videos, social media, and live presentations, we work to detail specific rehabilitation challenges and their solutions—as well as describing the overall progress—all with a positive, confident attitude while not diminishing the overall difficulty and long-term nature of the work. We're also conscious of three distinct audiences: the general public; passionate, interested stakeholders in the congregation;

and the state-wide preservation community." — PAUL LINDEMANN, BUILDING COMMITTEE, EAST DERRY, NEW HAMPSHIRE, FIRST PARISH MEETINGHOUSE



travails that typify historic preservation projects. The project in East Derry was aided even further by one of the congregation's members, Paul Lindemann, a marketing professional and webmaster of the site "Nutfield History" (*nutfieldhistory.org/history*).

The decay was worse than anticipated, and stabilizing the structure was going to require more than work on the tower. Lindemann and the meetinghouse building committee stayed the course and raised \$800,000 in pledges, payable over four years. They kept moving forward.

Sturgis notes that over the past five years, his crew has "lifted and moved the church onto a new foundation; rebuilt the undercarriage; replaced two 60-foot tower posts; and disassembled, reproduced and rebuilt the belfry and lanterns." The work culminated in June 2019 when the belfry was raised. It was technical trade theatre at its best, and craftspeople and onlookers held their breaths.

Jessica MilNeil from Preservation Timber Framing writes regularly for the firm's blog. She recounts the details of raising the belfry. "The crane and crew installed the rigging steel. Four steel I-beams were inserted in a grid beneath a ring of ledgers bolted to the belfry posts. The belfry posts extend deep into the tower, 12 feet below the tower plates. They emerge 15 feet above the tower plate. Stationed on the ground, the belfry, lower lantern, upper lantern, and mast are almost as tall as the base tower, rising to just 6 feet shy of the tower plates."

"Rigging a tower this tall is a challenge. We want the straps to be long enough so they won't bind on the tower,



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but they can't be so long that we run out of cable on the crane. Our first arrangement of rigging straps was doubly wrong: The straps bound on the belfry baluster were too long overall; the crane operator couldn't retract the cable enough to get the stretch out of the rigging. Fortunately, by reversing the upper and lower straps, we were able to clear the balustrade and stay short of the crane's reach."

"After the crane took a little weight, we dismantled the front wall of staging and swung the belfry away from the church and the rear staging. The belfry had been built tight to the tower, and the staging had been built tight to the belfry in order to hang the trim and apply copper to the bell deck and lanterns. Brian and Dave planned the restoration so that nearly all the finish work could be done 'on the ground' before the belfry and lanterns were lifted into place. It's a lot easier to fit elaborate trim 20-40 feet above the ground rather than 60-80 feet. We needed to break down the staging and swing away from the tower so that the belfry would clear the building on its way up."

While the excitement of raising the belfry with a crane is a crowd-pleaser, the subtle details of restoration and repair are equally breathtaking and require as much attention to detail.

MilNeil recounts Tom Glynn's replication work on the belfry's louvered fans (fanlights): "Four of the fans were in good shape, and required 'cosmetic' repairs, gluing, and re-fastening. Four needed to be replaced completely. Tom started by transferring the measurements from one of the original fans to a sheet of MDF, creating a full-size drawing. He used this template to begin cutting pieces from 2-inch thick eastern white pine." Whether you are lifting heavy timber, replicating period details, or raising funds, details matter.

Celebrating the triumphs and sharing the setbacks build support for the project when the stakeholders and general public are informed on a regular basis. Lindemann says that now that most of the structural work is done, the meetinghouse building committee and an allied 501 (c) (3) nonprofit friends group are working on the next phase of the project: all the interior rehabilitation including lead and asbestos abatement, providing accessibility (for people and for coffins) with an adjacent elevator structure, and rehabilitating the roof structure and surface.

Lindemann says that having the friends group has opened opportunities for donations that might not have been eligible for direct donation to a congregation and helped put the focus on the meetinghouse as an important historic landmark and community resource rather than soley being a church. Creating a separate nonprofit in support of historic houses of worship has proven to be an important fundraising strategy throughout the United States.



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PRODUCTS IN-DEPTH

BY ALEXANDRA PECCI

This window by Rohlf's Stained & Leaded Glass at Our Lady of the Angelus Church in Rego Park, New York, depicts The Ascension

Gloriou Glass

These companies take stained-glass to a higher art form.







ABOVE The Holy Trinity is depicted in this window by Rohlf's Stained & Leaded Glass at St. Edwards the Confessor Church in Syosset, NY.

LEFT The Rohlf's Stained & Leaded Glass family: president Hans, CEO Peter, and vice president Greg Rohlf. n most buildings, a window's functionality is fairly straightforward. But stained glass windows are different, doing more than filling a space with sunlight, but also telling a story, inspiring, and maybe even bringing viewers closer to the divine.

"I think people like to go into their house of worship and look at the stained glass windows and pray, look at the artwork, reflect," says Brian T. Baker, owner and founder of Baker Liturgical Art, which has offices in Connecticut and Florida.

Stained glass has been used in liturgical settings for centuries, but its beauty and popularity hasn't waned. Instead, craftspeople continue to work with this ancient art form, preserving and protecting existing stained glass, and making new pieces for modern audiences.

Today, stained glass is found in museums, colleges and universities, mausoleums, private homes, public spaces, and government buildings. But it's still most commonly associated with houses of worship, from the iconic rose windows at Notre-Dame in Paris to the Louis Comfort Tiffany stained glass windows at the Arlington Street Church in Boston.

"It was designed to tell stories," says Peter A. Rohlf, CEO of Rohlf's Stained & Leaded Glass Studio, Inc., in Mt. Vernon, New York. "Stained glass was the story teller of the bible centuries ago. And in some cases it still is today."

In fact, when it comes to new pieces

of stained glass, experts say new church commissions are often moving away from contemporary, abstract designs and back toward traditional images of figures and biblical scenes.

"We really see a resurgence in traditional art in the Catholic Church in what we're doing now," Baker says.

Rohlf agrees, saying that nearly all the new windows they're designing are in a traditional style, such as the 31-by-16foot stained-glass window in the chapel of Our Lady of Perpetual Help Home in Atlanta, Georgia, which depicts the resurrection of Christ.

"People want to recognize the figures and the symbols," he says. "They don't want the modern or abstract of yesteryear."

Of course, that's not always the case. One spectacular example of a contemporary stained glass window is by Bovard Studio, Inc., in the West Angeles Cathedral in Los Angeles. It consists of a central cross tower window measuring 108 ft. high, 10 ft. wide and 35 ft. deep, and a connecting stained glass clerestory band that's 8 feet ft. high by 653 ft. long.

Ronald Bovard, owner of the Fairfield, Iowa-based company, says this Holy Spirit window is a fully abstract, contemporary design that's representative of multiculturalism with all of its bright colors. In addition, the window had to be approved by the city of Los Angeles to meet its earthquake code.

