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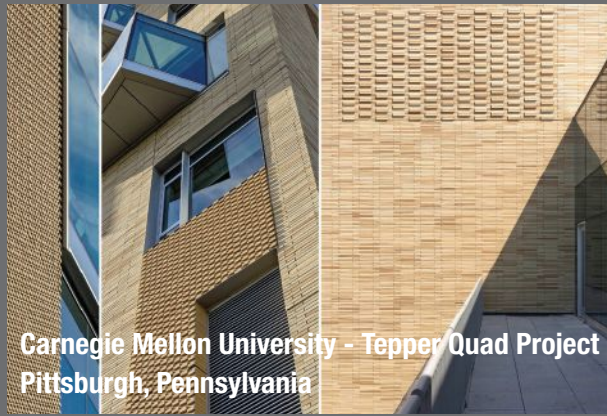
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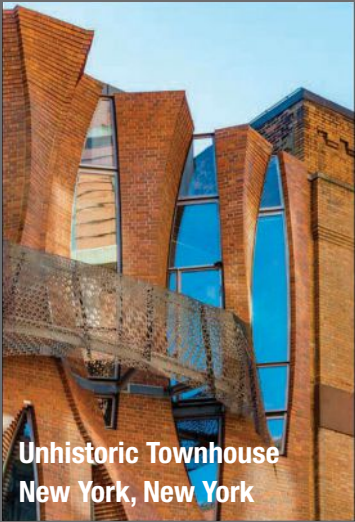
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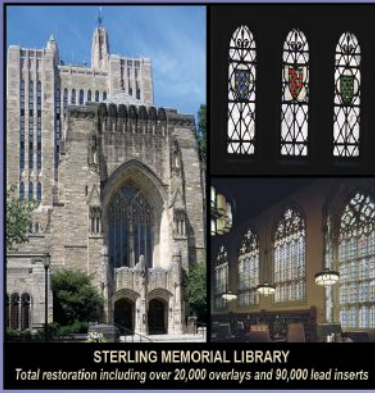
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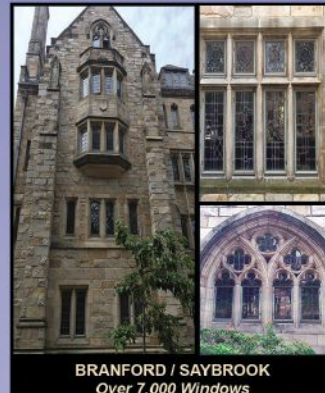
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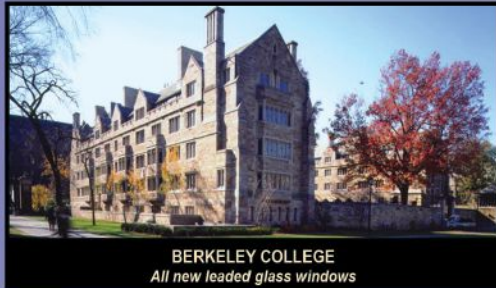
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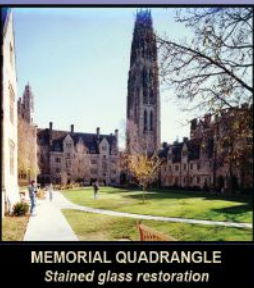
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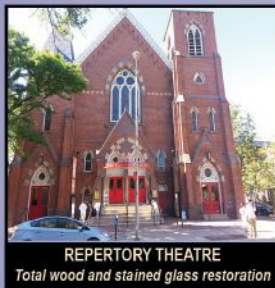
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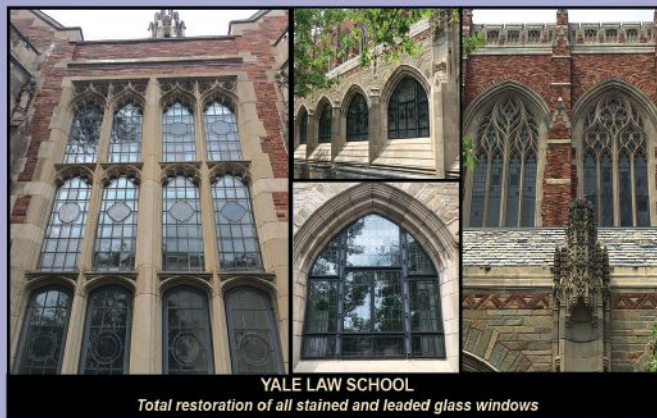


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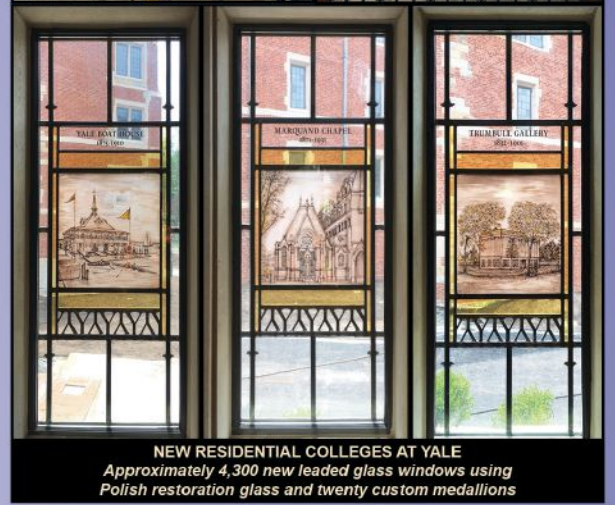


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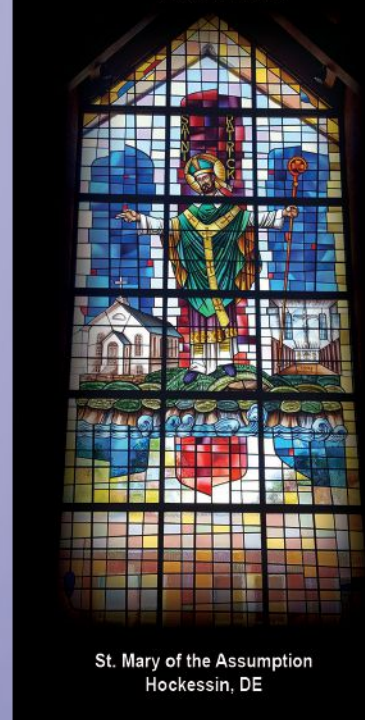
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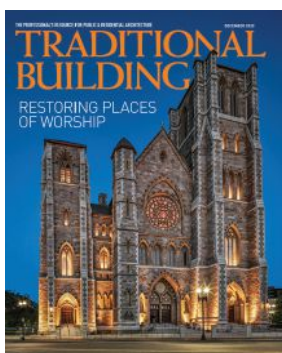
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An evening shot of the Cathedral of the Holy Cross in Boston. More on p.38.

Photo by by Robert Benson

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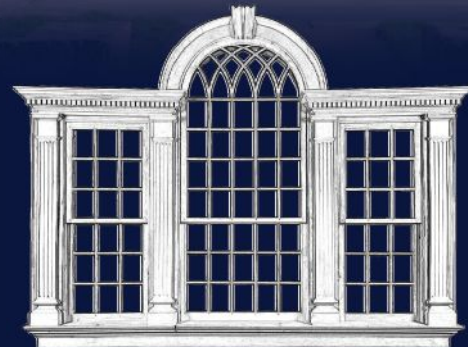
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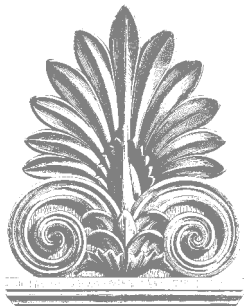
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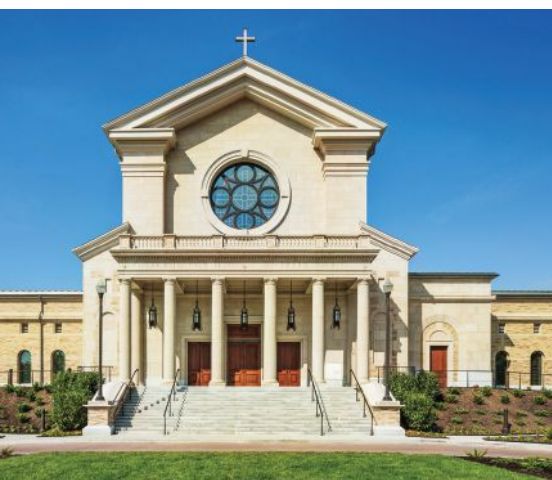
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The Palladio Awards program is produced by Clem Labine's **Traditional Building**. Presented by The Traditional Building Conference, the award is named in honor of Andrea Palladio, the Renaissance architect who created modern architecture for his time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



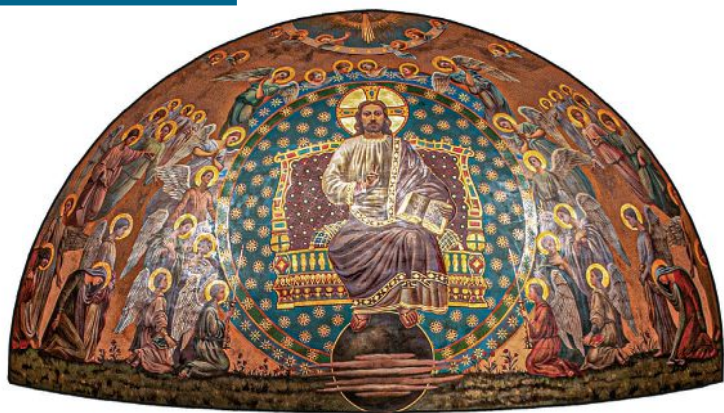
For more information, or to submit your entry, go to www.palladioawards.com



THE STATUES

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INDUSTRY NEWS



ST. RAYMOND PARISH, BRONX, NY – APSE

Seated Christ “The Teacher in Heaven” – enthroned – surrounded by angels. In this case the apse mural is the original from 1908. Originally the walls below the windows had a painting of heavy drapery hanging in Romanesque style from a series of bosses.

RAMBUSCH LIGHTING CELEBRATES 120-PLUS YEARS IN THE MAKING

Learn the history of Frode Rambusch, master decorator and founder.

Though an ordinary student, Frode Rambusch showed a talent for drawing at an early age. In the fall of 1875, he was accepted at the Royal Academy in Copenhagen, where he studied drawing and interior decoration for five years. At the same time, he was accepted as an apprentice by Copenhagen’s Master Painter, Markussen, and also worked in the drafting rooms of architect, C. V. Nielsen, working out on jobs for six months of the year during the good weather and the other six months in school and doing drafting in poor weather.

Having finished his apprenticeship and schooling in 1881, he began his journeyman’s travels and worked Dresden, Berlin, Paris, Zurich, Munich, and Vienna, where he usually enrolled in the local art schools, and joined the local Scandinavian social clubs. Although he found himself short on food many winters, he had a saying: “Knowledge is more valuable in a foreign land than gold.”

One winter, he and a colleague had a job painting approximately a thousand door panels in a hotel in Lucerne, Switzerland, using a delicate fading of blue on the perimeter of the door panel to pink in the center—a very special decorative technique. He would say, “When you have a special project to execute, first do it as perfectly as possible, and then after develop the ability to do it as fast as possible.”

When he became engaged to Valborg Olsen, the sister of one of his workmates in Vienna, they decided to emigrate to the United States where he became involved in various businesses—the most notable was the redecoration of the Cincinnati German Opera House about 1896. Later, his brother-in-law joined him to collaborate.

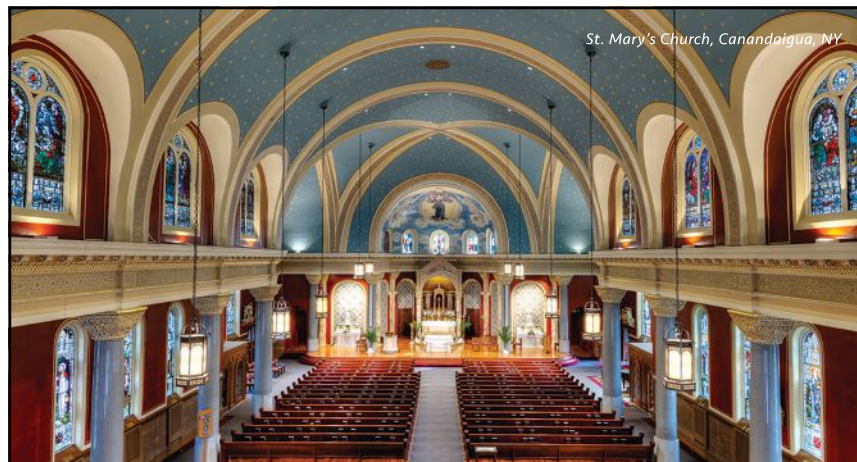
During the early days of Frode’s firm, gas light was losing out as an illumination source to electric lighting. The tungsten filament lamp replaced the carbon filament around 1904. This brought about much brighter lamps which competed with Frode’s decorations. After unsuccessfully trying to advise his clients on types of lighting, he started making his own units in 1908 to protect his murals and show them in the best light. This part of the firm has grown into the largest part of Rambusch today.

Frode’s two sons followed him into the firm, both working as apprentice painter-decorators in the summer. Harold went to Pratt and trained as an interior designer. Viggo went to Columbia’s School of Architecture and graduated in Architecture. Viggo’s son, the author, received his Master’s in Art and Architecture after his military service in Europe. He had taken his Army discharge over there and, as a union member, was able to obtain work as a painter-decorator in Copenhagen and London. His twin sons—Edwin and Martin—4th generation, received their Masters respectively from Parsons School of Design in Illumination and from Columbia’s Graduate School of Architecture, Planning and Preservation. They now own and run the 120-year-plus firm.

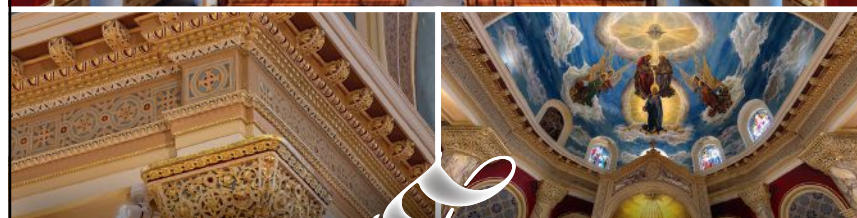
The painter-decorator skills and traditions died out under the pressure of the “modernist” style in the 1960s and ‘70s when ‘decoration’ was painted out-white. The skills of marbling, graining, gilding, glazing, stenciling, poicing, etc. were not appreciated. Today they again are practiced by scenic artists who work in the theatre and by restoration specialists such as are at work here at Holy Family. Frode passed away in October 1924 at 65 years of age, but his work lives on, now being restored in a series of projects here in the Northeast.

To read the history in its entirety, go to TraditionalBuilding.com/features/Frode-Rambusch.

—Viggo Rambusch



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Lovell created this glamorous owner's suite at the legendary St. Regis in Manhattan to feature a fantastical interior landscape in eglomise glass panels with hand-sketched ink renderings. She added a black lacquered portal to frame the approach to the monumental painting by Kara Walker.

THE AESTHETE'S TRIPLE THREAT



SUZANNE LOVELL

Traditional Building sits down with architect and interior designer Suzanne Lovell.

Suzanne Lovell is a bonafide triple threat. An award-winning architect, interior designer, and part-time philosopher, Suzanne Lovell runs her eponymous firm creating couture residences that lean into contemporary art. From Gulf Coast penthouses and Lincoln Park homes to Manhattan pieds-à-terre, the common denominator is always art.

Lovell, with Fine Art Director Kristin Murphy Romanski, has worked hard cultivating relationships with art galleries, antique dealers and artisan furniture designers. They've put the time in at art exhibitions, shows, and galleries getting

to know the artists and their work. Each piece that Lovell brings into a residence becomes part of an ongoing conversation on interior architecture, design, and the experience of fine art. Paintings by Cecily Brown and Kara Walker can be interwoven with traditional tansus and custom-made furniture by artisans like Joseph Walsh, all the while striking up a conversation on materials, perspective, lighting and, of course, details.

"What's the story they want to tell, and what's the dialog that we're going to have inside the circulation of that piece of architecture? You are building a story

for the client," Lovell explains. "Our Clients are seeing, "Oh, there are all sorts of ways for me to tell my story."

Storytelling comes in many shapes and styles for Lovell, who cherishes the blank palette of contemporary architecture. "The world has turned into so many different approaches to architecture, and there's no specific container that all of architecture is fitting into: it's all individualized. Architects need to be responsible for the interior architecture of a building as well as the exterior. This is the professional responsibility of the architect."

Eric Plisecki/OTTO photo

Billy Cunningham photo



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Suzanne Lovell Inc. completely renovated this 1923 apartment by leading Chicago architect Howard von Doren Shaw. Original details have been either flawlessly restored or painstakingly recreated to honor the elegance of the interior spaces, while updating the residence to twenty-first century standards.



Eric Plasecki/OTTO photo

Interior design, fine art, and architecture is the trifecta, and Lovell attributes intense and contemporaneous focus in all three areas to her time at Skidmore, Owings & Merrill, where she worked following her professional degree in architecture from Virginia Tech. “I fell in love with Skidmore when I was interning with them because it was the “real deal” of Miesian architecture, an

‘architectural boot camp’: training in detailing and the appropriate ways to integrate all architecture and interior design together.”

In her spare time—if there is any—Lovell is pursuing her Doctor of Philosophy in Architecture from Virginia Tech where she aims to elucidate on why interior architecture is so important to all architecture. It’s evident that it is

more than passion—it’s a true calling for Lovell, who shares with us more.

1 Did you always know you wanted to work on interior and residential architecture?


“I fell in love with residential work when I was at Skidmore working on Rowes Wharf in Boston. I was designing three- and four-bedroom apartments.