Whether a design is traditional or



contemporary, new projects begin with a concept, sketches, and a full-sized drawing, or cartoon, to create the client's vision. Once a client approves the design, the craftspeople can get to work creating the windows.

Stained glass colors are traditionally added to the glass itself using heavy metals to create different colors, like gold for red, cobalt for blues, and copper for green. Although machine-rolled or cathedral glass is an option, many craftspeople prefer to use blown sheet glass, which often comes from Europe.

Compared to machine-made pressed glass, which Rohlf says has a "dull, flat look," blown glass "sparkles; it has life to it."

"If you're looking for high-end stained glass, most of it is blown glass," Baker agrees. "There are new techniques...but if one of my clients is looking for high-end glass, I always go toward the blown stained glass."

Often, especially when the windows depict figures, a painter will use paint to shade, tone, and highlight the glass before it's fired in a kiln.

Another iconic element of stained glass windows is the came, thin strips of metal which are traditionally made from lead, that hold the individual glass panels together to create the window's images and designs.

Windows can also be waterproofed, structurally reinforced, and even crafted to withstand hurricanes and earthquakes. Rohlf adds that venting is important, too, to preventing condensation, oxidization of the leads, and dry rot of wooden frame systems.

THAVE FINISHED AY COVA

"Even the new and restoration windows we make sure are vented today, which is an important aspect for the preservation of the windows," he says.

When it comes to restoration and preservation, incredible care is taken to document every detail to ensure that the glass is preserved, repaired, and in some cases, re-created, exactly the way it was originally made. The first step is photographing the windows before the work starts. Then, the windows or parts of windows are carefully removed and photographed again in the studio.

Conservators will also do rubbings of the windows on acid-free, archival vellum paper, says Roberto Rosa, vice president of Serpentino Stained & Leaded Glass in Needham, Massachusetts. Rubbings not only show details like the size, shape, and location of the panels and the sizes and profiles of the lead, but also document elements like the date, artist, and any problem areas in the window for future reference and restoration.

"It's sort of like a roadmap of the window," Rosa says. "It's an invaluable document for us as we're creating and conserving the window, but also for the client afterwards."

The panels are also cleaned and the lead is removed where needed. Depending on the type and extent of the glass



TOP LEFT Designed by John La Farge in 1889, this triptych depicting St. John, Christ, and St. Paul at McMullen Museum, Boston College, was restored by partial releading. All of the original lead matrix in the base layer was retained.

ABOVE The "Pilgrim's Progress" window designed by Frederic Crowninshield in 1898 at Emmanuel Episcopal Church of Boston was restored and completely re-leaded. All cracked glass was preserved with Hxtal epoxy and conservation grade silicone. The window was reinstalled in 2007. Both windows were restored by Serpentino.

RIGHT Designed by John La Farge in 1897, "The Harpist" window at Emmanuel Church-West Roxbury, Massachusetts, was restored by partial re-leading. Cracked glass was conserved and all of the original lead matrix in the base layer was retained.

BELOW In this window by Rohlf's Stained & Leaded Glass at St. Edwards the Confessor Church in Syosset, New York, Christ hands the Key of the Kingdom to St. Peter.





ABOVE Jesus prays at the garden of Gethsemane in this window by Rohlf's Stained & Leaded Glass at St. Edward the Confessor Church in Syosset, New York.



ABOVE Christ is carrying the Cross in this window by Rohlf's Stained & Leaded Glass at St. Edward the Confessor Church in Syosset, New York.



damage, the panels might be repaired with epoxies or replaced completely. Although some conservators replace all the lead came during this process, Rosa prefers a less-is-more approach and only uses new lead where it's needed, particu-

Instead, he reuses the original lead because it's part of the window's "history and integrity." He points to one project at Salve Regina University in Newport, Rhode Island, where they restored 13 windows by John La Farge and saved about 85 percent of the original lead.

larly if it's a La Farge or Tiffany window.

"It's such fine, detailed leading and craftsmanship," Rosa says. "It would be a crime to just dismantle it and throw it all away."

Whether it's brand new or painstakingly restored, a beautiful stained glass window does more than filter light.

"I really think it's spiritual," says Baker. "I think it makes people feel good."

RESOURCES:

Bovard Studio Inc. 2281 Business Highway 34 Fairfield, Iowa 1-800-452-7796 www.bovardstudio.com

Rohlf's Stained & Leaded Glass Studio 783 South Third Ave. Mount Vernon, NY 914-699-4848 rohlfstudio.com **Rambusch Lighting Co.** 160 Cornelison Ave. Jersey City NJ 201-333-2525 **rambusch.com**

The Art of Glass, Inc. 316 Media Station Road Media, Pennsylvania 610-891-7813 **theartofglassinc.com**

Serpentino Stained and Leaded Glass 21 Highland Circle Needham, MA 781-760-7602 serpentinostainedglass.com

Burnham and LaRoche Associates 441-443 Fulton Street Medford, MA 781-395-5047 BurnhamLaroche.com

Botti Studio of Architectural Arts 1225 Harms Road Glenview, IL Phone: 847-869-5933 **bottistudio.com**

Baker Liturgical Art 1219 Meriden Waterbury Road Plantsville, CT 860-621-7471 bakerliturgicalart.com

The Hyland Studio 650 Reed St. Santa Clara, CA 408-748-1806 **hylandstudio.com**



PROJECT The Southern Hotel ARCHITECT Trapolin-Peer Architects CONTRACTOR Woodward Design Build

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RENEWED HOSPITALITY

New Orleans-based Trapolin-Peer Architects was commissioned to make the historic Southern Hotel hospitable one again.

BY NANCY A. RUHLING | PHOTOGRAPHY BY JEFFERY JOHNSTON

or some 60 years, in the town of Covington, Louisiana, The Southern Hotel on the north
shore of Lake Pontchartrain was the premier place for vacationers to stay.

In the winter, visitors from the East Coast trying to shake off the snows rented its luxurious rooms; in the summer, the well-to-do of New Orleans society traveled the 41 miles to escape the stifling heat of the Big Easy.

The 34,000-square-foot Missionstyle structure, which opened its doors in 1907, is one of the bigger buildings in the tiny town, whose population is only 8,700. What's more, it occupies a prime piece of real estate on Covington's iconic Boston Street, which is what the main thoroughfare is called.

But when the tourist trade faded, so did the glory of The Southern Hotel. Through the years, the building was used to house a variety of commercial tenants, including the St. Tammany Parish government, which used it as a courthouse. When Hurricane Katrina struck in 2005, it had a last hurrah as the headquarters for the Federal Emergency Management Agency.

It remained vacant until two couples bought it in 2011 with the intent to restore it and open it as a boutique hotel, a move they hoped would help revive the downtown district.