And I was thinking, “Oh my goodness, I love this level, this area of more human interaction.”

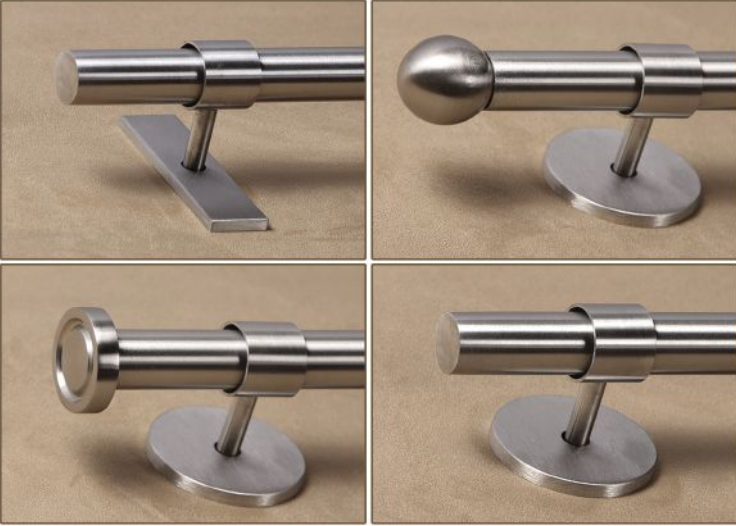
2 What’s it like working in Chicago with such a history of architects?

“Well, it’s a Mecca—a story, after story, after story of architecture. But you also have to remember, there’s a lot of bigotry between architects and interior

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LEFT Lovell reinvigorated and ebonized the original English oak millwork in this stunning library to match the circa-1912 Dagobert Peche large scale, cubic-form ebonized walnut bergères, inlaid with Bakelite and produced for the Austrian Villa of Toscana Gmunden.

architects. We have a hurdle to jump, and I hope I can help jump that hurdle.”

3 Fine art is core to your work. Who are some of your favorite artists?

“Marina Abramovic. Edmund de Waal. And, you know, there are makers like Joseph Walsh; there’s Junko Mori who makes steel vessels with incredible precision and detail. And, Sam Moyer: she’s making artwork with architectural materials and painting on canvases and merging them together. Gerhard Richter has studied the context of architecture, sculpture and paintings combined into a synthetic whole. That’s so cool!”

4 I was stumbling down the path of your website and your projects, I see penthouses, I see homes, I see apartments, I see yachts. What haven’t you done?

“I haven’t done a plane yet. That’s okay with me. But I do love every challenge!”

5 What has been your favorite challenge?

“There is a real complexity in shipbuilding. They take many years. I would say to you that one of the most fascinating moments I’ve ever had was at a shipyard near Amsterdam. [It was] huge. You’re walking on the superyacht as they’re building it, and there was an architectural diagram of the wiring that was inside the ship pinned to the wall: you could see in front of you the reality was exactly as it was in the complex drawings. That’s architecture, right there. That’s what it takes. Superyacht builders share the epitome of creating an architecture in which to experience the world.”

6 It seems that interior architecture is now front row thanks to the rise of remote working...

“Architecture of office buildings is going to change, and architecture of homes is going to change—at warp speed. We’re worrying about Zoom backdrops for our clients, literally: People are branding themselves. Their children have Zoom calls: where’s their space? How do you help your children understand and learn inside that box? When you’re at work and they’re at work, is the house set up correctly? ...there’s a different set of questions that have to be answered.”

Eric Paasecki/OTTO photos

Lovell’s addition of a lyrical serpentine sofa by Vladimir Kagan makes an elegant counterpoint to the striking straight lines of the circa 1930s game table in mahogany by André Sornay.





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Reverent Restoration

Faithful steeplework replicates timber spires in steel and new slate.

Historic twin spires, slender and pointed, grace many a Gothic-style cathedral with their skyward reach, but by the 2010s the pair fronting St. Andrew's Catholic Church in Roanoke, Virginia, weren't looking so heavenly. Explains Gary Howes, Chief Operating Officer at The Durable Slate Company in Columbus, Ohio, each of the 53 ft. tall spires sits on a brick masonry bell tower that extends 74 ft. down to the ground. "Those spires were originally built in 1902 on a wood-timber frame structure integrated into the brick,

but because of termite damage, water infiltration, and fire in one of them, the frames had really grown beyond repair."

Further detailed evaluation confirmed the structural deterioration and that both spires were out of plumb by 10 in. to 12 in. at their tips. Adds Shane Day, senior project manager at Durable, "When they started keeping track of any movement, the east spire had drifted another 3/8" over six months, so that's when the church knew they had to do something."

The Church decided that, long term,

it would be more beneficial to remove the spires down to the internal wood framing and replace them with new, termite proof, steel-framed spires that reproduce the original ornamental copper-and-slate design. "There are cheaper ways to fix these problems," observes Howes, "say, by putting up prefabricated fiberglass spires, so the Church congregation, led by Wayne Gould, and the Catholic Diocese of Richmond deserve a lot of praise for preserving the building without altering it."

Durable worked with Gary Loomis

of Master Engineers and Design to come up with a steel frame system that was light enough not to add any burden to the brick walls, yet strong enough to withstand the wind loads expected on a prominent hill just off the edge of the Appalachian Mountains. After fabricating all the components off-site, they were trucked in, assembled, then craned up into place. "We also fabricated steel structural cages to insert inside the bell towers and sit on the structural wood columns further down in," says Howes, "then the steel framing for the spires

Jason Lee photos



LEFT A landmark on the Roanoke, Virginia, skyline since 1902, the twin spires of St. Andrew's Catholic Church stand ready for another century of service.

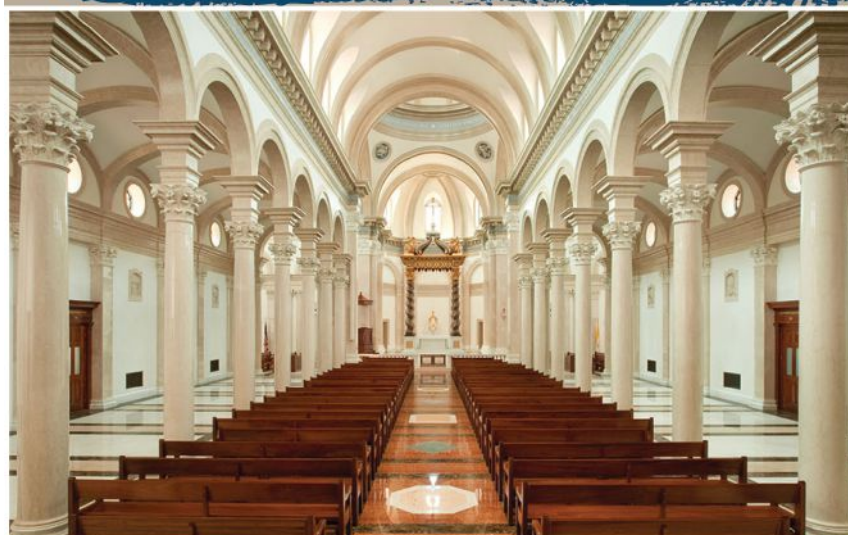
MIDDLE Perched on the intersection of the cruciform plan, the central spire sits over the nave—structurally too dicey a spot to support scaffolding.

RIGHT In addition to working on the three spires, Durable Slate re-roofed the church in Buckingham slate—some 30,000 pieces from the original quarry.

themselves bolted onto that.”

As in the original construction, Day says they chose Buckingham slate, the legendary blue-black slate quarried since the 1700s and renowned for its unfading durability and 150-year plus life expectancy. “We went back to the same quarry in Arvonnia, Virginia, and used the same size, same pattern, same coursing—everything.” Being restoration contractors, he says Durable likes to work with many of the same tools as used originally and very similar techniques. “We matched the same width

1” wood decking as used in 1902—not switching to a plywood or sheet good—and covered it with 30-lb. felt paper; we did add a synthetic underlayment on top (GAF Deck Armor) so the paper won’t blow off during construction.” Slates are attached in time-tested manner too. “There’s a dab of caulk on the back, and then two copper nails.” They also use slate hooks. “In case a slate ever breaks in the future, the hook keeps it from sliding off the roof. (Sometimes wind will shake or work them loose.) Plus, hooks keep the



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ABOVE Critical to the integrity and beauty of the new roof is new copperwork in valleys, ridges, and dormer and spire details.

chattering down, but mainly they're for safety."

Though Durable finished the twin spires in 2014, the team embarked on a second phase: reroofing of church main body and restoring the center spire, but with a different spin. As Howes recalls, scaffolding the twin spires was pretty straightforward because they could go straight to the ground. "But for the center spire in the nave, we were right on the threshold as far as weight limit for that structure to hold the scaffold, plus the material load. So we proposed to the structural engineer and the church that we take all the fabricated skin off the spire, cut the timbers in a nice clean way, and actually crane the spire off to the ground."

As Day explains, the process actually took two cranes: one for a man in a basket to be the eyes for the crane and a 210 ton crane to reach over the building and pick the spire off the roof. "The engineer told us how to proceed and, after numbering everything, we hooked

the crane up to the spire, cut the timbers with a chainsaw, and lowered it down to the ground in one piece." As they lowered, they slid the spire inside a scaffolding tower. "I think it was a 10 ft. by 10 ft opening leaving about 6 in. clearance on each side." From here they moved forward with restoration— copper work, louvers, everything but the cross. Then the spire was craned back in place and bolted to the original framing using custom steel sleeves, as strong or stronger than before.

Howe adds, "The children from the Church elementary school got to watch the raising of the center spire as well as the new copper cross. Plus, parishioners and children signed their names on the spires before craning them into place—an opportunity for everyone to feel connected to the project and historic buildings."

GORDON BOCK is an architectural historian, instructor, and speaker through gordonbock.com.

BELOW Even with the help of a 210-ton crane, the spire restoration was close-tolerance work, especially when operating within scaffolding.

BOTTOM This shot of a spire on the wing shows not only its classic needle-like design but also the Appalachian Mountains just beyond Roanoke.



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The Gold Standard

The history and application of gilding.

Gilding refers to the application of a thin layer of metal to a substrate. Gilding is commonly applied to illuminated manuscripts and book binding, china and useful objects such as clocks and chalices, accents to paintings and sculptures, and in architecture to provide glittering accents on both interior and exterior surfaces. Gilding can use gold, silver, copper, platinum, and a variety of “composite” materials made to either look like a pure metal, or to provide a distinct appearance. Gold is preferred for architectural purposes because it does not tarnish.

HISTORY

Gold as an element has been with us since the beginning of time. Its use in

sculpture and architectural decoration is widespread, dating back to 3000 BC in Syria where silver nails were wrapped in gold foil. Tomb paintings in Egypt at that time depict men beating gold into thin sheets of foil. Early gold foil gilding was attached to the substrate with overlapping sheets and burnished until it attached to the metal substrate. This was obviously very laborious, and not very durable. A refinement was to carve grooves into the substrate, press the edges of the foil into the grooves, and beat the seams shut. While this method was applicable to wood and metal objects, it was not as effective for brittle stone. Eventually animal hide glue was used, but this deteriorated over time, leaving only the gold left in seams and crevices.

Eventually fire gilding was developed in 300 BC wherein gold was melted down and added to hot mercury and stirred with an iron stick until the gold dissolved. This liquid was further treated to form an amalgam. Once the amalgam was applied to the object, it was heated until bonded. This was the standard method of gilding until the Renaissance. In the mid-nineteenth century the method was abandoned due to the concerns with volatilized mercury affecting both the workers and the inhabitants surrounding the gold works.

Once gold refining methods were developed in Mesopotamia about 2000 BC, gold foil could be pounded down into thinner sheets. The purer gold allowed the “gold beaters” to pound the

gold into sheets so light that they move under the breath. Gold leaf production has been the same since the 14th century. Imitation leaf was developed in the 19th century to address the rising middle class during the Golden Age, who wanted to show their wealth at a fraction of the cost.

CURRENT APPLICATION

Gold leaf is typically produced in small sheets, which are sold either loose or on transfer papers. Preparation products to install the leaf depend on the substrate, but the steps are similar. Sand the substrate smooth and remove all dust. Apply a suitable primer to the substrate and let it dry. Apply the adhesive (or “size”), letting it dry until just



ABOVE Application of gold leaf crumbs to get deep into the details.

RIGHT Lifting a single sheet of gold from a booklet.

BELOW Size is required to adhere the gold to the substrate.

tacky for maximum adhesion. The loose gold leaf is transferred one at a time by a gilder's knife. Transfer leaf is applied by placing the leaf with the transfer paper onto the surface, then peeling back the paper.

The type of 'size' used correlates to the substrate conditions. For surfaces with medium porosity, such as wood, plaster, stucco and paper, water-based size is used. For smooth and compact surfaces such as metal, plastic and glass, alcohol-based size is used. Water-based and alcohol-based are suitable for interior gilding. For exterior applications on either porous or nonporous surfaces, oil-based size is used.

TO COAT OR NOT TO COAT?

With pure gold leaf, coating is optional since it doesn't tarnish over time. If using gold with a high silver content, or silver, aluminum or composite leaf, a coating is recommended to prevent damage, especially in areas that can be touched, or are exterior, as they will all tarnish over time. De-waxed shellac natural varnish in several coats is traditional, using a colorless extra-clear type for silver or aluminum leaf to keep its original color.

STRENGTHS AND WEAKNESSES

Two actions damage gold leaf. Interior applications are typically marred by touch—hand soiling, impact damage, and exposure to moisture (roof leaks) and dirt accumulations. Exterior applications are more prone to weathering: wind driven particles, bird soiling, freeze thaw, and UV deterioration of the adhesive, all lead to loss of the surface. These actions take place over decades.

Annual observation can identify when such repairs as touching up scuffs or coating are needed. All locations of gold leaf should be identified by location. The observed conditions should be photographed and recorded by date and kept in a permanent record. This will track when the deterioration is accelerating, and a decision to trigger maintenance can be made at that time.

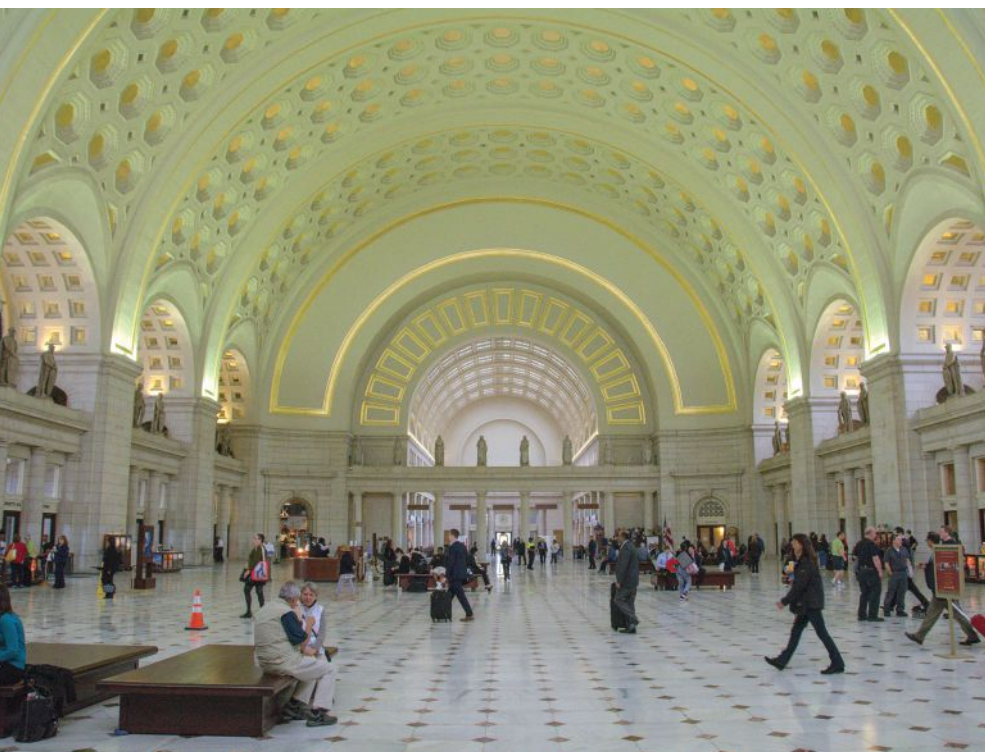
Routine maintenance can slow the surface loss. By maintaining an overall smooth condition of interior leafed surfaces, vandals won't be attracted. By maintaining coatings, the exposure of the substrate will be limited. Gilding which is mostly intact can be repaired by infill gilding smaller areas over time. The process follows a similar method to new gilding and does not require the removal



BELOW Union Station, Washington D.C., restoration of the gold leaf details on plaster.

MIDDLE Restoration of the gold leaf details on flat plaster in the same location.

BOTTOM Close-up of the restoration of gold leaf details on plaster moldings.



Striking Gold

A human hair is 70 microns. Gold leaf starts from 0.15 micron thick. How does it get that thin?

Pure gold, refined from the mines, is melted down at temperatures over 1800° F with small amounts of other elements (copper, silver) for strength. The amount of other elements added determines its color, working properties, and its karat number. Pure gold (24K) is not strong enough for any functional purpose.

The liquid gold is poured into molds to make ingots and cooled. The ingots are then flattened by a series of steel rollers to a thickness of about 300 microns. The flattened gold is then tempered with heating and cooling to remove the tension in the metal, stretching it into ribbons about 25 microns thick. These ribbons are cut into a four-inch squares. The four-inch square, in turn, is divided into four equal pieces, and placed between parchment sheets. Mechanical hammers can pound these postage-stamp-sized down to three or four microns. The rest is manual labor.

Goldbeating is an ancient craft, frequently done by generations of one family. The flattened gold between the sheet of parchment are stacked into a block and delivered to the craftsman. The stacks are and beaten by hand. Goldbeaters are extremely skilled at using many different hammers of different weights. The strikes of the hammer fall in time to their breath, rendering the gold into smooth silky sheets of gold a micron thick that can be blown off the table with a breath.