"Covington didn't have a nice boutique hotel," says Peter Trapolin, FAIA, of New Orleans-based Trapolin-Peer Architects, whose team, which was led by project architect Ashley King, AIA, was commissioned to make The Southern Hotel hospitable again. "There were only highway chain hotels."

The goal of the project was to make the hotel a go-to destination not only for tourists but also for locals who wanted to hold events such as weddings there.

Period-style accuracy was paramount: The project received historic tax credits from Louisiana and federal subsidies, offsetting 45 percent of the construction costs. "We had to adhere to state historic preservation and National Park Service guidelines," Trapolin says.

The building, which King says was derelict, neglected, and mostly vacant when they began work, had been altered through the years and needed considerable structural shoring up that included a new foundation.

The composition-shingle roof, which was intact and in good shape, had to be brought up to current codes, and the main entrance, which features a loggia, was restored. So were the ground-floor openings, the side façade, and the corner entrance. Two original towers on the façade had been gone so long that the team decided not to reintroduce them.

"During the excavation for the footing for the column supports, we encountered a lot of water that was unexpected," Trapolin says. "We never determined the origin—it could have been a remnant of the original artesian well that was in the original lobby or it could have been a municipal water leak. Each section had to be poured separately. This was one of the biggest complications of the project because it took more time."

The U-shaped building, which has guest rooms on each wing, featured a parking lot in the center. Under the new plan, a single-story addition enclosed the space, transforming it into a square, selfcontained, central courtyard.

The public-events spaces, including the ballroom and the sunroom, open to it.

King says that the addition, which houses a fitness center, connects the wings' two sets of stairs and serves as a passageway for housekeeping staff.

"The addition keeps the workings of the hotel behind the scenes, by connecting the spaces on the ground floor and providing access to both upper-floor guest wings," she says. "Since the main lobby and bar are in the front of the hotel, it also allows for a slight separation of the public, private, and back-of-house spaces but still have them interact. That was the challenge—the other piece of the puzzle to the design."

A restaurant and bar, which have become quite popular with townspeople, were added in the original building footprint, and a sunroom was sited to the lobby side. It, too, opens to the courtyard, which features an antique fountain.

"To add the sunroom, we tore down a masonry room that had been added during one of the renovations," Trapolin says. "We had originally envisioned

The focal point of the lobby, which has a beamed ceiling as well as columns and arches, is the double-sided fireplace.






ABOVE The two suites in the hotel feature Carrara marble bathrooms, complete with soaking tub, double vanities, and walk-in glass shower.

RIGHT The Mission-style red-brick building is painted in tan, olive, and red—Arts and Crafts/Mediterranean colors. The wooden balusters on the balcony are replicas of the originals; the curved top was added to make them 42 inches high to comply with current codes.

CENTER The hotel has a side lobby that opens to the parking area. Off of this lobby is a painted paneled sitting room for the guests as a quiet retreat from the rest of the hotel. An antique cast iron Corinthian column capitol the owner acquired at an antique show acts as a focal point.







steel-framed windows for the sunroom, but we could not get them delivered in time, so we went with wood-framed ones instead."

The team studied period photos and used fragments of original elements to recreate the building's distinctive details. The windows and doors, which are made of Spanish cedar, are replicas of the originals.

The 36-inch-high turned-wood balcony balusters on the exterior are the same design as the originals, but they are topped with a 6-inch-high supplement, simple in design, to comply with current code heights. The owners painted the brick exterior of the building in an Arts and Crafts/Mediterranean color scheme of tan, red, and olive.

The interior presented its own challenges. Only one period photo of the lobby exists, and it doesn't show the focal-point fireplace. The team determined its original location and created a double-sided masonry replacement that opens to the newly created sunroom and outdoor courtyard.

Columns connected by arches divide the lobby space into cozy nooks, and antique pine ceiling beams impart an air of antiquity.

"The decorative lobby columns conceal the steel ones, and the arches cover the steel beams," King says. For the placement of the 42 rooms and two suites, the team let the locations of the bathrooms be the guide.

"The guest rooms are not large by today's standards," Trapolin says, "but they have high-end finishes and amenities."

The suites, for example, feature double vanities, a soaking tub, a private water closet, and a glassed-in walk-in shower. The walls and floors are paneled in Carrara marble. Above each tub is a custom mural. And the furnishings include pencil-post beds made from heart pine by a local artisan.

The interior is decorated in a period style and features the owners' art collection as well as works by local artists. "Covington has a large and active art community," Trapolin says, "and the owners wanted to include their work."

The project, winner of the Foundation for Historical Louisiana-2014 Phoenix Award and the 2015 Louisiana Culture Award for Preservation Heritage from the Louisiana Office of Cultural Development, has helped spur the rebirth of Covington.

"We are still getting positive feedback five years after it opened," King says. "People who live in Covington love to visit the bar and restaurant, and many of them have attended weddings there." **TOP** The hotel features a small meeting room in addition to its ballroom, called the Olympia Room, named after the local fifty-year-old Mardi Gras Krewe. Custom cabinets display the Krewe's artifacts and memorabilia for the public to see.

ABOVE The living room of one of the hotels suites features exposed brick walls and reclaimed antique heart pine floors.

HEAVENLY SETTING

Houston-based firm of Curtis & Windham design an addition to the Church of the Heavenly Rest that complements its original design.

BY NANCY A. RUHLING | PHOTOS PAUL HESTER

ith its soaring-spired bell tower and religious devotion to details, the Church of the Heavenly Rest in Abilene, Texas, represents the epitome of English Gothic-inspired ecclesiastical architecture. Architect Philip H. Frohman, the designer of the National Cathedral in Washington, D.C., and more than 50 of America's most noted churches, sited it on a hill right outside the city some 70 years ago.

Through the decades, as the number of the Episcopal church's parishioners more than doubled, the stone structure has maintained its historical architectural integrity. The rest of the church campus, which is comprised of a parish hall and a parish house, was set around it, forming an L-shaped complex.

- A

During the latest expansion, the Houston-based firm of Curtis & Windham was commissioned to design a 5,922-square-foot dining hall that would, as one of the founding principals, Russell Windham, says, "complement the architectural language of the church while respecting and relating in scale to the neighborhood and church context."

After seeing a model of the traditionalstyle campus center Curtis & Windham designed for the private K-12 St. John's School in Houston that featured a seating space for 1,200 people, the parishioners cultivated a patron who wanted to finance what Windham calls a "sophisticated" architectural structure.

He says the parishioners, who have a tradition of community service, requested a space that had a large kitchen so they could prepare and deliver food to the needy and that would also serve as a lecture and events venue for churchgoers and members of the public.

"They wanted a proper parish hall and for the spaces to be connected so they could move from one building to the next on the campus in inclement weather," he says. "They told us that the spaces did not need to be enclosed, but they did have to have roofs."

Windham, along with project architect Mark Ofield, project manager Matt Vaclavik and architectural designer Katherine Hart, proposed creating a cloistered connection and siting the new structure to make a selfcontained central courtyard bounded by a new wood and stone cloister that provides public access to the church structures and that can also be used as a gathering space for large events.

"This was a very appealing idea because the public green space didn't add to the budget – it was free," Windham says. From the beginning, the team established a hierarchical architectural order that put the new space in second place. (The two older buildings—the rather pedestrian parish hall and parish house—assumed a tertiary role of importance in the design plan.)

"We did not want to compete with Frohman's great architecture," Windham says. "Of all the buildings—not only church buildings—in Texas, it's one of the best I've ever seen. The exterior is a grand gesture the nave is 24 feet wide—but the interior is intimate. We also wanted our building to defer to his because ours is merely a parish hall, not a place of worship."

By virtue of its height, the bell tower of the Frohman structure, which was in the original plans but was not added until the 1980s when the parish could afford it, confers No. 1 status to the building.

"Gothic architecture is attenuated upward to be in touch with God in the sky," Windham says. "Frohman's tower is soaring you can see it from all parts of the town—but it's modest like the people of Abilene."

Gerhart Hall, which is named for the longtime parson who commissioned Frohman to design the church, is made of Lueders Texas limestone quarried from the same area as that used on the church. The hall's design and details, including the windows and doors, take their cues from Frohman's motifs.

Because the hall is visible from all sides

PROJECT Church of Heavenly Rest ARCHITECT Curtis & Windham

> Gerhart Hall was designed by Curtis & Windham for the Church of the Heavenly Rest in Abilene, Texas. In the architectural hierarchy, the Frohman church is first, and the new parish hall is second.

AMAS

APAP





ABOVE The woodslatted, straphinged entrance doors, painted greygreen, are custom and are modeled after those of the church. The church's bell tower, which was in the original plans, was added in the 1980s when the parishioners could afford it.

OPPOSITE The interior of the great hall is reminiscent of a church. The soaring ceiling is covered in blue acoustical tiles. of the campus, a chimney was added to house the mechanicals so the roof line would remain pure; trash receptacles were hidden behind a stone wall at the kitchen entrance. Gerhart Hall, which looks like a church, is

tripartite—the great hall is flanked by east and west aisles. "The parishioners wanted different ways

to use the building," Windham says. "They wanted spaces for large groups and small groups. This helped us make the architecture more interesting."

The interior of Gerhart Hall is in sync with its secondary status.

"There are no stained-glass windows, again, because we wanted the Frohman building to be the most elaborate," Windham says. "And we made the detailing a more robust Gothic than the church's. We looked to Anglican churches in the country for inspiration."

The hall's walls are defined by a picture rail.

Below it, the walls are plaster and feature stone detailing that is similar to Frohman's church; above it, they are clad in gypsum board, a cost-containing choice. The ceiling is clad in acoustic tiles. "They are blue, the church's color," Windham says. "They introduce color, levity and kill sound."

The flooring is linoleum tile in two different colors of brown. "It absorbs sound, it's easy to keep clean and it's inexpensive," Windham says, adding that the ceiling trusses are made of economical wood that is stained dark to create the illusion of more luxurious lumber.

The nave on the south end of Gerhart Hall features a pictorial tile mural in blue and white and an ornamental gold relic that belong to the church. The paneling on the lower portion of the wall hides a sliding screen for visual presentations.

The Gothic-style light fixtures, which resemble those in the church, are from catalogs

that specialize in historical reproductions.

Windham says the greatest challenge of the project was not the architectural design but the geography.

"Our office is a six- to eight-hour drive from Abilene," he says. "So we couldn't be on the site all the time—we came and went. But it was a near storybook project. The general contractor did a fabulous job, and the people at the church were open-minded and dedicated to doing something great that will last for generations."

When Gerhart Hall opened in 2017, Windham was asked to give a celebratory speech.

"The people in the parish couldn't believe the hall was real—they were stunned," he says. "They couldn't believe it was going to be part of the community. Most of the work our firm does is residential. What was so rewarding about this was the feedback we got that shows just how beneficial architecture is to people's daily lives."

KEY SUPPLIERS

ARCHITECT Curtis & Windham GENERAL CONTRACTOR

The Crowe Group

EXTERIOR STONE Kelley Masonry

STRUCTURAL ENGINEERS Matrix Structural Engineering MEP ENGINEERS

Bradshaw & Associates

LANDSCAPE CONTRACTOR Mankin & Sons Gardens



PROJECT Chapel of the Ozarks

ARCHITECT Historical Concepts, a traditional architecture and planning firm

Standing in contrast to the brick Gothic arch above it, the shed roof at the entrance of the chapel was designed as a simple protective cover for the paired entry doors, softening and adding depth to the facade.

charming chapel

Reverence for a lofty location produces an enviable vestry.

BY GORDON H. BOCK | PHOTOGRAPHY BY ERIC PIASECKI

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ABOVE Perched on the edge of a bluff, with views of lush rolling terrain and the lake in the distance, the stone chapel appears to grow naturally from the landscape.

LEFT An early study of the chapel interior illustrates the traditional hammer trusses, designed to highlight the internal volume and visually frame the view beyond. Corner fireplaces frame the wall of mitered plate glass windows in the apse, with its panorama views in the distance.

hat enables a religious building type to serve a lay mission while delivering a spiritual connection through form, materials, and site? An intimate project offers some inspirations.

The Chapel of the Ozarks is a prominent part of Top of the Rock, adjacent to Big Cedar Lodge in Ridgedale, Missouri, in more ways than one. "The client, who owns the whole resort, really wanted a chapel," explains Terry Pylant, principal at Historical Concepts, a traditional architecture and planning firm in Atlanta, "both to have a space for small events and weddings, and to create an iconic focal point that would clearly set the tone for the property." To do so, the architects, who have worked with the client for over 10 years on various projects, drew on the local context of the Ozark Mountains, small, rural churches, and historic National Parks structures to evoke a feel that the Chapel had been on the site for generations.

Just positioning the Chapel proved to be among the most exacting steps in establishing that feel. "On one side are trees that we wanted to be tucked against; on the other are buildings that we didn't want to be close to, so the siting was really about finding a comfortable spot between those two." He adds that the client, being very hands-on, directed a lot of the process. "We actually created a full-size mock-up of the floor plan and strung up lines for walls to get an idea the scale and views." Most critical was the orientation. "The focus of the Chapel is the incredible view through the plate glass apse to Table Rock Lake below and the 'V' in the hills beyond," explains Pylant. "We staked it, we moved it three degrees one direction, then pulled it back, and then we pushed it forward of the edge of the hill, so the siting was quite involved."