Each golden film is then cut into four-inch squares that are transferred between the 25 sheets of books that are sold to the gilders. The offcuts? Carefully collected and put back into the melting pot.

of the original gilding extant. Left without intervention, gold leaf can weather away entirely, with little remaining to tell of its form grandeur.

Gilding is a job best left to professionals, both in its original installation, and in the execution of repairs. There is a great deal of experience required in selecting the materials which work with the substrate and each other, and craftsmanship only comes from a person with a great deal of practice and experience. Specifications should require gilders to have at least 5 projects of similar size and complexity, with similar materials and substrates.

It is important to consider that, beyond the fact that pure gold doesn't tarnish, it doesn't require a coating which requires maintenance. Gilding has a higher proportion of costly labor to the material cost, despite the rising price of gold. When specifying repairs or new work, ensure that you place a reasonable time frame for the validity of a bid, due to the gold price fluctuation. Perhaps bidding with a stated per-ounce price for the gold will permit more consistent bidding, and with more fairness to the bidders. Who knows, this approach could be

to your advantage should the price drop.

Resources

www.manetti.com/en/ An informative website for an Italian company of 15 generations over 400 years that is a major manufacturer of gold leaf.

craftsmanship.net/the-worlds-greatest-goldbeater/

Becker, Ellen Gold Leaf Application and Antique Restoration © 1998 Schiffer Pub. Limited

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SUSAN D. TURNER is a Canadian architect specializing in historic preservation of national registered buildings. She is a senior architect at Johnson Lasky Kindelin, an architectural firm specializing in the repair and preservation of historic buildings. She can be reached at susan_rktect@hotmail.com

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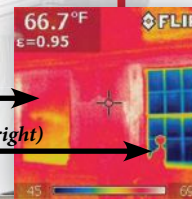
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ABOVE *The School of Athens*, Renaissance fresco by Raphael in Stanze di Raffaello, Vatican Museum, Italy. Aristotle and Plato among other philosophers in the center of the famous painting.

True Art

Quick in execution and long-lasting, frescoes are known as a true art form.

Five-hundred years after his death, Raffaello Sanzio da Urbino, the artist known as Raphael (1483-1520) is still celebrated as one of the finest artists ever to have worked in fresco. It seems only fitting that we examine the techniques of fresco with contemporary masters of the art form this year to honor Raphael's work. We find ourselves in the middle of a worldwide pandemic in 2020. Documented deaths have surpassed 1 million; this year has become a good time to reflect on an art form that endures despite human mortality. Raphael was only 37 when he died, and in his short life, he made lasting contributions to the cultural patrimony of the world through artistic work he designed for the buildings in which he

found himself at work.

D. Jeffrey Mims is founder and director of the Academy of Classical Design, a school of fine art with an emphasis on traditional mural painting and architectural decoration. The Academy serves as the educational branch of The Classical Design Foundation, a U.S.-based nonprofit that was established for the preservation and practice of classical design in the public realm.

Mims learned the technique from Ben Long, (benlongfineart.com), the widely acknowledged master of contemporary fresco, with whom Mims had studied in Italy. Long studied for nine years with the highly-regarded 20th-century Italian master of the art form, Pietro Annigoni (1910-1988.) Readers can

follow a trail of sites of Long's American work at blueridgeheritage.com/destinations/blue-ridge-frescoes/.

Mims believes that buon fresco, or true fresco, is the truest form of the art because the rapid application of paint to wet plaster ensures the greatest durability. Fresco was an inexpensive medium by which durable art could be applied to walls and ceilings. Mims notes that in its best application, frescoes are designed with the building in mind, preferably from the project design inception. And David Mayernik agrees.

Mayernik is a practicing urban designer, architect, artist, and writer whose work has been exhibited and published internationally. He is a fellow of the American Academy in Rome and

the Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA). His teaching focuses on design process, drawing, and the integration of history and theory. He created an online course on the edX platform *The Meaning of Rome*. He is an associate professor at the University of Notre Dame in the Department of Architecture. Notre Dame's program places a strong emphasis on classical training.

Both men work to support the creative development of artists, architects, and artisans. Mims and Mayernik credit elements of Raphael's work to the influence of his uncle, Bramante, the first architect of St. Peter's, where the Raphael Rooms are revered to this very day. Mayernik notes that Raphael's fresco,

The School of Athens, demonstrates a sophisticated level of architectural detail and geometric precision, and that must have been brought about by the influence of Bramante on his young nephew.

Both Mims and Mayernik note that in antiquity and during the Renaissance, architects and artists were cross trained in methods and materials, bringing a depth of knowledge in architectural design, painting, sculpture, and mosaics to their projects.

When they work in fresco, both Mims and Mayernik follow the traditional process to make drawings or cartoons of the design and transfer them from paper to the wet plaster by means of pricking holes in the wet plaster and pushing pigment through the holes.

Mims notes that the materials are basic and organic: earthen pigments and water that are applied with natural bristle brushes. Mayernik added that today some man-made pigments are used, allowing for certain colors that are hard to find in nature, but by and large, fresco is an artistic method using natural materials. Mims mentioned that he has found exceptional sand in North Carolina that imparts a wonderful surface and color to plaster and fresco. Those who appreciate the art form note that Mims' work often has a glow.

Both acknowledge the importance of a good working relationship with a plasterer. Ambient conditions such as humidity and temperature will have an impact on how fast the plaster dries, and the plasterer can help guide the artist in his work. Mims and Mayernik both emphasize how fast the actual painting process is—areas need to be completed typically in eight hours or less, and in rare instances, under 12 hours if humidity permits. If the artist runs out of time, dry, or fresco-secco, can be done to complete the work, but the risk is that the dry fresco is just not as long lasting because the paint, usually an egg tempera, is applied on the dry plaster not bonded to the wet as it is in buon fresco.

Mims works at the Academy of Classical Design and Mayernik at the University of Notre Dame and The American School to find ways to deepen understanding of the relationships between artists, architects, and artisans and the skills each bring to a work of art.

Mayernik, in roles as a professor in the architecture program at Notre Dame and as a practicing architect/artist, is keen to have other architects develop the skills to integrate art such as fresco into their designs. Mayernik says that most architects don't have this training, and therefore, it is difficult for many to integrate the art form into their work particularly in the design phase when



Altarpiece of *Saint Joseph the Worker*, by Pietro Annigoni, in the Basilica di San Lorenzo in Florence, Italy.

Zvonimir Alešić / Shutterstock.com



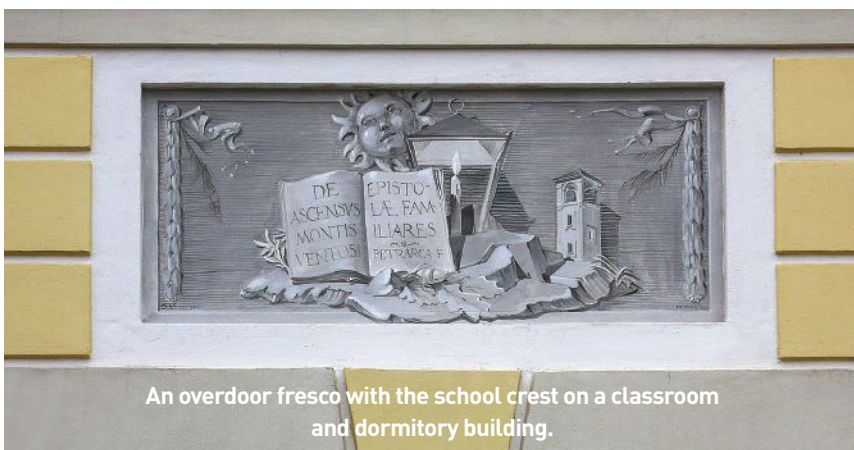
Perugia, Italy—April 9, 2019: Bust of Raffaello Sanzio, known as Raphael. Fresco by Raphael on back wall behind statue. Chapel of San Severo, Perugia, Italy.

Cheyenne One / Shutterstock.com



Academy Instructor, Peter Daniel photo

LEFT Here is a process shot of fresco training. First, on the far left, a copy was made in oil on gessoed panel from one of Michelangelo's Sistine Ignudi. On the second image the outline was traced and pounced onto a specially prepared 'arriccio' plaster panel (courtesy of Patrick Webb) and the image was outlined in what is called 'sinopia' underpainting. The third panel shows a segment of the same figure painted into the 'intonaco' layer of plaster—worked up as a greenish underpainting then colored while the plaster was still fresh.



An overdoor fresco with the school crest on a classroom and dormitory building.

David Mayerik photo

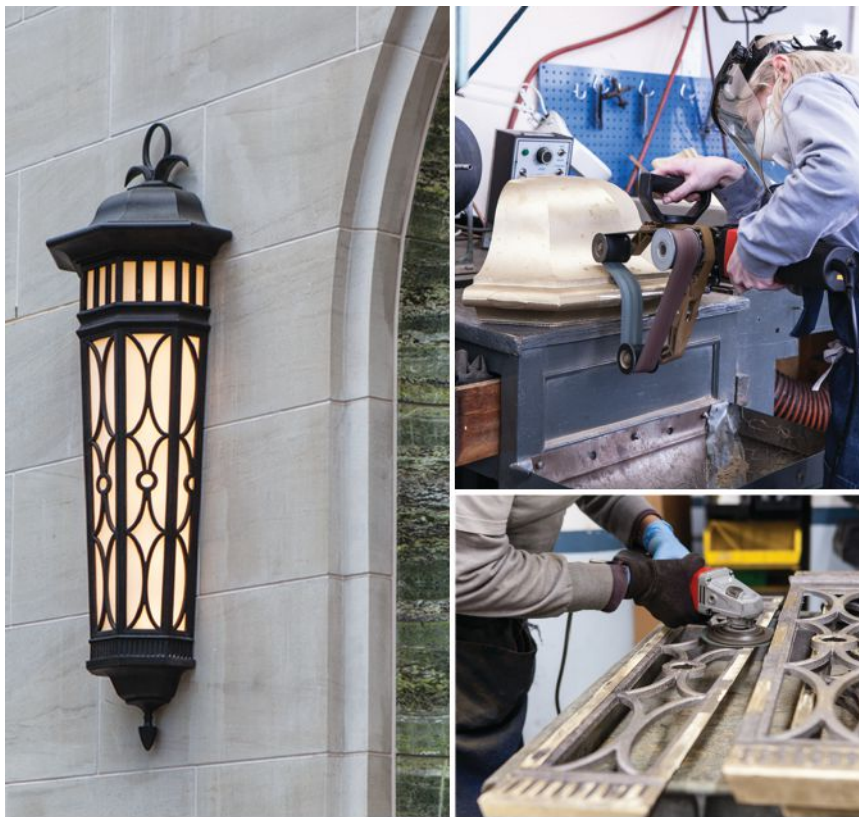
it is crucial to defining the relationship between the artwork and the building. Mims encourages the creation of art like fresco and murals in new contemporary civic buildings from city halls to churches because it is an art form that can continue to teach and inspire. The very act of looking heavenward at frescoes on ceilings is a visceral experience of seeking and finding inspiration and other emotions and insights, whether in a sanctuary or a court room.

In conjunction with the 500th anniversary of Raphael's death, Mayerik had planned a forum about the artist for April 2020 that had to be postponed due to the pandemic. It is hoped that the program will take place in Rome in 2021. Mims was to speak at this event as well.

The pandemic of 2020 has reminded us that life can be short and uncertain,

but like generations before us, this pandemic will pass; we will continue to make art and architecture that endures and inspires us to build a better world.

JUDY L. HAYWARD is executive director of Historic Windsor, Inc., and the Preservation Education Institute. She serves as education director for the Traditional Building Conferences Series and Online Education Program. She blogs and writes this Techniques column regularly for Traditional Building. She specializes in the development of educational programs for builders, architects, and tradespeople. She can be reached at peihwi@gmail.com or 802.674.6752.



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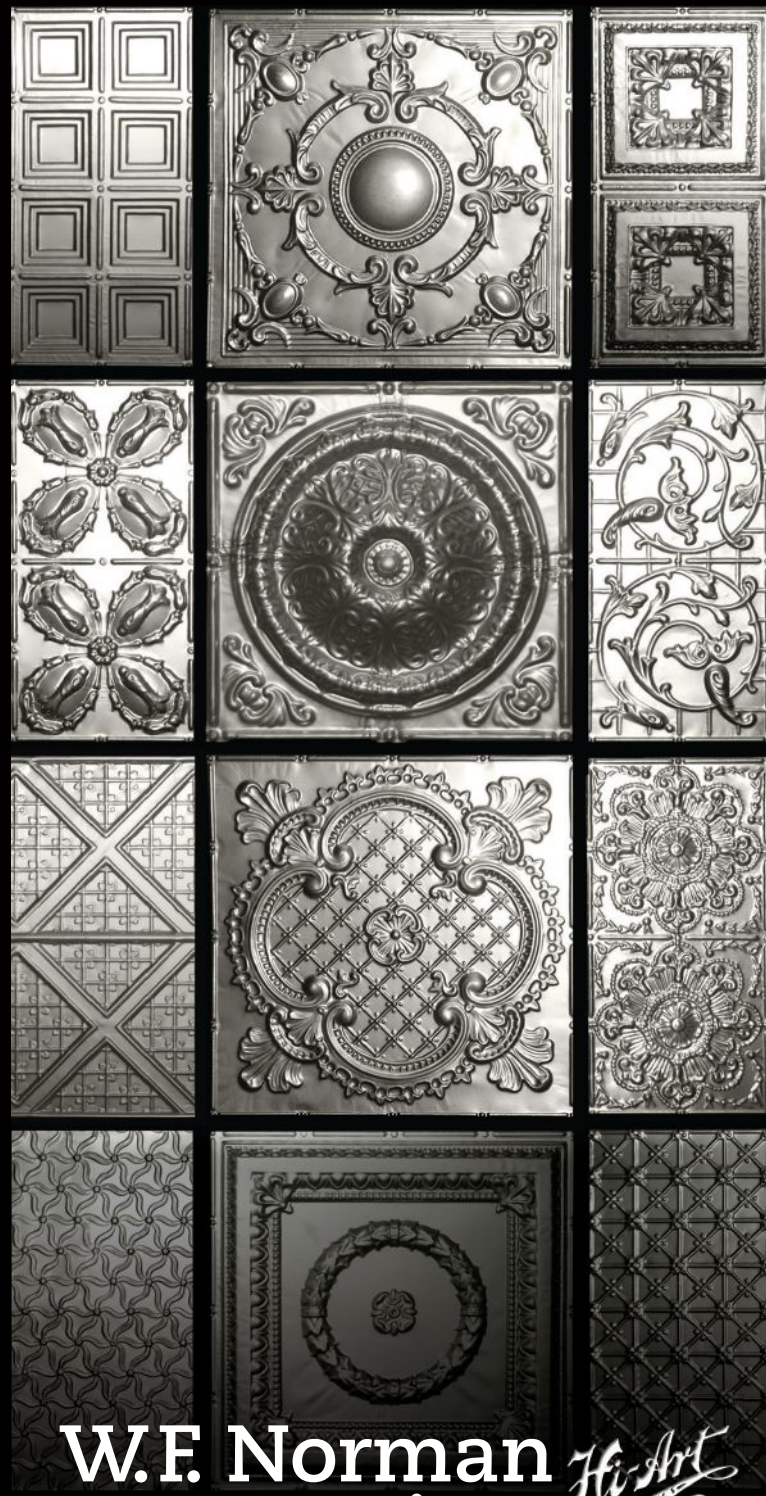
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BY JENNIFER SPERRY



John Canning & Co. photos

Decorative Delights

The art of preserving decorative finishes.

ABOVE “Four Seasons” murals by John Canning & Co. for a residence in Massachusetts.

We’ve all looked up to appreciate the detail and the grandeur. Whether it’s a church cathedral, theater lobby, or state house dome, the artistry overhead and around can both mesmerize and astound you. But eventually, like all good things, these cherished spaces require upkeep from the marching of time, and that’s where experts in decorative finishes come into play.

Luckily for those who maintain buildings of architectural, historic, and religious significance—and for all of us who appreciate them—there are modern-day artisans capable of conserving and even reviving a historic structure’s painterly features. Here are two renowned firms that excel in the invaluable niche of architectural arts.

CONRAD SCHMITT STUDIOS CONRADSCHMITT.COM

Headquartered just outside New Berlin, Wisconsin, Conrad Schmitt Studios is a custom decoration and restoration company. Impressively, its talented teams of artisans have worked in all 50 states. “We’ve traveled coast to coast, even to Hawaii and Alaska,” notes Heidi Gruenke Emery, who co-owns the firm with her brother, Gunar Gruenke.

The company itself is historic, dating back to 1889, when Conrad Schmitt, the son of Bavarian immigrants, established the firm in Milwaukee. It remained in the Schmitt family until 1953, when long-time employee Bernard Gruenke, Heidi and Gunar’s grandfather, purchased it from the Schmitt estate in 1952. “We are now on our family’s fourth generation, with my son and my brother’s daughters

working here too,” reveals Emery.

Services include decorative painting, mosaics, murals, ornamental plaster, stained glass, and statuary. From the early stages, the studio provides invaluable guidance, assessing a project’s condition, establishing budgets, and even brainstorming fundraising plans. Its extensive portfolio includes the Waldorf Astoria in New York City, Wang Theatre in Boston, Basilica of the Sacred Heart at the University of Notre Dame, and Minnesota State Capitol building, among dozens and dozens of others.

“We use historic photos and can also take core samples to investigate the different paint layers,” says Emery of the firm’s conservation capabilities. “We use different solvents to get down to an original paint layer if need be. We just preserved the Sioux Falls State

Theatre and discovered its murals’ true colors and an original stencil pattern by removing a light fixture. There’s a lot of research that precedes the art.”