What isn't at first apparent, though, is how all that positioning for a sublime view brought the building to a precipitous pulpit. "Though it's far more extreme than we ever imagined, the way the Chapel is perched on the side of a hill actually worked out well because it allows a lot more opportunity for program." As Pylant explains, because the foundation is quite extensive, there are two sub-levels below the sanctuary. "One level immediately below with 20-ft. high ceilings is a natural for wedding receptions, and below that there's a mezzanine level that can be used for bride prep. Then a small space on the ground floor makes a good grooms' room."

What's more, building a humble 'Chapel in the Pines' of 200 or so seats required more than standard chapter-andverse construction to structurally design a building on the side of a hill. Even with a massive foundation below ground, there was a need to support walls that rise over 20 ft. with a soaring bell tower. "We wanted wide windows to really let in light," recalls Pylant, "but that doesn't leave a lot of 'meat' for structure, so the Chapel and bell tower have a steel frame." He notes that the walls themselves are actually 2x12 framing plus some laminate veneer lumber in order to have a suitable wall thickness structurally and to accommodate the depth of triple-hung windows. The battered exterior buttresses, made of the same mix of uncoursed local limestone and sandstone as the walls, are functional as well as architectural, helping to withstand the wall loads. "You can imagine, with those being below grade as much as 40 ft., they were quite a feat to pour."

He adds that the stone construction was a big part of having the Chapel appear to grow from the land. "If we had clad it in clapboard, it would need to be a lighter color, and we felt that wouldn't fit the context of the property."

Pylant points out that the Chapel uses pretty conventional forced heating and air, so those units are hidden in vaults that leave no equipment visible. "One of the challenges with a building that's exposed on all four sides is there's no place to put air handlers and other outdoor units."

The Chapel is meant to be a focal point as visitors enter the resort, and here the bell tower plays an important role. "While the nearby structures are large in overall footprint, their height is not as great, so the Chapel with its tower really stands out."

Like the apse, the side sanctuary windows are not ornamental but clear glass. "Just multi-pane," he explains, "but they are actually operable, custom-made, triple-hung sash that go all the way to the floor," and, in fact, counterbalanced with traditional weight-and-pulley systems.

Inside, the sanctuary treatments are deceptively uncomplicated and rustic, but compelling. A roof supported by heart-pine hammer beams flows down to walls of honey-colored cypress boards, and heart-pine floors hold pews also of heart pine but with only a wax finish. "You want the windows and window trim to speak as the design," says Pylant, "and the walls, being a rich, warm material, to fall into the background." Taking cues from small, rural churches, there's an entry narthex and a choir loft overlooking the sanctuary. They even sloped the sanctuary floor to permit views out the apse from as far away as the rear of the Chapel. "It's very simple; not overly ornate," he adds, "which is important because, in a building of this small scale, the temptation is to have too much going on."

GORDON H. BOCK is an architectural historian, instructor with the National Preservation Institute (www.npi.org), and speaker through www.gordonbock.com. PROJECT Private Chapel ARCHITECT Eric Inman Daum Architect, Eric Inman LANDSCAPE DESIGNER Brian Frazier Design

TEMPLE OF TIME

Plans for a family mausoleum evolve to include a lower-level crypt, transforming the structure into a place for both introspective contemplation and life-celebrating gatherings.

BY KILEY JACQUES | PHOTOGRAPHY BY JARED KUZIA

A view south across the sunken lawn to the mausoleum: the rusticated granite piers, designed by Daum, are capped by the severe pediments with acroteria common to classical Greek funeral stellae, and support granite volute kraters symbolic of both the celebratory mixing of wine and cremation.



rchitect Eric Daum is modest about his work on this private mausoleum in Norwood, Massachusetts, preferring instead to speak of his sources of inspiration. Completed in 2018, the Neo-classical structure emphasizes the austerity of the Greek Revival period but its references are many. "There are a number of formal precedents for the overall design concept of the pavilion," explains the principal of Eric Inman Daum Architect, noting that the Doric order is based on the Parthenon, and the lower-level crypt recalls the Temple of Hera. "One of the most prominent," he adds, "was the Württemberg Mausoleum outside Stuttgart, Germany, which was designed in 1819 by Italian architect Giovanni Salucci." There are also a few less formal precedents, including the Custom House in Boston and the First Parish Church in Quincy.

For context, Daum notes his longterm association with the property and client. He has contributed to the site's architecture for more than a decade. Most of that work was "in a Georgian direction"—meaning a lot of red brick with white trim. Eventually, a Greek Revival– style guesthouse was added, opposite which the new pavilion now sits. "Since we had already broken a stylistic reference with the guesthouse," Daum says, "I felt that it was okay to do another Greek Revival–influenced building. I wanted something that felt a little more somber, a little less celebratory—something with a massive, earthy presence."

That somber quality comes through, and is owed, in part, to the order's robust proportions and to the masonry itself, which Daum chose for its similarity to Quincy granite. He points to the historic use of that stone for New England's civic buildings, appreciating its dark, dense, and finely grained nature. However, because Quincy granite is no longer quarried, Daum had to find a proximate match. A recommendation from stone expert Kenneth Castellucci led him to the Coldspring granite on which he ultimately settled.

Originally conceived to be an unconditioned single-story mausoleum, the pavilion's design evolved to include a lower-level crypt. And because the client expressed interest in using the building on a year-round basis, Daum needed to design for HVAC systems and plumbing. "In order to accommodate those things, we had to increase the overall size of the building while keeping the same look," the architect explains. "So everything had to be scaled up. It was a design of response. It was a concept that got developed and then reimagined, and then further redeveloped."

Along the way, the crypt became a series of belowground tombs designed to have granite covers, which were indeed fabricated but are currently in storage. The client wanted to be able to use the lower level as a casino-like space, hence the posh Venetian fabrics and richly upholstered tombs. (These added flourishes were not of Daum's design.) "My approach to the crypt was for it to have the weight of what was happening above, as well as make a temporal shift backward in time," he explains. "So the forms of the Doric order used below are more abstracted and primitive. They reference the ruins of the Temple of Hera in Sicily—the idea being that it is an earlier iteration, and the building above was built to be more modern."

In addition to changing priorities, Daum was contending with residential building code restrictions. "It was a balancing act between getting the appropriate proportioning of the orders and getting the appropriate proportioning of the site, as well as getting the dome's height right while dealing with the code height limitations," he says, indicating the many challenges that were surmounted.

A CLOSER LOOK AT THE ARCHITECTURE

According to Daum, this 2019 Bulfinch Award-winning project is a contemporary classical design reflecting many aspects of the Neo-classical movement of the late 18th and 19th centuries. Winning in the ecclesiastic category, the structure references Robert Adam's Bowood Mausoleum in Wiltshire, England—a dome suspended above a square plan on flat pendentives. With freestanding columns supporting a pediment, the north façade is a true temple front. The east and west façades do not project as far, and they have square piers, wall extrusions, and bronze windows between them—the grilles of which are a Roman motif from antiquity. Despite the plan being Greek Revival–inspired, Daum notes that the domed central block would not have been seen in Greek architecture, the dome having been introduced to the Classical tradition by the Romans.