For optimum authenticity, Conrad Schmitt Studios uses a barrier varnish after the original artwork is cleaned, allowing a future owner to remove their work if desired. “Ultimately our restoration goal is for a painting to be enjoyed as the original artist intended,” Emery contends.

A favorite aspect of her job is the friends made along the way. “Nearly 90 percent of our projects are repeat clients or referrals. We’ve regilded the dome at the University of Notre Dame numerous times, for example,” she relates. “It’s a little sad when a project finishes, but we know there’s always more to come.”

BELOW At the First Church of Christ, Scientist, John Canning & Co. restored this faux mosaic and conserved the surrounding original decoration, which involved stenciling/glazing, freehand artwork, and architectural gilding.

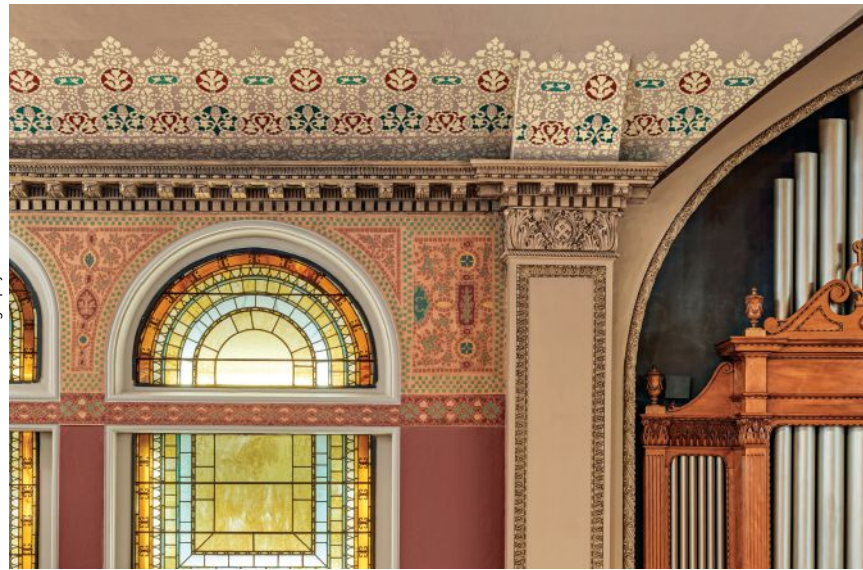


Photo Credit © Robert Benson Photography

BELOW Pictured is one of seven oil-painted panels executed on canvas in John Canning & Co.'s studio for the Basilica of Saint John Evangelist Rectory.

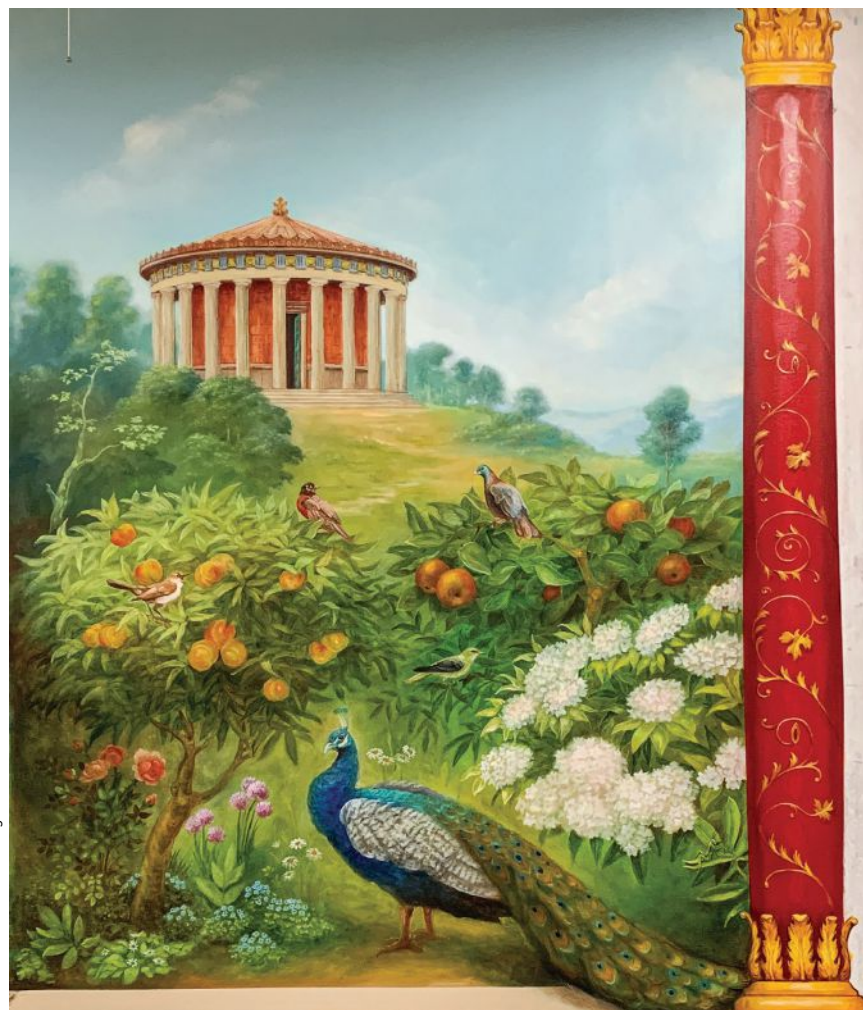


Photo credit © John Canning & Co.

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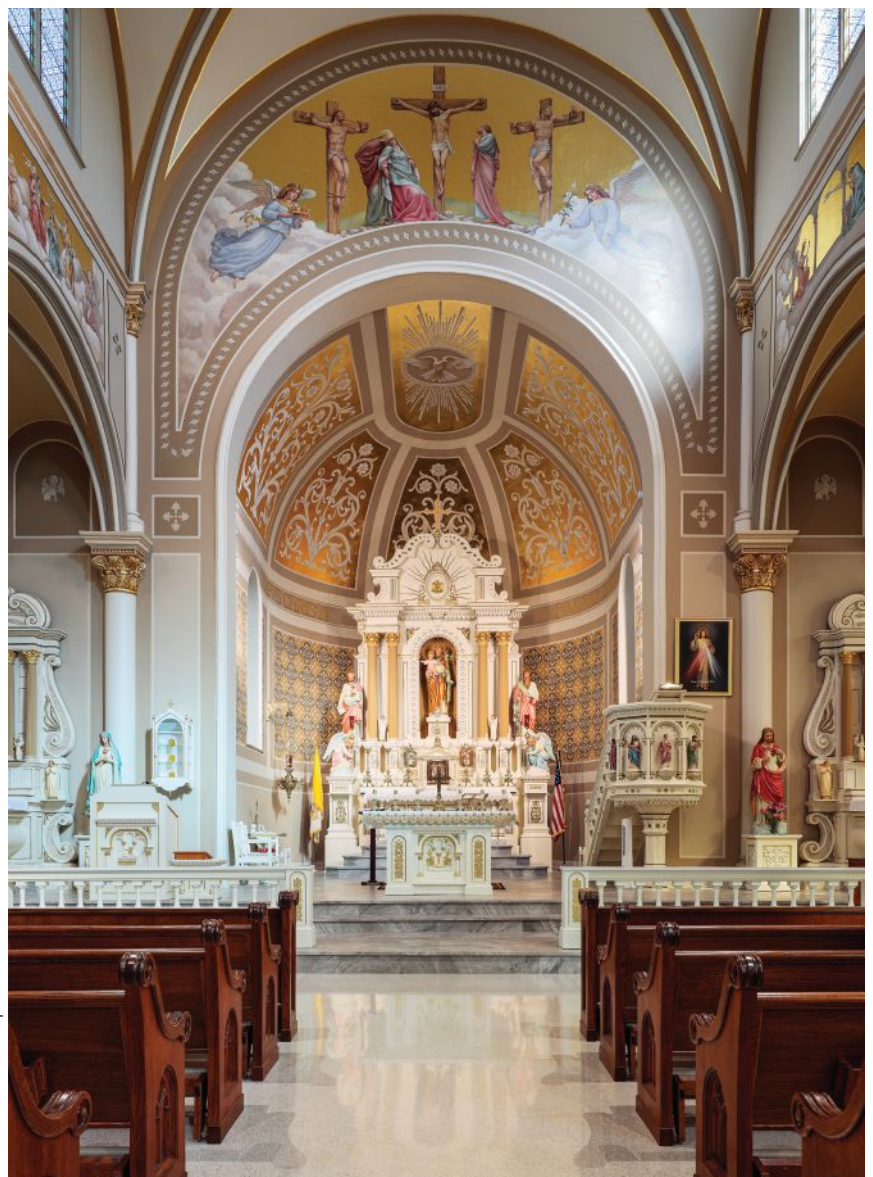
Curiosity, creativity, and collaboration all collide at John Canning & Co., based in Cheshire, Connecticut. The 45-year-old company specializes in historic decoration and the architectural arts.

The company helped preserve architectural gems throughout North America, including over 20 state capitols, beloved museums, libraries, theatres, and university buildings as well as dozens of sacred buildings. Iconic structures in its portfolio include the Boston Public



Conrad Schmitt Studios photo

ABOVE & BELOW St. Joseph Catholic Church in Westphalia, Missouri, commissioned Conrad Schmitt Studios for the interior decoration portion of its renovation. The resulting interior scheme fuses original elements with more contemporary features, and the decorative techniques involved included the application of 23-karat gold leaf, glazes, stencils, and various faux finishes.



Conrad Schmitt Studios photo

Library, Union Station in D.C., the Mark Twain House & Museum, Radio City Music Hall, and Grand Central Terminal, to name just a few.

Company principals John Canning and David Riccio are known for confidently tackling difficult design and

restoration problems with their studio and onsite teams. Their work has gained the firm a long and impressive list of awards, including the prestigious Arthur Ross Award, Bulfinch Awards, and Stanford White Awards from the Institute of Classical Architecture & Art (ICAA).



LEFT As part of its comprehensive renovation, the Cathedral of St. John the Baptist in Charleston, South Carolina, hired Conrad Schmitt Studios to create a new decorative scheme. One of the completed project's standout features is a dazzling blue ceiling dotted with gold foil stars.

ABOVE This side shrine in the Cathedral of St. John the Baptist showcases many of Conrad Schmitt Studio's interior enhancements. The walls and ceiling were previously white plaster.

"At the end of the day, we're problem solvers," says Riccio. "Clients turn to us when they experience technical problems they've never encountered before. What is this coating? What is the composition of this paint? What was the original paint scheme? How do we restore it? That's where we come in," adds Riccio.

"We are very knowledgeable about all of the traditional materials and methods that have been used by artists and craftsmen for centuries," John Canning explains. For example, the firm was tasked with restoring the c. 1772 Maryland State House in Annapolis. "We made our own distemper paints, applied a lime wash to the ceiling, and applied old-fashioned linseed oil paints to the woodwork," says Canning. "We even

sourced brushes similar to those used in the original construction." The traditional three-coat lime plaster system was also replicated and required to slake for over a year. The scratch and brown plaster coats were mixed in the traditional fashion with hog hair for reinforcement and the finish coat was of a neat lime plaster. The ornamental plaster throughout—replete with egg and dart, dentals and swags—were cast of gypsum plaster.

John Canning & Co. is often called in to save ceilings. Deteriorating plaster on the verge of collapse can be reinforced by mechanical fastening methods and acrylic consolidation systems. Consolidation reconstitutes and strengthens the plaster, restoring the integrity of the building, ensuring safety, and preserving the decoration within.

Canning, a time-served tradesman, is a leading authority on historic decorative painting techniques, materials, and color palettes. During the design phase, Canning prefers watercolor renderings to computer generated. "I don't just pick colors—I actually mix them on a palette," he contends. "I find that delivering traditional renderings opens up a client's imagination to what we are trying to do."

In addition to preservation, the company also develops new interiors with authentic period detailing. Two recent examples of custom interiors are a chinoiserie room depicting allegorical scenes of the four seasons and an entertaining space inspired by Pompeian wall paintings at a church rectory. In both cases, the work was executed on canvas in the company studio.

Owen Jones's first principle in his *Grammar of Ornament* has been the firm's guiding verse from the start: "The Decorative Arts arise from, and should properly be attendant upon, Architecture." Coupled with modern-day advancements, the Canning Co.'s practical understanding of architecture and traditional methods provide invaluable perspective on the restoration and new design of decorated interiors.

"We know the traditions, but we also know when to use modern materials and techniques," summarizes Riccio. For preservationists, consultants, and architects, this versatility represents the best of both worlds, making John Canning & Co. one of the most sought-after architectural arts and decoration firms in North America.



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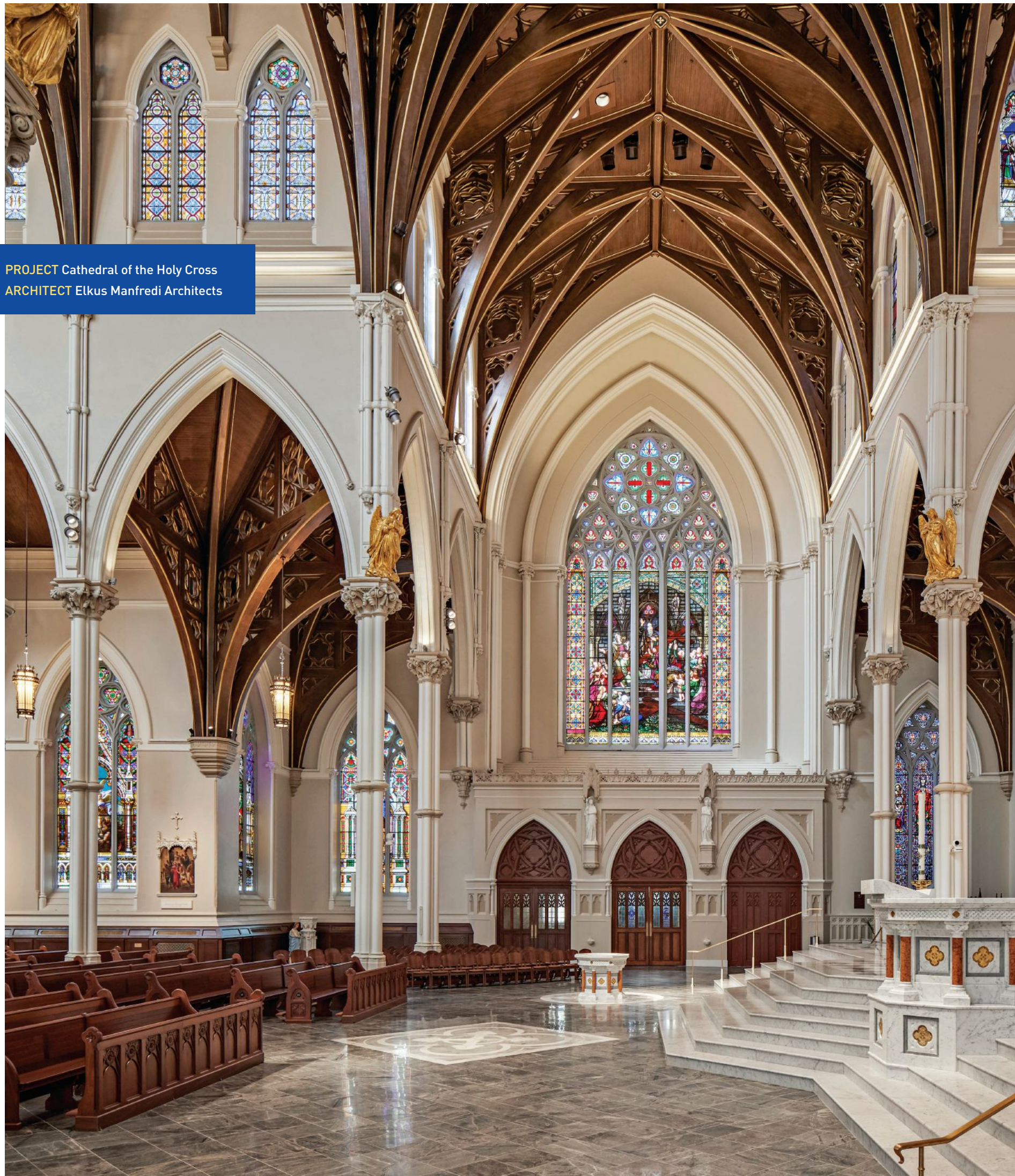
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PROJECT Cathedral of the Holy Cross
ARCHITECT Elkus Manfredi Architects



RESTORED TO GLORY

Elkus Manfredi Architects updates the 1875 Cathedral of the Holy Cross in Boston.

BY NANCY A. RUHLING

PHOTOS BY ROBERT BENSON

The venerable Cathedral of the Holy Cross in Boston, a 19th-century glory-be-to-God Gothic Revival structure with a stunning stained-glass rose window adorning its front facade, lays claim to the distinguished title of the largest Catholic church in New England.

Measuring 364 feet long, 90 feet wide and soaring 120 feet high from the finished basement floor to the ridge of the nave attic, it covers an astounding 61,600 square feet.

The immense cathedral, consecrated in 1875, is made of local Roxbury puddingstone trimmed with gray limestone and houses an E. & G.G. Hook & Hastings pipe organ that's listed as a historic landmark.

The interior of the main church was for the most part neglected for many years, and much of the decoration on the walls and ceilings was covered with decades of grime that left the space dark and inhibiting.

Architect David P. Manfredi FAIA, LEED AP, the CEO and founding principal of Boston-based Elkus Manfredi Architects, says the mandate for the long-overdue renovation and restoration of the structure's interior was simple and direct: Renovate spaces that will stand the test of time for an additional 100 years.

"We wanted to bring new life to the cathedral, which is a beacon of support in the community," he says, adding that the firm also designed the intimate, 500-seat Our Savior Church and USC Caruso Catholic Center in Los Angeles. "We wanted to make it welcoming and fill it with light. We wanted the result to feel like we hadn't been there; our touch was very light."

With no architectural drawings to use as a guide, Manfredi and his team, project architect Cathy Naughton and project manager John

Mitchell, relied upon vintage photos and strove to make choices that, when not historically authentic, were in the spirit of the original design.

The palette of the paint scheme for the walls, for instance, is warm white—the existing, not the original, color.

The project included major infrastructure alterations and upgrades—new mechanical, electrical and plumbing systems and fire alarm and sprinkler systems were installed; and air conditioning for the sanctuary and nave was added for the first time.

The team was also in charge of the repair and cleaning of various elements; repainting the walls and trims, cleaning and re-sealing the wood ceilings and trusses, and replacing the VCT flooring with stone; enhancing the overall lighting system; and refinishing the wooden pews.

"The archbishop also asked us to illuminate the stained-glass windows in the main church, similar to the Blessed Sacrament Chapel," Manfredi says. "The new system makes the church glow, lantern-like, in the evenings."

The cathedral, whose interior was encased in scaffolding while the team worked, was closed for a year while the project was under way; mass was said in its basement.

Suffolk, the construction manager, laser scanned the interior to capture data to incorporate into a virtual design and construction model, a process that Manfredi says saved time and added efficiency.

This allowed the team to prefabricate HVAC equipment off site, assemble, and fit the components together without demolishing walls or otherwise disrupting or damaging the cathedral.

Manfredi says the priorities of the project were dictated by the budget. "The main challenge was there was so much to do and it's such a big space," he says. "We had to be thoughtful about where to

LEFT The choir was relocated from the sanctuary to the nave floor to create more of a connection with the worshippers.



have the most impact; a lot of things were on the ‘must-do’ list, so we had to get the most out of every dollar.”

In the sanctuary, which was found to require structural reinforcement, the team re-constructed the raised two-tier platform that had been added in the 1980s, creating a more spacious setting; re-finished the cathedra or bishop’s seat; and centered the altar, moving it closer to the nave and the congregation.

Elkus Manfredi Architects also re-located, and in collaboration with Baker Liturgical Art in Plantsville, Connecticut, redesigned the baptismal font, the altar and the ambo, which is the raised lectern the bishop uses to read the gospel, to reflect the liturgy of 2020.

“We took inspiration from the church’s interior details so that the design of the appointments, while new, would feel a timeless part of the larger whole,” Manfredi says. “To further es-

tablish a feeling of permanence, some new appointments, such as the floors, the altar, and the ambo, are of marble, not wood like the originals.”

The nave, which is where the congregation gathers, also was rethought. The pew layout, which still allows for seating for 1,900, was reconfigured, and the choir was relocated there from the sanctuary to, as Manfredi says, “create a more unified connection” between the singers and the worshippers and to free up space in the sanctuary.

Elkus Manfredi Architects’ new design also made the cathedral more accessible: The new pew layout made it possible for worshippers in wheelchairs to sit closer to the altar instead of being relegated to the back row of the nave.

The unsightly lift that was in disrepair and no longer functional was replaced with a new one discretely re-located behind one of the side altars; and a new

accessible ramp was added along the pathway to the sacristy, where the vestments and sacred vessels are stored, and to the chapel adjacent to the sanctuary.

The cleaning and sealing of the wooden ceiling trusses offered the team the opportunity to preserve some of the original stenciled murals, which, through the passage of time, had become ghosted and virtually invisible from the floor.

“We discovered that the beadboard edge on the trusses had been painted maroon,” Manfredi says. “When we removed layers of paint, we could see that the original was crimson, but you could not see this from the floor. We wanted to do something special, so we painted it gold instead to match the little gold crosses that were already there.”

The team also discovered and restored the painted-over patterns on the sanctuary walls and used that subtle palette of five to seven shades of white

to pull out specific details such as those around the windows.

The rejuvenated cathedral, which has won numerous awards including the Preservation Achievement Award from the Boston Preservation Alliance, the AIA for Interfaith/Faith & Form Religious Architecture Renovation, and the Architecture MasterPrize for Restoration & Renovation, has been well-received by the worshippers.

“I was there for mass recently, and someone came up to me and said, ‘You’ve reinvented it, and it’s fantastic,’” Manfredi says. “But we didn’t reinvent it—we restored it using light as our paintbrush.”

The Cathedral of the Holy Cross, he adds, holds special meaning for him. “It’s not just a place of worship, it’s an important civic place in the South End where I live,” he says. “I know this sounds corny, but it’s one of the most important projects of my career.”



TOP ROW, FROM LEFT

The exterior, made of Roxbury puddingstone with gray limestone trim, was also recently restored.

The sanctuary floor was reconfigured, the bishop's seat was refinished, and the altar was moved and centered to sit closer to the worshippers in the nave.

The apse was repainted in a gold and cream color palette.

LEFT The ceiling's wooden trusses were cleaned and sealed and the edge detail, which had been painted maroon, was replaced with metallic gold.

PROJECT The Cavalier Hotel
ARCHITECT Hanbury



● SAVING AN ICON

The Cavalier Hotel was rescued from the wrecking ball by an architectural firm that specializes in historic restoration.

BY MARY GRAUERHOLZ | PHOTOS BY ROBERT BENSON (UNLESS OTHERWISE NOTED)



LEFT Long-ago U.S. presidents, Hollywood stars, and other limelight-seekers strolled through the grand lobby of the Cavalier Hotel.



ABOVE The seven-story masonry and cast-stone hotel, set on a sand dune in Virginia Beach, Virginia, is in the National Register of Historic Places.

ABOVE, RIGHT Views of the Atlantic Ocean and sweeping skies abound from the Cavalier's guestrooms.

An \$81 million restoration, led by Hanbury, transformed the hotel into an exquisite model of historic detail. The lobby mirrors the architectural features of the original hotel, built in 1927.





N

inety years ago, the Cavalier Hotel was as grand as a venue could be, with movie stars, top jazz musicians, and U.S. presidents celebrating the mood of optimism and prosperity that marked the Roaring 1920s. History was embedded in the Virginia Beach, Virginia, oceanfront hotel: in the elegant rooms, in the saltwater pool, in the lower-level brick oven where game was roasted.

By the dawn of the 21st century, the seven-story hotel had plummeted in social stature and beauty, not helped by a stint as a U.S. Navy training site during World War II.

“It was a slow, painful death for the Cavalier,” says Greg Rutledge, FAIA, a principal of Hanbury, an architectural firm in Norfolk, Virginia. By 2012, the hotel was on the auction block, and every bidder but one intended to raze the hotel. Cavalier Associates, a group of six local business people, went against the tide and saved the icon.

Rutledge, who specializes in historic restoration and design, recalls his first glimpse of the hotel, set high on a sand dune against a backdrop of the Atlantic Ocean. “I remember thinking, ‘it doesn’t look that bad,’” Rutledge says. Then he walked inside. “It was falling apart. You could see the damage of the interior’s structural aspects literally tearing the exterior skin of the building apart.”

The resulting \$81 million project (\$45

million in hard construction) became a model of historic restoration, bringing together experts in design, construction, and specialty trades, and backed by local preservation incentives and historic-preservation tax credits, both federal and state. “It was a huge bundling of factors,” Rutledge says.

Rutledge and Hanbury project manager Richard Rusinak, AIA, committed to saving the defining features of the hotel, designed by Norfolk architect Clarence Neff, who oversaw much of the city’s architecture. Neff had begun with an innovative Y shape, which gives the hotel an “incredibly efficient floorplan,” Rutledge says, and ocean views from almost every room.

Rusinak and Rutledge also oversaw an exacting restoration of the Cavalier’s major construction features: the masonry and cast-stone exterior and a beautiful interior of ornamental ironwork, decorative plaster, wood paneling, and terrazzo. “We identified, retained, and restored those,” Rutledge says. Fortunately, the first floor was historically intact, with all the original materials in different degrees of degradation, which set the hotel’s overall design for the project.

But the damage to the main floor, guestrooms, and basement, wrought by time and water, was astounding. The entire infrastructure—including plumbing, electrical work, and the security system—were unsalvageable. The former water tower—the six floors above the guest rooms—also was in deplorable condition.

The biggest challenge was the building’s



ABOVE The interior gleams with ornamental ironwork, decorative plaster, wood paneling, and terrazzo.

OPPOSITE, TOP Historic photos guided the restoration of the saltwater swimming pool.

OPPOSITE, LEFT A 1920s lounge, now the Hunt Room restaurant, required a rebuild of the hotel's original massive fireplace. It was dismantled and reconstructed brick by brick.

OPPOSITE, RIGHT Today the guestrooms, still imbued with 1920s glamour, are equipped with luxurious amenities.



corroded structural steel frame. Columns had rusted and expanded, exerting pressure on the masonry. The repair—keeping steel members in place without disturbing to the masonry exterior and the historic interior walls—was meticulously designed, using a floor-by-floor process of transferring or re-supporting loads from above. In the tower, crews replaced the steel and pieced together each corner, and reinstalled the balustrades and cornices with proper flashing.

The combination of restoring original features, or replacing them with historically accurate copies, was a rigorous process that involved expert subcontractors,

including masons and plasterers, who worked with general contractor W.M. Jordan Co. in Newport News. “So many people poured their heart and soul into this building,” Rutledge says.

The historic character of the ballroom, so memorable for many local residents, had been hidden during a past restoration. Rutledge took what he had on record—one photo of the original room and a tiny diagram that showed it as rectangular with a half-rounded end of the east side—to academic experts. A mystery unfolded: “We took down partitions, and lo and behold, the round cornice was still there; so we knew where

the cornice and pilaster capitals were.” The saltwater swimming pool also was returned to 1920s ambiance, thanks to historic photos.

The 1920s-era Hunt Lounge (now a restaurant called the Hunt Room) featured the massive fireplace where cooks roasted clients’ game that they had hunted on site. “It was probably our biggest shock,” Rutledge says.

The fireplace, which had been covered in paneling, had settled and detached from the exterior wall. Crews also found a gaping hole in the masonry wall’s smoke chamber. “We couldn’t jack it up,” Rutledge says. “We dug and dug,

and never found the foundation of the building.” He and the team were left to document the size of the fireplace “to the nth degree,” photographing it from every angle, and meticulously disassembling each row brick by brick, setting them on pallets. After three months of slavish work, every brick in the fireplace is exactly where it had been.

Near the Hunt Room is a last-minute add-on: a distillery. “We were under construction when our clients thought, ‘Wouldn’t it be cool to have a distillery?’” Rutledge says. “We put it in the old laundry room. We had to restructure the center of the building. It’s phenomenal!”

GOTHIC REVIVAL RESTORATION

FFKR restores The Church of Christ of Latter-day Saints' Provo Stake Tabernacle in Provo, Utah.

BY NANCY A. RUHLING

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For over a century, The Church of Christ of Latter-day Saints' Provo Stake Tabernacle had been an integral part of the community of Provo, Utah.

The Gothic Revival-style building, which was designed by Latter-day Saint architect William H. Folsom and features an enormous pipe organ, was the venue for special events ranging from concerts and performances to graduation convocations.

When an electrical fire collapsed the roof and gutted the interior in 2010, the church decided not only to rebuild it but also to convert it into a temple.

"We started working on it two days after the fire," says Roger P. Jackson, FAIA, LEED AP, who is a senior principal architect of Salt Lake City-based FFKR, which has designed and built a dozen Latter-day Saints temples and other Mormon church buildings. "It was a challenge in every aspect because we had to build a new function inside a historic building shell that was consistent and compatible with the original architecture."

The conversion of the 93,000-square-foot tabernacle, which was comprised of a single large hall and a horseshoe-shaped balcony, took six years and a lot of ingenious design work.

The design of the Provo City Center Temple is solidly based on historical architectural precedent.

In addition to cataloging and studying items salvaged from the fire, the FFKR team looked at other Folsom buildings, including the Manti Utah Temple. It also drew inspiration from the Gardo House in Salt Lake City, the Assembly Hall on Temple Square in Salt Lake City and the Utah State Governor's Mansion in Salt Lake City.

"We asked ourselves: What would Folsom have done?" Jackson says. "We wanted whatever we did to feel and be compatible with the time of the original building. We wanted it to fit and feel period appropriate."

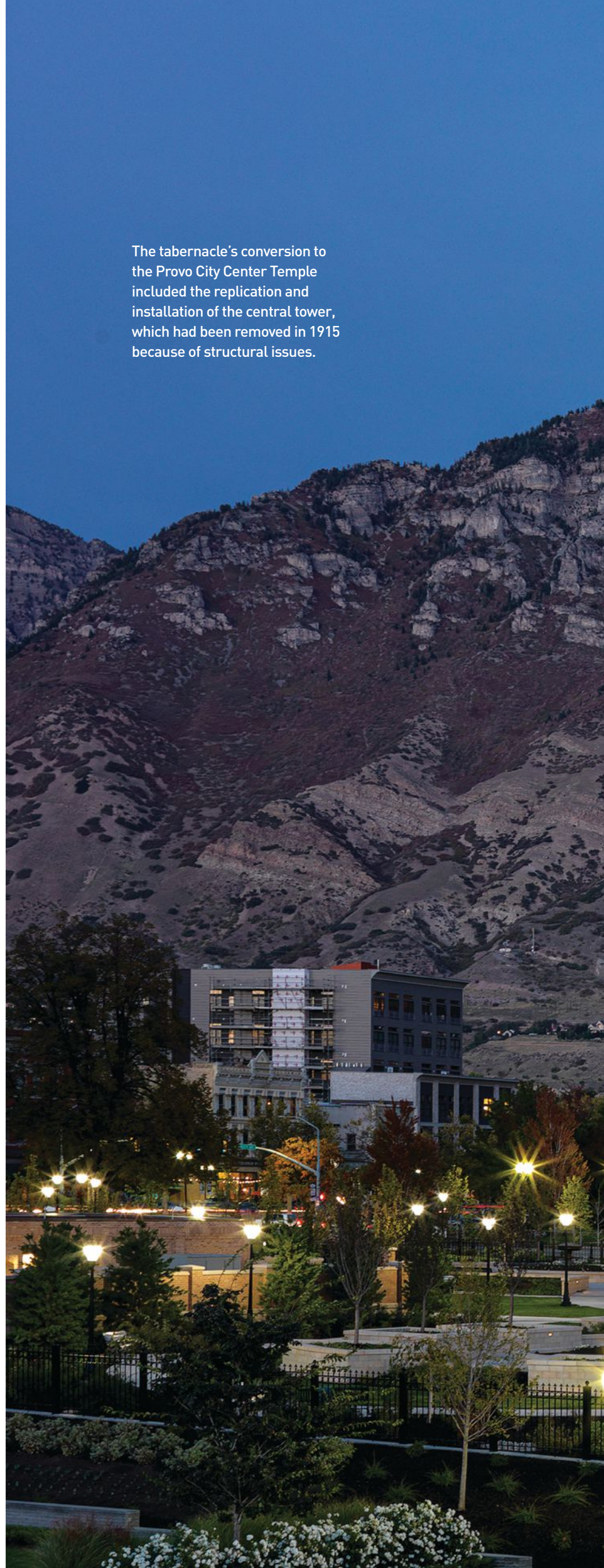
The orange-brick structure, which is defined by a quartet of octagonal towers and a slate roof, was shored up structurally.

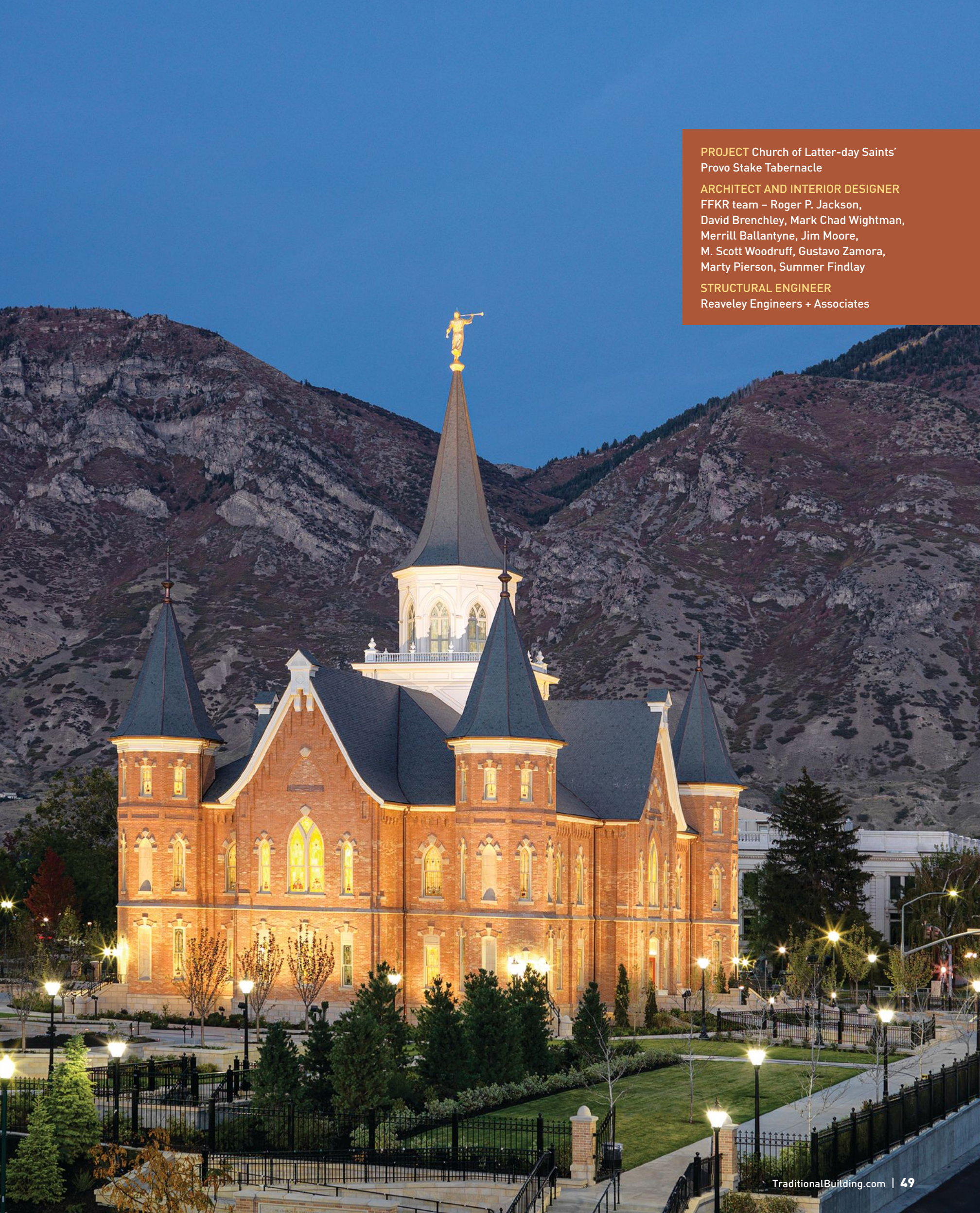
"Originally, there was a central tower," Jackson says. "It was removed in 1915 when the ceiling structure started to sag. Using vintage photos and 3D modeling software, we recreated it to within an inch."