Though the main volume of the Württemberg Chapel-again, a primary reference-is circular in plan, it is unique for its four projecting porches, the cornices of which continue around the entire building, thereby creating a vertical surface for the pediments to terminate against, which is what Daum did here. On the Greek Doric order, he bestowed a squat, muscular appearance. And, in the vein of the Temple of Nemesis at Rhamnus, the unfluted column shafts-turned from a single block of granite-include a thin groove around the circumference (called necking), which separates the shaft from the capital. The remnant above the necking is distinctly fluted beneath the echinus of the capital.

The dome and roofs of the four wings are covered in standing-seam copper sheeting; the remaining portions at the corners feature flat-seam copper. Entry is through bronze doors set in a granite surround. The vestibule door jambs are notable for the way they slope



ABOVE The floor pattern, based upon a design in Schinkel's Glienicke Casino in Potsdam, and crafted by Kenneth Castellucci & Associates Inc., features 7 species of Italian and Spanish marbles. The Verdi Alpi columns in the interior were a nod to Daum's employer after graduate school, American Classicist John Blatteau, a founder of Classical America who had placed green Doric columns in a Board Room for Rigg's Bank in Washington, DC.



ABOVE Daum's design included the coffered dome symbolizing the 24 hours of the day, fabricated by Foster Reeve & Associates, and the laylight, fabricated by Wiemann Metalcraft depicting a setting sun in an evening sky.



ABOVE The Columbarium fabricated in Cold Spring Charcoal Granite with Portoro Black and Gold base, frieze and plaques, and Verdi Alpi Ionic pilasters with Bianco Carrara capitals and bases, has space for six urns. The form recalls funerary stellae from Greek Antiquity. The inscriptions were selected by the owner.



PLASTER DOME

The dome created by Foster Reeve from Eric Daum's precise drawing represented a multifaceted challenge the team. Geometry, engineering, coordination, and, of course, a little sculpture. Beginning with site measurements, the team maximized the size of the dome for its relationship to the oculus above and to the as built concrete square at the bottom. From there they scaled the design to most closely match the architect's intent. Selection of the ornament involved architect review of samples from our ornament library to choose the style from which to sculpt the precisely scaled elements. The egg and dart was carefully modulated to create perfect corners on the various panel sides. The installation of precast ceilings goes surprisingly quickly, if all the planning and shop work are properly executed. There is no framing to be built beforehand, and all coordination with adjacent or embedded elements is carefully mapped out in the shop drawings. Blocking and bracing are provided as needed during the installation, with location and design of the seams planned for ease of finishing. Delivering a finished product of this complexity, and having it quickly transform a raw interior into a finished space was especially rewarding to the team.

inward—a common Grecian motif, Daum explains, that recalls the Bronze Age Treasury of Atreus, also named Tomb of Agamemnon.

Inside, the sanctuary is square in plan with a pier in each corner, and the Greek Doric order continues. Six columns, carved from dark green Verde Alpi marble, are fluted for their entire length; their high polish and deep veining add drama to the space. Twenty-four bays feature in the coffered dome-symbolizing the hours of the day-each of which is framed by egg-and-dart moldings, as are the coffered ceilings of the three wings. At the apex of the dome is a stained-glass daylight in a compass pattern meant to symbolize the setting sun. Disrupting the somber granite, the polychromed marble radial mosaic floor-cut and carved in Italy-was inspired by a floor in Karl Friedrich Schinkel's Glienecke Casino. The use of a Greek Key in Nero Marquina and Giallo Siena marble was meant to tie the floor to the austere Greek Revival scheme.

Below the sanctuary is the crypt. Daum explains that the four central columns are in the early Doric style found in the former Greek colonies in Sicily at Paestum. They were given a squatter proportion than those on the upper story to suggest the weight of mourning.

A BIT ABOUT THE GARDENS

The domed temple sits at the end of a sunken lawn in the southwest corner of the residential estate. "The lawn is meant to be a place of contemplation," says Brian Frazier, whose firm, Brian Frazier Design, was responsible for the landscape and gardens surrounding the pavilion (and beyond—he, too, has been working on the property for many years).

To visually tie together the garden piers, walks, and paving to the building, Frazier used the same granite. For structure, and to draw the eye toward the pavilion, he designed an allée of London plane trees, which were chosen for the bark's texture and because they can withstand the heavy pruning that will be necessary to keep them in scale and away from the building. Hydrangea, Russian sage, and "Knockout" series roses create the understory. Behind the pavilion, Frazier planted a hedgerow of columnar Hornbeam trees, which he specified for their brilliant fall color.

A beguiling pebble terrace sits directly on axis, and is made of black and white Mexican beach stones that were handpicked for size. On the whole, the property's landscape is linear in design—meant to guide visitors with clear site lines. The pebbled terrace provides relief with its curvilinear, freeform shape. Each stone was laid by hand to

KEY SUPPLIERS

ARCHITECTURE

Eric Inman Daum Architect and former partner of Merrimack Design Architects

BUILDER KVC Builders

LANDSCAPE DESIGNER Brian Frazier Design

LANDSCAPE CONSTRUCTION R.P. Marzilli & Company

INTERIOR DESIGN Anthony Catalfano Interiors

MILLWORK South Shore Millwork

PLASTER Foster Reeve

NATURAL STONE WORK Kenneth Castellucci & Associates, Inc.

GRANITE Cold Spring Granite

BRONZE Wiemann Metalcraft

BRONZE DOORS & WINDOWS Tischler Und Sohn

HARDWARE

Maison Vervloet WOOD FINISHING Wayne Towle Master Finishing and Restoration TECH INTEGRATION

Maverick Integration

create a series of curves that reverse in on each other, and "garden rooms" hedged in eight-foot-tall yews surround the stonework. "Given the position of the garden pavilion, and the other buildings on the site—the main house and two carriage houses—and the way they relate to each other, I didn't want to just do a series of lawns," Frazier says of his intent. "I wanted to create some mystery to draw people through the landscape to make discoveries. That was the point of the garden rooms surrounding the pebble terrace."

Inspired by a terrace at Dumbarton Oaks, it is arguably the landscape's pièce de résistance. Regarding it, Frazier adds: "I tried to add some texture that would be unlike anything people had ever seen. In general, I'm trying to add things that are out of the ordinary because it is not an ordinary place and not an ordinary client. So I decorated the ground in a tapestry, like a rug in a room."