One other element was added to the exterior: a 19th-century-style gazebo.

"We couldn't fit the entire program inside the building," Jackson says. "Every

The tabernacle's conversion to the Provo City Center Temple included the replication and installation of the central tower, which had been removed in 1915 because of structural issues.





PROJECT Church of Latter-day Saints'
Provo Stake Tabernacle

ARCHITECT AND INTERIOR DESIGNER
FFKR team – Roger P. Jackson,
David Brenchley, Mark Chad Wightman,
Merrill Ballantyne, Jim Moore,
M. Scott Woodruff, Gustavo Zamora,
Marty Pierson, Summer Findlay

STRUCTURAL ENGINEER
Reaveley Engineers + Associates



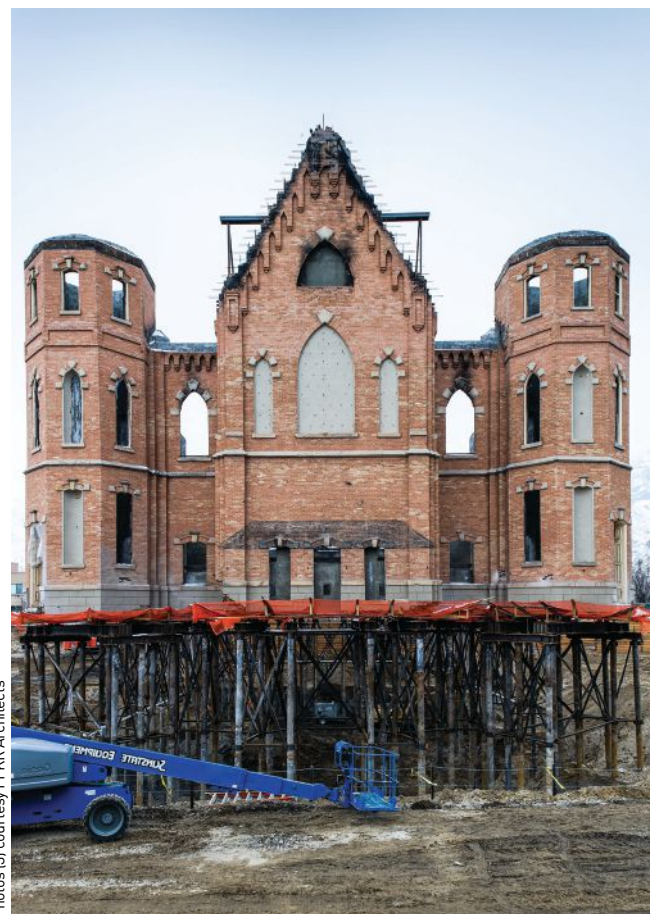
ABOVE The exterior waiting room, which is styled like a 19th-century glass gazebo, is designed for visitors and those too young to enter the temple. It has an organ inside.

CENTER The carved piece at the pulpit in the patron waiting room chapel is from the historic tabernacle.

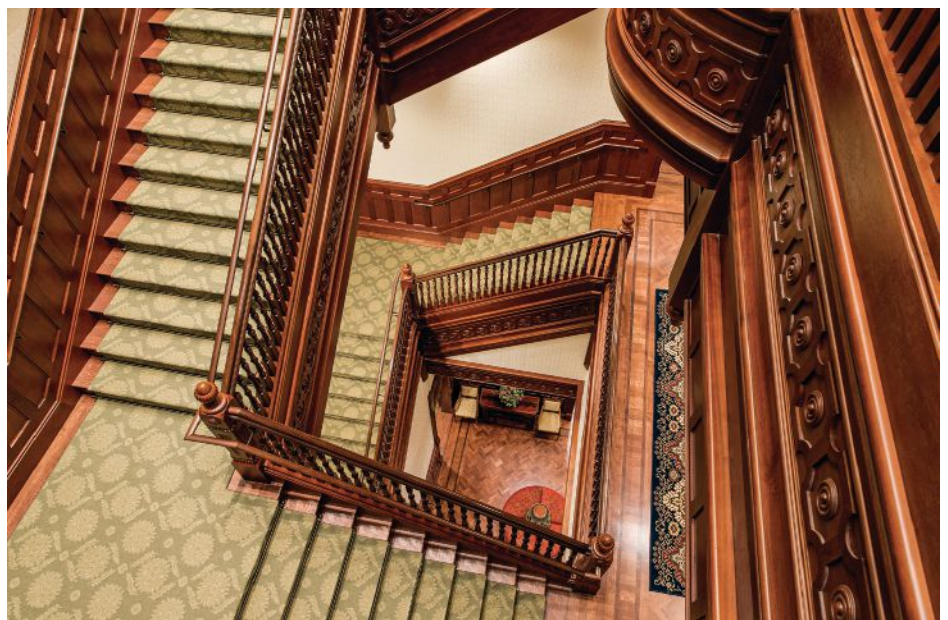
FAR RIGHT, TOP The furnishings for the interiors were custom-made to replicate the Victorian style.

FAR RIGHT, BOTTOM A grand staircase, whose design is based on historic styles and motifs from the tabernacle, connects the two main levels of the temple.

RIGHT In 2010 a fire ripped through the building gutting the interior and collapsing the roof.



Photos (3) courtesy FFKR Architects



temple has a separate waiting room for those who are not members in good standing or who are visitors or who are too young to enter. So we designed a glass gazebo and sited it outside.”

The tabernacle’s original stained-glass windows, which were installed in 1917, were replicated based on comprehensive photographic documentation completed some 15 years before the fire.

“They are deliberately Gothic in design with a floral flourish, candle flames, shields, open books and beehives,” Jackson says, adding that the art glass window in the lobby depicts Christ the Good Shepherd. “The interior glass is lighter in color, slightly more transparent and a bit more sparkly.”

Temples feature numerous rooms, so the FFKR team decided to split the interior space into two floors to accommodate all of them and to add a 136,000-square-foot underground parking garage, a godsend on a small city site.

“The interior details reflect the eclectic design of the original taberna-

cle,” Jackson says, adding that mahogany and walnut were chosen to emulate the faux-painted woods in the tabernacle. “Eastlake details on the lower and main level of the temple transition to more Victorian Gothic details on the upper level.”

Materials, finishes and colors also follow Victorian style rules.

“The furniture—there are 884 pieces—was custom made,” Jackson says, adding that 70 percent was created by Utah craftsmen. “The designs were inspired by antiques and other historical documents from the time era. The paint colors reflect common colors used in the tabernacle as well as popular colors in 1880s Utah.”

In the new configuration, the basement has a baptistry that borrows details from the Gardo House, separate locker “changing” rooms for men and women and a bride’s room for pre-ceremony primping.

“The art glass skylight in the bride’s room has a floral pattern,” Jackson says.

“The decorative paint frieze of swags and flowers on the walls was found in the ruins of the priesthood room in the burned-out building.”

The first level has a waiting chapel and a first instruction room; the second level features the second instruction room, the celestial room and the sealing room.

A grand staircase, which Jackson says “is part of the experience of moving through the space,” connects the levels and syncs historical styles.

The details for its newel posts and balusters come from the stairs and railings in the historic tabernacle; the “bullseye” motif on the stair stringer is from the original balcony railing; and the newel post at the bottom of the stair is derived from those in Folsom’s Manti Temple.

The staircase’s wood-paneled ceiling, Jackson adds, was inspired by the Utah State Governor’s Mansion and several images in Victorian architecture reference books.

The Columbine flower, which is native to the Utah mountains, was used as a recurring motif throughout the temple.

“It’s beautiful in life but difficult to represent,” Jackson says. “The blossoms have five primary petals and five secondary petals that were abstracted to a double star. We used it in many places, including carved features in the furniture.”

The Provo City Center Temple, one of only two in the city, has been well received.

“It has a great character and comfortable spirit that people have embraced,” he says.

He adds that he’s happy the church decided to preserve the original structure, a far more costly undertaking than razing it and replacing it.

The membership apparently agrees with his assessment.

“The temple fills a need in the community,” Jackson says. “It’s busy; it fills up. It’s a place where people want to go. People drive past other closer temples just to see this one.”

ARCHITECT, INTERIOR DESIGN
AND HISTORIC PRESERVATION
Voith & Mactavish Architects



LAW & ORDER

VMA renovates the The University of Pennsylvania's Carey Law School.

BY NANCY A. RUHLING | PHOTOS JEFFREY TOTARO

The University of Pennsylvania's venerable Carey Law School, one of the first established in the country, has a rich architectural heritage.

Penn Law, as the school used to be known, was formally established in 1850, just over a century after the university was founded in 1740.

In 1900, Cope and Stewardson designed Silverman Hall to house the law

school, using the Collegiate Gothic style that has come to distinguish the world's greatest institutions of higher learning. Today, Silverman and three later buildings are arranged like a mini-campus around a central courtyard.

The recent renovation of three classrooms in Silverman Hall was part of a master plan by the Philadelphia-based architectural firm VMA to improve the school's facilities and foster the concept

of collegiality on its campus.

"The law school wanted to make better use of these three spaces, which had last been renovated in the 1980s," says Daniela Holt Voith, FAIA, LEED AP BD + C, IIDA, a founding principal of the firm. "The acoustics were poor and everything—the fixed radial seating, the lighting, heating, cooling, and audio and visual equipment—was outdated."

The architectural ornamentation on

the ceilings and walls also was in need of repair and restoration.

The law school's design committee was democratic: It included some students.

"The students liked the rooms pre-renovation and forgave the fact that the classrooms were not really working for them," says VMA's Sennah L. Loftus, LEED AP.

Voith adds that "they told us they had



KEY SUPPLIERS

VOITH & MACTAVISH ARCHITECTS

Daniela Holt Voith, FAIA, LEED AP BD+C, IIDA; Sennah Loftus, LEED AP; Margaret Holsinger, AIA; Anne Niedrach, AIA; Nina Voith; Brittany Gross, LEED GA

BUILDER Wolfe Scott Builders & Construction Managers

STRUCTURAL ENGINEER Keast & Hood

MEP ENGINEER Burns Engineering

AV/IT KMK Technologies Inc.

ACOUSTICS Metropolitan Acoustics

LIGHTING DESIGN O'Donohoe & Rose Lighting

STEEL FABRICATOR Independence Steel

MILLWORK Boyertown Planing Mill

PLASTERWORK Cooper Plastering

TASK CHAIRS Vitra

LECTERNS AND TEACHING TABLES RT Hogg Cabinetmaker

DESKS Bernhardt

CUSTOMTABLES CCN International

LOOSE CHAIRS Sandler



OPPOSITE One classroom has three levels of seating arranged in a horseshoe shape to promote interaction among students. **ABOVE, LEFT** The flat-floored flexible classroom, whose ornamental details are painted a chocolate/coffee color in homage to the room's original faux-wood finishes, features stackable chairs and tables on casters for a quick transformation for various uses. **ABOVE** The classrooms are wheelchair accessible. Acoustical sheer draperies block glare and let light in.

worked incredibly hard to get to the law school and that they wanted to feel their work here was important; they wanted a sense of elevation of engagement.”

The spaces, which originally had been the law library's reading rooms, had been partitioned into classrooms of the same size, with the new walls containing the entry doors.

The law school's teaching method, a Socratic question-and-answer format that invites peer-to-peer participation and student-to-professor interaction, drove VMA's design strategy.

One of the classrooms features six levels of tiered seating, and one has two built-up tiered floors arranged in a horseshoe shape to foster discussion-like learning. One seats 82 students; the other, for more intimate engagements, is designed to accommodate only 64 students.

The third room is a flexible space not only for classes but also events and seminars. Its floor is flat, the table-like desks are on casters and the chairs are stackable.

Retaining the original character of the rooms was a priority. Although vintage black-and-white photos revealed that they originally were faux painted to emulate wood, the team opted for a less costly solution.

The two tiered-seating classrooms were painted Wedgewood blue and white for an Adamesque classic look, and architectural details in the flex-space classroom were painted a chocolate-coffee color in homage to the original wood-like hues.

The enormous brass chandeliers were replaced with halo pendants that all but dissolve into the ceilings.

New partition walls, complete with replicated architectural details that match those of the rest of the walls, were created, with craftsmen doing the plaster molding on site. In the two tiered-seat classrooms, the contemporary-style table-like desks, like the rooms, are curved, and their seats are attached.

Although the footprint of the class-

rooms was not altered, the spaces were reconfigured.

“We made each classroom accessible and rotated the teaching position 90 degrees so people could enter without disrupting the classroom,” Loftus says. “Acoustics were of prime importance—the law school videotapes and audiotapes every class—and we worked hard to get the teaching environment to be part of the design instead of a detriment. We added a microphone at each seat, placed cameras discretely between columns and used acoustic plaster on every flat panel available.”

Integrating the new technology into the spaces, which each feature two walls of grand floor-to-ceiling windows, in an unobtrusive manner was one of the major challenges of the project.

Each room has a freestanding steel assembly that showcases a large LED array that's designed to be replaced with newer technology without significantly damaging the original plasterwork on the walls.

“It's the same type of LED array used in ballparks,” Voith says. “It can be seen in 100 percent daylight, so there's no need for blackout shades. We did, however, add acoustical sheers to the windows to control the glare on students' laptops.”

When Voith presented the classrooms to the faculty, the reception was positive. “They were stunned at how beautiful and functional the spaces are,” she says. “And the feedback from the students on the committee was that this was exactly what they were hoping for.”

Loftus says the award-winning project represents the “culmination of decades of thought by VMA on how to create the highest and best type of learning environment” and is an example of “classicism and modernity combined to create a timeless presence.”

Voith adds that “we like to say that we design spaces for the development of the mind and the development of the soul. These three classrooms do both.”

LESSONS FOR CAMPUS LIVING

Student housing models
and COVID-19.

BY MELISSA DELVECCHIO, PARTNER,
ROBERT A.M. STERN ARCHITECTS

PHOTOSY BY PETER AARON / OTTO

Benjamin Franklin College, south,
and Pauli Murray College, north,
at Yale University in New Haven,
Connecticut.

Pauli Murray College
Marx-Better
Student Housing



In a conversation with one of our academic clients earlier this year, we asked how and when the university was planning to send students back to campus and what factors would impact future decisions.

During the discussion, it occurred to me that our design for their living-learning building was better suited to new social distancing rules and quarantine situations than some of our other academic projects. Living on campus is central to the United States college experience, but student housing poses a big challenge as schools work to make their campuses safe for students throughout

the COVID-19 pandemic.

RAMSA has designed many residential buildings with varying layouts for colleges, universities, and secondary schools across the United States and in China, from single- and double-bedrooms with shared bathrooms to fully equipped apartments with kitchens. Looking back at these various student housing models with the current health crisis in mind can help us respond to the situation and propose better solutions in the future. For this article, three student housing models will serve as valuable case studies: shared suites designed for the new residential colleges at Yale University; single bedrooms with shared social spaces designed for a living-learning college at Tsinghua University; and micro apartment studies prepared for an unbuilt college housing project on a liberal arts campus. Each housing type is designed to offer a different level of privacy to students and reflects the culture of the institution.

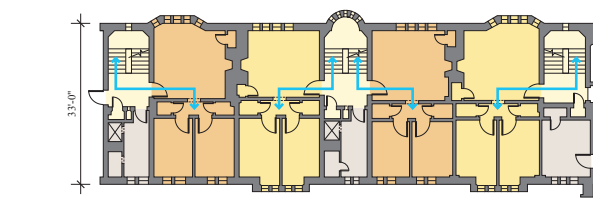
Case Study: Benjamin Franklin College and Pauli Murray College, Yale University

From 2008 to 2017, our office was

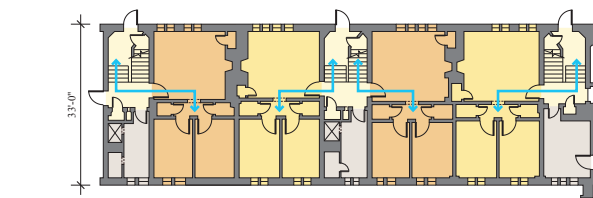
responsible for the design of two new residential colleges at Yale University in New Haven, Connecticut—Benjamin Franklin College and Pauli Murray College. The new colleges house approximately 900 residents and were built to accommodate a 15 percent increase in Yale’s undergraduate enrollment. Residential colleges, largely modeled on the academic communities at Oxford and Cambridge, have been the cornerstone of undergraduate life on Yale’s campus since the 1930s, breaking down the larger university into smaller, closely knit communities. Prior to arriving on campus, all incoming freshmen are assigned to one of the 14 residential colleges and remain affiliated until graduation. Each college has its own dining hall, common room, library, and buttery (a late-night, student-run food service), as well as a series of internal courtyards. The colleges have a head of college and dean, both of whom are resident faculty members, living in the college with their families and guiding its many activities.