Taken together, the domed pavilion and formal gardens could be said to symbolize the circle of life and death made all the more beautiful by the myriad references to antiquity.

PROJECT The Ramble Hotel ARCHITECT Johnson Nathan Strohe

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attitude of authenticity

The Ramble Hotel embodies informed design made manifest by visionaries and craftsmen committed to building a legacy.

rom a seat inside The Ramble Hotel lobby, Ryan Diggins looks out toward a series of reclaimed shipping containers. They contribute to the artsy industrial vibe surrounding his venture at 25th and Larimer Streets. The container cluster includes Work & Class, Topo Designs, and Cart-Driver—all of which are Diggins's doing. And, as of May 2018, the Denver-based real estate developer and partner at Gravitas Development Group has added this bespoke hotel to his portfolio.

Located in the city's River North Art District (RiNo), The Ramble is both a nod to a former

BY KILEY JACQUES

era and a reaction to the divisive state of architecture and design in Denver today. Working with architecture firm Johnson Nathan Strohe, Diggins was determined to not only fill the need for a hotel but also to distinguish the neighborhood. "This is a warehouse district full of a lot of beautiful masonry that we wanted to honor ... and elevate," he says, noting that the project is his response to the many hastily constructed buildings going up with alarming regularity the majority of which were designed without regard for the surrounding neighborhood and cultural context. It was also important to him that RiNo's first hotel be the work of a local

company.

Capitalizing on the district's artistic roots and entrepreneurial spirit, Diggins developed his vision for an upscale, early 20th-centuryinspired warehouse featuring vernacular brick and timber. The challenge, he notes, was to create something authentic yet new and fresh without getting into "the realm of faux" that characterizes Disney World. "For me, it all started with the quality of materials," he explains. "None of it was meant to be a veneer. We worked with hand-cut brick and fourthgeneration masons who cared—who had time to care. It was important to us to work with

The hand cut brick used to build The Ramble is a rich saturated orange hue, which pays homage to Denver's industrial warehouse palettes. Imperfect corners and recessed grout lines bring a human element to the project.

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Paned windows, containing a thin profile—reminiscent of classic steel framed windows—are used throughout the property. All windows are fully transparent, making the building interior welcoming and easily visible from the outside, when curtains are not drawn.

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TANK





ABOVE All guest rooms include at least one antique rug, all of which were handpicked by the hotel's founder to add warmth, color, and a residential feel to each room.

OPPOSITE Fun, lively, and informal, Death & Co's The Garden is a gathering place for sunny afternoons and warm evenings. contractors who viewed this as a legacy building. Anyone who was involved had to understand the statement opportunity we could make with this building."

Though new, The Ramble Hotel appears to be a restored historic building. That illusion has much to do with its detailing. The brick coursing of the parapets, for example, includes ten depth changes. Diggins explains: "We tasked our architects with creating a lot of different reliefs and coursing models. There are two rows of brick coursing above all of the windows, which create a visual separation between floors. There's a slab bump-out on the third floor, which was difficult to construct, but we wanted a third floor that extends out to enable more depth as well as an additional row of coursing on the third floor." He also points to the recessed grout line as

instrumental to the building's feel. The raked joint carves out a bit of the grout so the eye can pick up each individual brick as opposed to reading it as a vast flat wall. The brick itself was hand cut so it has imperfections, which Diggins believes triggers something in people for him, there's "a human scale" to the masonry.

The brick color was key, too. Many of Denver's old warehouses have a deeply saturated orange hue stemming from the Central Platte Valley clay. Diggins says it took time to find the right material and that contemporary brick, with its sheenproducing appliqué, wouldn't do because of the modern look it creates. "Once we found that brick, it brought it all home," the developer notes, adding that his team probably spent more money on detailing than was necessary but that the effect—even on the average passerby who doesn't care about brick coursing details—is profound and informs visitors' expectations of the building. "I wanted this building to make people feel a certain way from four blocks away," Diggins explains. He also envisioned the structure aging into one of the top hotels in the country. So, as he puts it: "You can't start by skimping."

Not surprisingly, considerable thought and time were devoted to the factory-pane windows and glazing system—a critical detail in honoring warehouse-style construction. Traditionally, they would have been all-steel with a thin profile. Here, that was cost-prohibitive, so they went with steel replica frames and 10-foot dark-gray reproduction windows and doors from St. Cloud Window. "I think this would have really



fallen down if you looked up at the building and saw two-and-a-half-inch aluminum frames," Diggins speculates. "We really tried to pick apart the details that would make this building authentic."

Among those details are the custom steel column wraps cast in decorative moulds at the entry, which are intended to imitate the cast-iron columns seen on early 1900s buildings. "It took a long time to find the perfect articulation and shadow line," Diggins notes. "We studied a lot of old buildings around Denver to determine the right thickness."

The 50-room hotel houses Death & Co., a cocktail lounge with café bar, as well as Suite 6A, a private bar with a distilled drinks tasting menu, and The Garden, a courtyard bar. It is also home to Vauxhall—a music venue, theater, and bar—and Super Mega Bien, a pan-Latin restaurant by James Beard-nominated chef Dana Rodriguez. Accordingly, the interiors needed to fit a tall bill. The warehouse structures after which the hotel was modeled were traditionally spartan inside; here, the idea was to take vernacular cues and infuse them with elegance. Diggins worked with Avenue Interior Design to re-create some of the opulence and maximalism found in boutique Parisian hotels. "It's a juxtaposition of hard surfaces, reclaimed materials, unpolished concrete columns, and handmolded brick, against ornate chandeliers and velvet couches," he explains, adding that the exterior is rather masculine while the softer, more feminine approach inside presents an unexpected twist on the gritty industrial aesthetic.

One of the more commented on interior elements are the 12-foot-tall custom

steel panels with chicken wire glass (salvaged from New York's Rockefeller Building). They were fabricated and mounted on casters as a solution to the problem of how to transform the morning coffee bar into a cocktail service bar come evening. "We needed to find a way to creatively transition the space because it is tough to do both well," Diggins explains. When stacked in the morning, the panels appear to be a design statement; at night, they fit onto an imbedded track in the floor and slide to close off the space, creating a zone where staff can go back and forth with drinks from the bar. "It's something we were really struggling with and it became one of the signature design details," says Diggins. "It's a classic example of necessity spawning creativity."

Diggins predicts that many of the

buildings going up in Denver right now will have a 25-year useful lifespan. He foresees The Ramble surpassing that mark by a long shot. "We sought to create a 100-year building," he says. "The environment was telling me that if we invest in materials and [skilled workmanship], there will be a return on quality." He read the situation correctly. First-year financials met what was forecast for year five; and the investors were stabilized three months after opening. Arguably, the numbers are a testament to the value of a well-executed design.

"It's an art and a science creating something that feels like it has been here and that elicits a visceral reaction for the right reasons," Diggins says in closing. Judging from the uproarious buzz surrounding the place, The Ramble strikes that very chord.

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REPAIRING HISTORIC WOODEN WINDOWS: WHAT ARCHITECTS NEED TO KNOW

1 AIA Health/Safety/Welfare Learning Unit

Speaker:

Brent Hull, Hull Millwork, Fort Worth, TX; craftsman, author and educator.

While we usually take in the view of a whole building before, we enter, windows are often the first architectural element which we observe at a distance, and like the eyes of a person, they often entice us to look more closely. They are very often important character-defining features of historic buildings. When working on historic preservation projects, they present challenges of energy efficiency, lead removal and maintenance planning. Their loss can be a deal-breaker if historic tax credits are part of the funding mix for your client's projects.

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- Explain and specify best practices for installation, maintenance and repairs.
- Plan for sound operation in high traffic areas particularly when working in historic residential, commercial and institutional settings.

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Speakers:

Ryan Mulkeen, Director of Marketing and Communications, Kuiken Brothers Company, Inc., Midland Park, NJ and Phillip J. Dodd, Bespoke Residential Design, Greenwich, CT

This session will demonstrate through case studies, shop drawings and images, how stock mouldings developed with profiles and geometry drawn from classical and neoclassical architectural elements and rooms can meet the needs of discerning clients for traditionally inspired residential and commercial interiors. An emphasis will be placed on Vitruvius and his goals of firmness, commodity and delight for all architecture.

LEARNING OBJECTIVES

- Assess existing rooms and design new rooms with the geometry of classical and neoclassical ideals in minds.
- Compare and contrast period moldings with contemporary replications and period-inspired alternatives.
- Consider the geometric proportions and relationships between elements such as crown moldings, wainscots, base board, and doorways and mantels and entire rooms.
- Select materials, including wood species and composites, such as medium density fiberboard for use in projects. installations by following recommended best practices.



TUESDAY, DECEMBER 3, 2019 2:00 PM EST (THEN WILL GO TO ON DEMAND)

REPAIRING HISTORIC WOODEN WINDOWS: WHAT ARCHITECTS NEED TO KNOW

1 AIA Health/Safety/Welfare Learning Unit

Speaker:

Brent Hull, Hull Millwork, Fort Worth, TX; craftsman, author and educator.

While we usually take in the view of a whole building before, we enter, windows are often the first architectural element which we observe at a distance, and like the eyes of a person, they often entice us to look more closely. They are very often important character-defining features of historic buildings. When working on historic preservation projects, they present challenges of energy efficiency, lead removal and maintenance planning. Their loss can be a deal-breaker if historic tax credits are part of the funding mix for your client's projects.

The craft of building, installing and maintaining good wooden windows is an important process for any building professional working on historic buildings or building new traditionally inspired buildings.

LEARNING OBJECTIVES

- Review the stylistic compositions and best craft practices that built traditional wooden windows.
- Discuss craft detailing, storm windows and finishes that expand the life of windows in harsh climates.
- Explain and specify best practices for installation, maintenance and repairs.
- Plan for sound operation in high traffic areas particularly when working in historic residential, commercial and institutional settings.

ON DEMAND

WORKING WITH CUSTOM CABINET MAKERS: MODERN KITCHENS IN TRADITIONAL SETTINGS

1 AIA Health/Safety/Welfare Learning Unit

Speaker: Brian Stowell, President and CEO, Crown Point Cabinetry, Claremont, NH



ON DEMAND AN INTRODUCTION TO ORNAMENTAL METALS, DISTANCE EDUCATION VERSION 1 AIA HSW Learning Unit

> **Speaker:** Douglas Bracken, Wiemann Metalcraft



ON DEMAND PAST, PRESENT AND FUTURE USES OF EXTERIOR SHUTTERS 1 AIA HSW Learning Unit

Speaker: Harry Rembert, Vice President, New Horizon Shutters





ON DEMAND THE PRESERVATION-MINDED HOMEOWNER IN THE 21ST CENTURY 1 AIA Learning Unit Speaker: Scott Intagliata, Chief Marketing Officer, The Unico System System



ON DEMAND TERRA COTTA TILE: COLOR SELECTION AND MATCHING 1 AIA HSW Learning Unit

> **Speaker:** Alicia Cordle, Ceramic Engineer, Ludowici





DESIGNING SECURITY AND SWING: LOCKS, HINGES AND THEIR APPLICATIONS *1 AIA HSW Learning Unit; .1 IDCEC CEU*

> **Speaker:** Betsy O'Day, Business Development Manager, Nostalgic Warehouse



ON DEMAND STORM WINDOWS 2.0: FORM, FUNCTION AND FIT 1 AIA HSW Learning Unit

Speaker: David Martin, President, Allied Window



ON DEMAND TRADITIONAL DOORS: A MASTER CLASS ON CRAFT, FORM, AND FUNCTION 1.25 AIA HSW Learning Unit

Speaker: Brent Hull, Hull Historical, Inc.



FOR CLASS DESCRIPTIONS, MORE INFORMATION OR TO REGISTER, VISIT TRADITIONAL BUILDING SHOW.COM

More webinar topics to be announced.



AIA Continuing Education Provider





The Palladio Awards program is produced by Clem Labine's **Traditional Building**. Presented by The Traditional Building Conference, the award is named in honor of Andrea Palladio, the Renaissance architect who created modern architecture for his time while drawing on past models for inspiration.



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Honoring outstanding achievement in traditional design, The Palladio Awards program recognizes both individual designers and design teams whose work enhances the beauty and humane qualities of the built environment, through creative interpretation or adaptation of design principles, developed through 2,500 years of the Western architectural tradition. The Palladio Awards are the first and only national awards program for residential and commercial/institutional projects which demonstrate excellence in traditional design.

SUBMISSION DEADLINE: JANUARY 10, 2020

PROJECTS MUST HAVE BEEN COMPLETED BETWEEN NOVEMBER 2014 AND NOVEMBER 2019.

AWARDS WILL BE CONSIDERED IN THE FOLLOWING CATEGORIES

COMMERCIAL, INSTITUTIONAL & PUBLIC ARCHITECTURE:

- Restoration & Renovation
- Adaptive Reuse and/or Sympathetic Additions
- New Design & Construction less than 30,000 sq.ft.
- New Design & Construction more than 30,000 sq.ft.
- Public Spaces: Parks, Plazas, Streetscapes, Gardens
- Craftsmanship
- Interior Design

RESIDENTIAL ARCHITECTURE:

- Restoration & Renovation
- Adaptive Reuse and/or Sympathetic Additions
- New Design & Construction less than 5,000 sq.ft.
- New Design & Construction more than 5,000 sq.ft.
- Exterior Spaces: Gardens & Landscapes
- Residential Multi-Unit
- Craftsmanship
- Interior Design

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