Like the original residential colleges, our colleges are planned according to the “entryway model”—an arrangement

of residential units comprised of single bedrooms opening onto a shared common room, vertically stacked around a stair hall. This organization is customary at Oxford and Cambridge but rare among American colleges, where many typical dormitories are organized horizontally by floor along corridors. Yale’s student residences have long used the entryway model, from its first residential buildings in the 1700s, called Old Brick Row, to the design of the original 10 residential colleges in the 1930s, where Yale graduate and architect James Gamble Rogers’ placed entryways along enclosed courtyards. Rogers’s decision to adopt the traditional entryway model was not based on sentiment but rather on a sense of efficacy: its “many advantages for safety and convenience were so apparent that it was considered almost a requirement,” according to *The Architectural Record* of February 1918. The plan’s apparent convenience lay in the resulting congenial suites that spanned the full width of the building, from street to courtyard or courtyard to courtyard, thereby providing natural ventilation in warm weather and balanced heat distri-

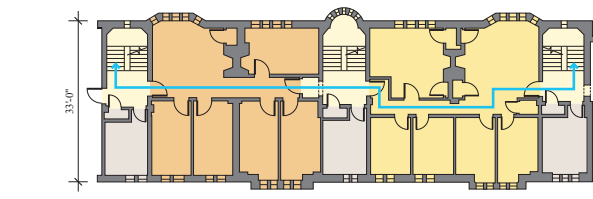


Typical floor

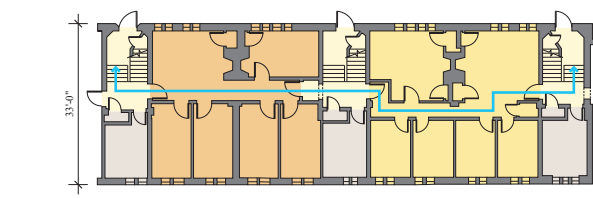


Ground floor

Historic entryway residential modules

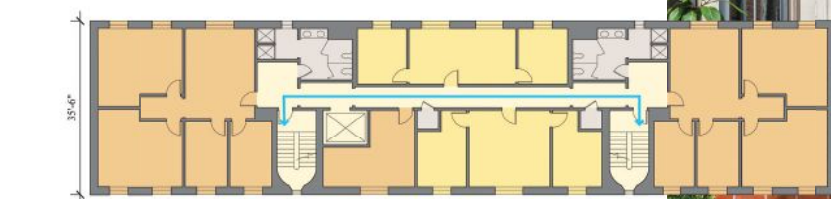


Typical floor

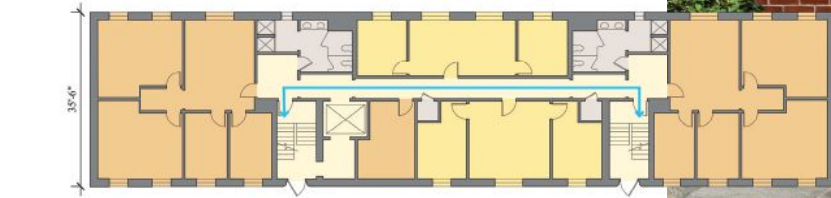


Ground floor

Renovated entryway residential modules



Typical floor



Modified entryway residential modules designed for Benjamin Franklin and Pauli Murray Colleges.



Benjamin Franklin College entryway A, view east from south courtyard.

bution in the winter.

Both the residential college system and the entryway model offer significant social benefits under normal circumstances, and prove to be even more advantageous during the pandemic. Ordinarily, these housing arrangements build strong bonds and networks between students associated with a college and even more so with an entryway. Today, by breaking down the larger campus first, into smaller residential college communities, and second, into isolated entryways, this arrangement limits contact between students, thereby making contact tracing and containment easier and reducing spread. Additionally, because the entryway layout does not depend on a central corridor for circulation, thinner floor plates and through-floor

suite layouts provide good natural cross-ventilation—this is not only beneficial for general health and wellness, but for the air exchange necessary to mitigate an airborne illness.

To meet current building codes which require two means of fire egress and accessibility for disabled students, we created what we call a “modified entryway model”—essentially two traditional Yale entryways connected by a short corridor and an elevator. This model modestly increases the student population within an entryway, with larger four or six-person end suites of double and single bedrooms and smaller double and single suites or freestanding single rooms along the central corridor. It maintains both the social benefits of the historic arrangement and is equally

as adaptable for a pandemic. Bathrooms are located outside the suites, but shared only within the same entryway. This carries a social benefit for students, who can cross paths in the bathrooms, but it also provides additional safety to maintenance staff, who can clean bathroom spaces without entering students’ private quarters.

Interestingly our new colleges were used by first responders who wanted to remain quarantined from their families during the worst periods of the outbreak in early spring, when students were no longer on campus. We understand they served this purpose quite well.

Case Study: Schwarzman College, Tsinghua University

At Tsinghua University in Beijing, we

designed a very different residential building for the Schwarzman Scholars program—a one-year degree for top students from China, the United States, and around the world with concentrations in public policy, economics, business, and international studies. The program is intended for students to strengthen leadership skills and to foster a deeper understanding of China in a global context. Unlike our work at Yale, which houses undergraduate students, Schwarzman Scholars range in age from 21 to 28, so many have already held jobs and lived in their own apartments prior to entering the program. The design goal was to give students the kind of privacy that one would expect in adulthood while also encouraging social gatherings in shared spaces and facilitating network-building



among classmates.

The organization of the building around two courtyards again recalls both traditional Oxford and Cambridge colleges, but also the courtyard houses of China. Beyond a low garden wall with open pavilions, an entrance courtyard welcomes both scholars and visitors to Schwarzman College. Inside, a double-height “Forum” serves as a social space for informal conversations, lectures, and large gatherings. This room can be transformed for important events and easily hosts key visitors and dignitaries. The Forum opens onto a second, larger, sunken courtyard with social spaces at the main level, classrooms and an auditorium below, and student rooms located above. This central courtyard, analogous to the rear, private courtyards of a Chi-

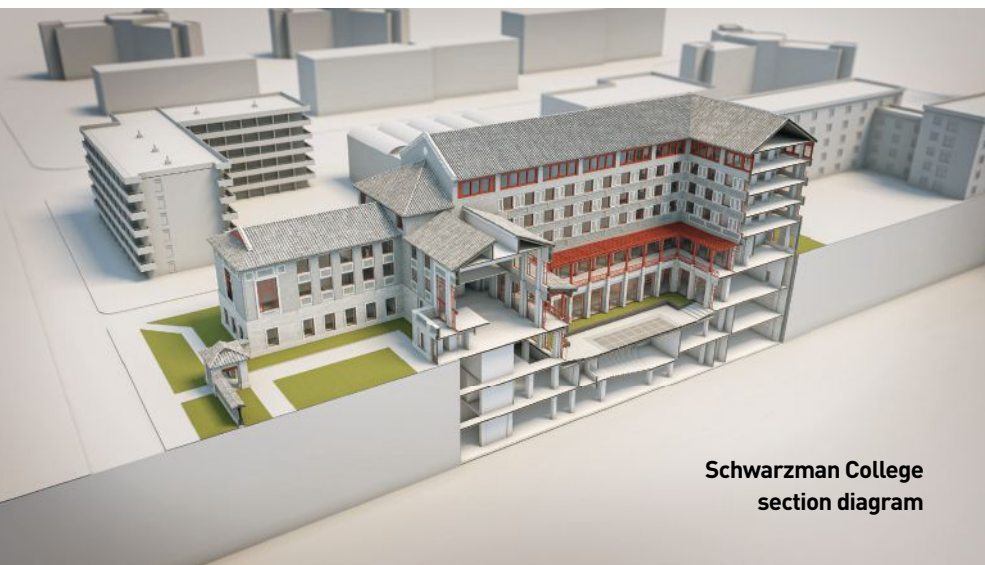
nese house, but modified to extend one level below ground, brings natural light to spaces located below grade.

Students live in single rooms organized in groups of eight that share a common room, intended to foster close relationships among subsets of the up to 200 scholars planned to be enrolled at any given time. This housing model is loosely based on Harvard Business School’s Executive Education housing, another educational context where building strong social bonds over a relatively short period is important to pedagogical goals and methods. Each scholar has their own bathroom, and the rooms feature built-in storage, a large desk, and a big window for natural light and ventilation (when the air quality is good outside). The rooms are intention-

ally small to provide for privacy while at the same time encouraging students to use social spaces. The common room features a small kitchenette and is primarily used as a place to study and socialize. Although student rooms are organized in small groups, due to Chinese building codes egress flows through the corridors and suites. As a result, the common rooms are not internal to the eight-person subgroups or strictly assigned, so students can easily move between social groups. The design of the Schwarzman College residential units is more like a traditional hotel room, with access to shared amenities and opportunities for students to come together as a whole community in the main public spaces like the Forum, library, and dining hall. For example, all main meals are

taken together in the dining room and a pub at the lower level provides space for student-led activities and socializing in the evening.

This plan is very adaptable to COVID-19 safety protocols. Distribution of students on different floors allows for isolation of the student community, and the separate common rooms can be easily demarcated as quarantined areas if necessary. Private bedrooms and bathrooms allow individuals to quarantine more easily, and faculty apartments are located away from student areas. Although this layout involved additional cost, in this case it was considered a requirement due to the older age of the students and it has become an advantage in terms of flexibility and adaptability. Unfortunately, due to international travel



Schwarzman College section diagram



Schwarzman College typical student room. The rooms feature built-in storage, a large desk, and a big window for natural light and ventilation.



SECOND FLOOR PLAN

SCHWARZMAN COLLEGE
TSINGHUA UNIVERSITY
BEIJING, CHINA



The double-height Forum at Schwarzman College serves as a social space for informal conversations, lectures, and large gatherings.

restrictions, most Schwarzman Scholars have not been able to return to campus and the program's staff has had to be creative in providing an immersive and community-building experience in a remote setting.

Case Study: Proposed Student Housing for a Small Liberal Arts College

Housing studies we prepared for an unbuilt college project on a small liberal arts campus push the idea of increased levels of privacy for individual students even further than Schwarzman College. As set by administrators, the project was to be housing for third- and fourth-year students that would foster maturity and prepare students for life after graduation. But how is that accomplished in a way that still gives students the independence they crave and also offers useful shared social spaces to build community? From a mental health and wellness point

of view, the school was interested in exploring options beyond shared student apartments, something that could bring together larger cohorts of students and be more inclusive.

This campus had a tradition of small residence halls, many of which had been converted from old sororities and fraternities. We carefully studied these buildings, which tended to bring together groups of 25–30 students in single bedrooms arranged around a shared common room and kitchen, and used them as a model for a new series of residential housing studies. Another precedent for this work was the Arcade Providence Micro Lofts in Providence, Rhode Island. Previously a historic shopping arcade, Northeast Collaborative Architects renovated the building in 2013 and transformed the upper floors into a series of micro apartments. We thought this idea of micro apartments would

work well with the project and applied it to our housing studies.

We designed micro-sized apartment modules that could be used in place of a typical single bedroom and arranged them in groups of 25–30 with a shared “great room,” a lofty common living room and study space open to a large display kitchen where students could cook and eat together or be instructed in nutrition and cooking by trained chefs. Smaller quiet study rooms were also provided on each floor.

The micro apartments at the upper levels, each about 200 square feet, contained a murphy bed that folded into a sofa, built-in storage and a desk, a small kitchenette that allowed for some personal food storage and preparation, and a small private bathroom. These student rooms provided the kind of privacy that students want in their final years, while also providing an expanded

social unit with the shared kitchens and amenities. The residential groups were arranged around a series of courtyards and other amenities to be shared by the entire complex. The outdoor amenities included vegetable and aromatherapy gardens, meditation gardens, a fire pit, a swimming pool, and indoor and outdoor exercise facilities with a juice bar. The complex also included office spaces to house mental health staff, diversity programs, and other academic support functions.

This project was not realized, partially due to the cost of the plumbing required for the micro apartments. Yet, it's easy to see how that cost consideration might be different now given the flexibility afforded by the plan. Each residential unit of 25–30 students could be considered a “pod,” with quiet study rooms that could accommodate small seminars or allow some form of hybrid



Schwarzman College library

learning. The micro apartments would allow students to isolate if quarantine was required, the pods would contain potential future infection, and the array of indoor and outdoor amenities would safely maintain social connections within and outside of their unit.

Conclusion

In spring 2020, universities were forced to switch to remote teaching in a short amount of time and under tremendous stress. This shift was successful in many ways but was not representative of a viable long-term learning model. By examining various existing student housing models

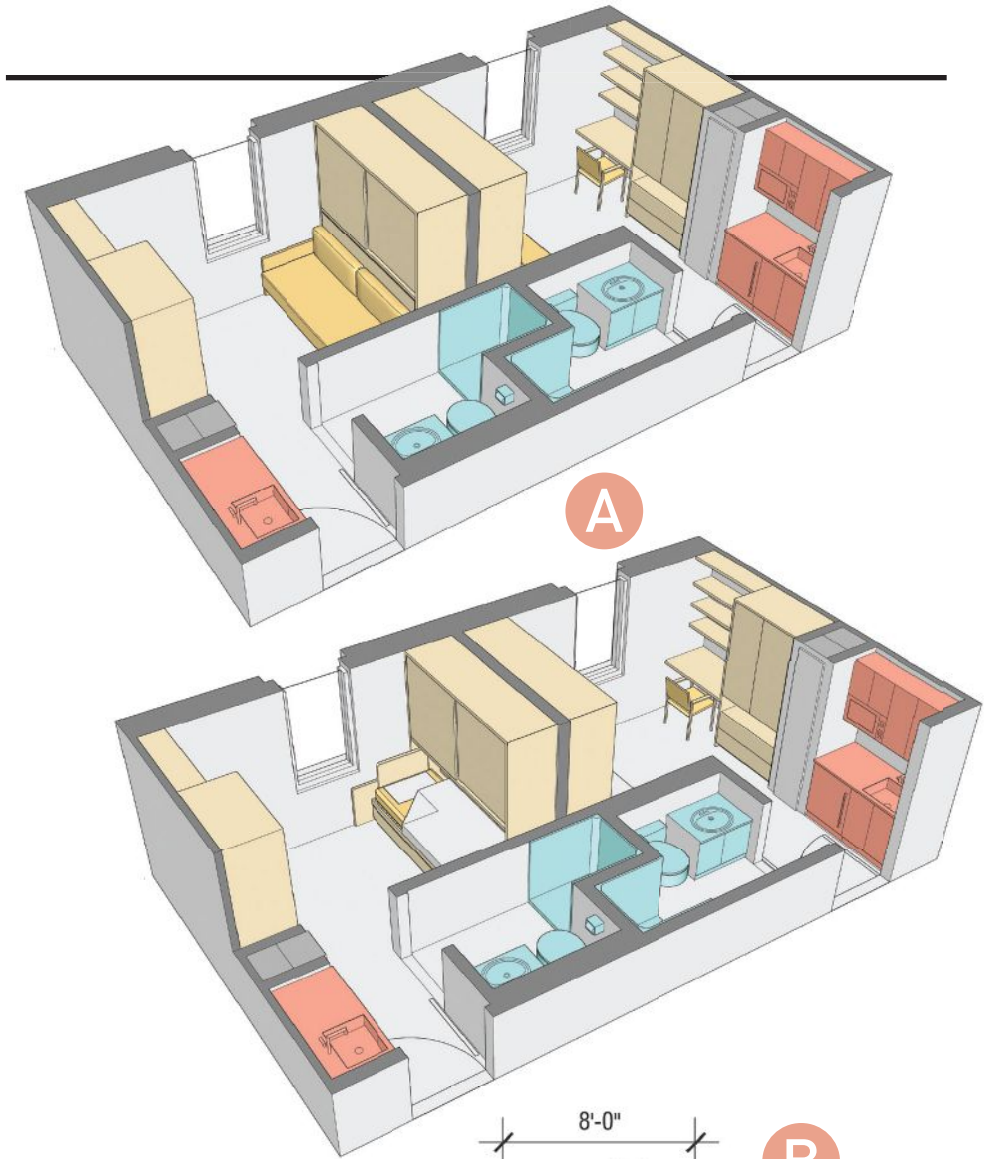
through a new lens, it's clear that certain layouts and community types offer more adaptability and safety during the COVID-19 pandemic as well as more opportunity for successful remote learning and hybrid social situations. At this current moment, it seems clear that 500-person lecture halls will become a thing of the past, suggesting that one of the oldest models for university education, the Oxford/Cambridge tutorial method, with smaller social and educational communities, might return. I hope that this article sparks a new way of thinking about how student housing can be both more flexible and a more intentional component of the college

learning experience. Colleges and universities should explore new living-learning models that leverage the best of in-person learning with the best of remote learning to support society's "new normal."

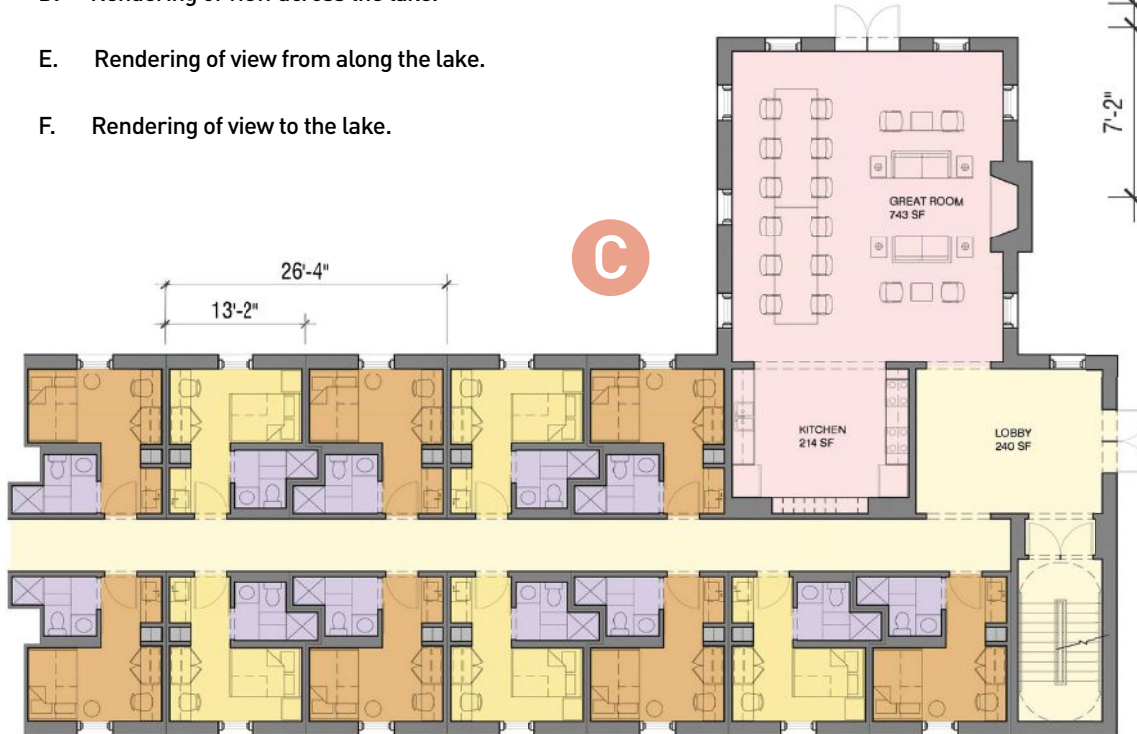
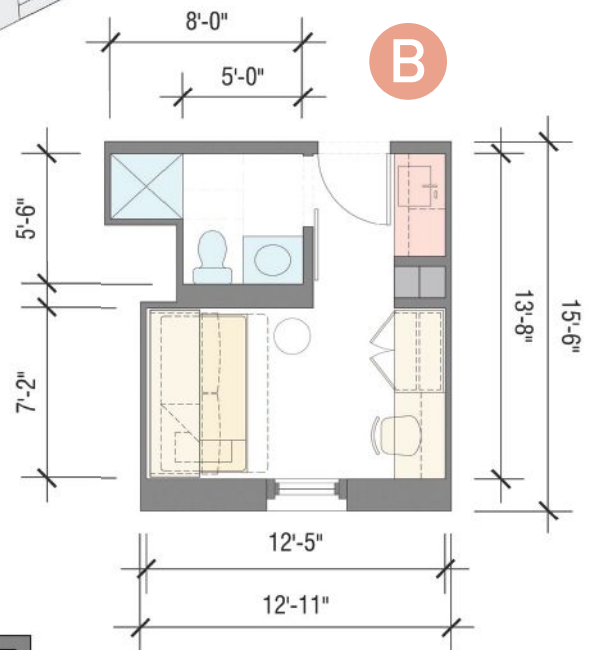
Melissa DelVecchio is a partner at Robert A.M. Stern Architects. She is the design lead for many of the firm's most complex academic and institutional projects and directs the Research Department. Building upon her education that included an intensive study of classical architecture and a subsequent immersion into contemporary design, her work synthesizes tradition and invention, reinforcing the many visual, social, environmental, and cultural

influences that give places identity and meaning. Melissa served as design lead for two new residential colleges at Yale University and is currently working on the restoration and adaptive reuse of the Schwarzman Center at Yale, a historic Carrère & Hastings building that will be transformed into a social hub for the university's students; and the Raclin Murphy Museum of Art, the anchor for the University of Notre Dame's new arts district. Melissa is a fellow of the American Institute of Architects. She is a member of the Richard H. Driehaus Prize jury and the Rafael Manzano Martos Prize jury. In Spring 2021, she will serve as the Robert A.M. Stern Visiting Professor of Classical Architecture at the Yale School of Architecture.

PROPOSED MICRO APARTMENTS FOR A SMALL LIBERAL ARTS COLLEGE



- A. Micro apartment diagrams illustrating bed and sofa configurations.
- B. Micro apartment unit plan.
- C. Floor plan illustrating groups of 25–30 micro apartments with a shared “great room.”
- D. Rendering of view across the lake.
- E. Rendering of view from along the lake.
- F. Rendering of view to the lake.



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Manufacturer of traditional hot-forged solid-brass window hardware: sash pulleys, weights, chains, lifts & locks; stop-bead adjusters, spring bolts, window ventilation locks, push-out casement hardware, storm/screen-door latch sets & more.

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PILKINGTON NA
 800-221-0444; 419-247-3731;
 Fax: 419-247-4517
www.pilkington.com
 Toledo, OH 43697

Manufacturer of low-e glass: hard coat; double-pane unit; emissivity of 0.15.

SEE OUR AD ON PAGE 9, 64.



WINERACKS.COM INC.
 845-658-7181; Fax: 845-658-5309
www.wineracks.com
 Tillson, NY 12486

Manufacturer & retailer of wine-storage products, contemporary metal racking systems & wine-related accessories: designer of custom wine cellars; residential racking systems made of pine, mahogany & oak.

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Trusted. Timeless. Terra Cotta
 (800) 945-8453
www.ludowici.com
 New Lexington, OH 43764




Manufacturer of architectural terra-cotta roof tile & floor tile: Over 40 standard roof tile profiles including barrel, shingle, interlocking & shake & slate alternatives; customize shape, texture & color; historic renovation program; 75-year material warranty includes color.

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see our full page on p. 9





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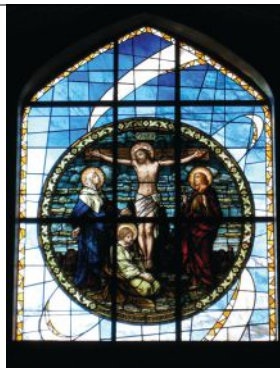
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CASTLE STUDIO STAINED GLASS

215-699-0400; Fax: 215-699-0500
www.castlestudioinc.com
North Wales, PA 19454

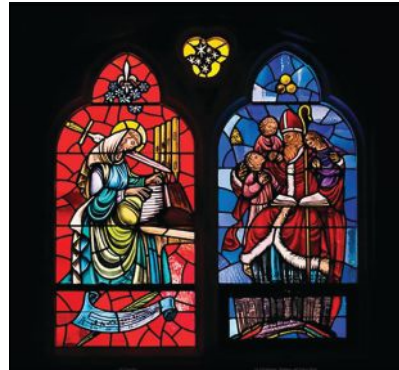
Stained glass studio: Restoration of art glass; beveled, etched, leaded, stained & painted antique original.



HIEMER & COMPANY STAINED GLASS STUDIO

973-772-5081; Fax: 973-772-0325
www.hiemco.com
Clifton, NJ 07011

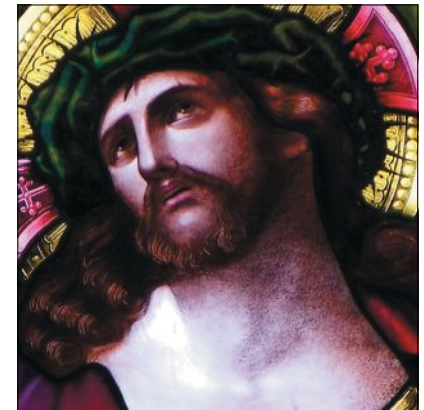
Stained Glass Studio: Designer, fabricator & installer of ecclesiastical stained glass since the 1880s; permanent staff of certified journeymen specialize in traditional & contemporary liturgical design; expert restorations.



HUNT STAINED GLASS STUDIOS

412-391-1796
www.huntstainedglass.com
Pittsburgh, PA 15219

Stained-glass studio: custom-designed works in stained, leaded, sand-etched, beveled & faceted glass; liturgical, commercial & residential projects; repair & restoration; sculpture.



JACKSONVILLE ART GLASS

217-245-6777
www.jacksonvillestainedglass.com
Jacksonville, IL 62650

Full service art glass & conservation studio: specializing in historic stained-glass restoration; fully trained, certified artists for restoration of all types of art glass; full-time art department to design & plan new ecclesiastical art-glass projects.



LYNCHBURG STAINED GLASS CO., INC.

800-237-6161; 434-525-6161;
Fax: 434-525-6168
www.lynchburgstainedglass.com
Lynchburg, VA 24502

Full-service stained-glass studio: replication & restoration of antique & historical stained glass; traditional hand-painting techniques; re-leading, preservation & conservation services.



ROHLF'S STAINED & LEADED GLASS STUDIO

914-699-4848; Fax: 914-699-7091
www.rohlfstudio.com
Mount Vernon, NY 10550

Designer, fabricator & installer of new stained & leaded glass: restoration & replication; protective glazing; beveled, carved & fused/slumped glass; steel casement retrofitting; mosaics; established in 1920.

SEE OUR AD ON PAGE 3, 65.



STANTON GLASS STUDIO

800-619-4882; Fax: 254-744-4337
www.stantonglass.com
Waco, TX 76705

Designer & fabricator of custom glass: stained, leaded, beveled, etched & hand-painted; stained-glass restoration & conservation; commercial, church & residential applications.



SUNFLOWER GLASS STUDIO

609-397-1535; Fax: 609-397-0660
www.sunflowerglassstudio.com
Stockton, NJ 08559

Custom windows for churches and residential clients: hand beveling; leaded and stained glass; antique repair; lighted sculptures of buildings ('Archi-Types'); and a full wholesale line of accessories.



SWIATEK STUDIOS

716-597-6683; Fax
www.swiatekstudios.com
Buffalo, NY 14210

Restoration services: for churches & historical landmarks; decorative painting, statue restoration, brass plating, stained-glass restoration; murals, stenciling, faux finishes, gilding, marbleizing, carpentry, trompe l'oeil & decorative plaster.

SEE OUR AD ON PAGE 15.



WILLIAMS STAINED GLASS STUDIO

412-344-0220; Fax: 412-344-0219
www.williamsstainedglass.com
Castle Shannon, PA 15234

Designer, fabricator & installer of custom art glass: residential, commercial & ecclesiastical applications; restoration services for historic stained glass; full-service studio.

ROHLF'S STAINED & LEADED GLASS STUDIO, INC.

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TEL: (914) 699-4848

Email: rsg@rohlfstudio.com

Website: rohlfstudio.com



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SCULPTURE & STATUARY



**ANDREW WILSON SMITH
SCULPTURE STUDIO**

574-315-4426
www.AndrewWilsonSmith.com
Dunmore, PA 18512

Designer, fabricator and installer of fine art & architectural sculpture; materials include but not limited to bronze, plaster, stone. Other specialties include natural stone mosaics. Established 2006, projects for ecclesiastical, institutional.

SEE OUR AD ON PAGE 66.



BAKER LITURGICAL ART, LLC
860-621-7471; Fax: 860-621-7607
www.bakerliturgicalart.com
Plantsville, CT 06479

Supplier of liturgical furnishings & art: complete range of restoration services, design to final decoration; baptismal fonts, mural restoration, statues, tile & wood flooring, custom doors & millwork.

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CONRAD SCHMITT STUDIOS
800-969-3033; Fax: 262-786-9036
www.conradschmitt.com
New Berlin, WI 53151

Creator, conservator & restorer of decorative painting: stained & art glass; ornamental plaster work & ceilings; gilding; murals, mosaics & statuary; for public & religious buildings; since 1889.

SEE OUR AD ON PAGE 73, BACK COVER.



**GERALD SICILIANO STUDIO
DESIGN ASSOCIATES**
718-636-4561; Fax: 702-442-7847
www.geralsicilianostudio.com
Brooklyn, NY 11215

Custom fabricator of fine art: liturgical sculpture, architectural details, capitals, fountains, fireplaces & mantels; bronze, granite, marble & stone; interior & exterior; repair & restoration; studio & fieldwork; 30 years of experience.



HUNT STUDIOS
415-401-7745; Fax: 415-373-4498
www.huntstonecarving.com
San Francisco, CA 94124

Full-service sculptural studio: figurative, ornamental & decorative carving & sculpture; restoration & conservation; ecclesiastical & monumental projects; custom maquette creation; public art commissions.



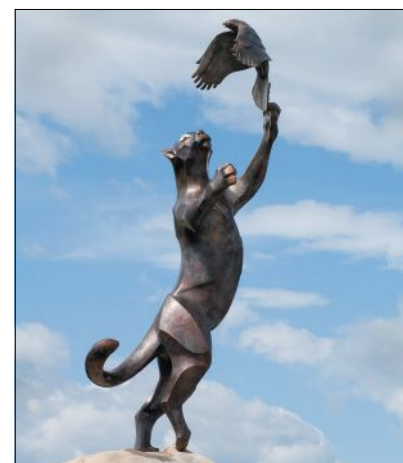
KIRCHER & ASSOCIATES, INC.
719-672-3063
www.kirchersculpture.com
Jaroso, CO 81138

Custom creator of expressive, figurative & liturgical bronze sculpture: monumental, life-size & smaller; crucifixes, saints, angels, Stations of the Cross & more; found in collections & churches around the world.



**MARCEL MACHLER CARVINGS
AND SCULPTURES**
909-337-9449
www.mmcarvings.com
Twin Peaks, CA 92391

Designer & supplier of hand-carved architectural elements: mantels, fountains, door surrounds & sculpture; Vicenza limestone; installation services.



ROSETTA STUDIO
970-667-6265; Fax: Same as phone
www.rosettasculpture.com
Loveland, CO 80537

Sculpture studio: stylized representational bronze sculpture of animal subjects; all sizes; for public, corporate & private placement & commissions.

Grand Portal: Clear Creek Abbey

Made to Last a Thousand Years.
Andrew Smith: Capitals, Lintel - George Carpenter: Tympanum
AndrewWilsonSmith.com



SWIATEK STUDIOS
716-597-6683
www.swiatekstudios.com
Buffalo, NY 14210

Restoration services: for churches & historical landmarks; decorative painting, statue restoration, brass plating, stained-glass restoration; murals, stenciling, faux finishes, gilding, marbling, carpentry, trompe l'oeil & decorative plaster.

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WALTER S. ARNOLD, LLC
847-568-1188
www.stonecarver.com
Elgin, IL 60120

Sculptor: classically trained carver & sculptor; traditional & innovative works in stone & marble; sculpture, fountains, fireplaces & gargoyles.



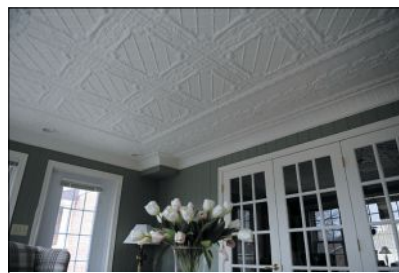
ABOVE VIEW INC.
414-744-7118; Fax: 866-728-5586
www.aboveview.com
Milwaukee, WI 53221

Supplier of ornamental plaster ceiling tile made in US: Each 2x2-ft. tile drops into standard 15/16-in. T-bar grid; tile is non-toxic, non-combustible & bio-degradable; more than 70 standard designs; custom capabilities; since 1984.



AMERICAN TIN CEILINGS
888-231-7500; Fax: 941-359-8776
www.americantinceilings.com
Bradenton, FL 34203

Manufacturer of tin panels: for ceilings, backsplashes, wainscoting & walls; multiple installation methods for any ceiling substrate including SnapLock™ tiles that screw directly into drywall; 35+ patterns in 50+ colors.



BRIAN GREER'S TIN CEILINGS
519-743-9710; Fax: 519-570-1447
www.tinceiling.com
Petersburg, ON N0J1B0 Canada

Supplier of decorative tin ceiling panels: tin, copper, brass, chrome & pewter finishes on 2x2-ft. panels; can be painted or left bright tin; moldings, fillers & cornices available.



CHELSEA DECORATIVE METAL
713-721-9200; Fax: 713-776-8661
www.tinman.com
Houston, TX 77074

Manufacturer of pressed-tin ceiling & wall panels: tin-plated steel has shiny silver finish, can be painted with oil-based paint; 3-, 6-, 12- & 24-in. patterns ranging from Art Deco to Victorian; easy-to-install 2x4-ft. sheets.



JP WEAVER COMPANY
818-500-1740; Fax: 818-500-1798
www.jpweaver.com
Glendale, CA 91201

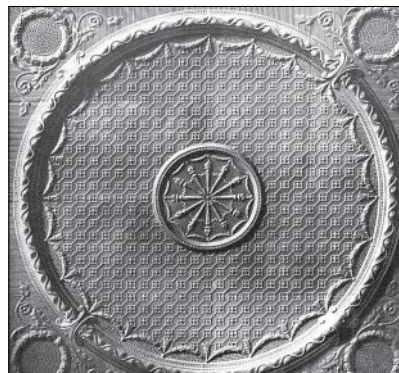
Over 8,000 types of molded ornaments cast from carvings. Products are pliable and will contour and self-bond to any sealed surface such as mirror, plaster, drywall, wood, metal, ceramic. Scaled-design books (1/4 in. = 1 in. scale).

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941-723-2288; Fax: 941-729-1470
www.metalceilingexpress.com
Palmetto, FL 34221

Manufacturer of ceilings: ornamental; decorative painting & faux finishes; architectural, standard & custom sheet metal.



W.F. NORMAN CORP.
800-641-4038; Fax: 417-667-2708
www.wfnorman.com
Nevada, MO 64772

Manufacturer of sheet-metal ornament: hundreds of stock designs; cornices, moldings, brackets, pressed-metal ceilings, roofing, siding, finials & more; zinc, copper & lead-coated copper; duplication from samples or drawings.

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WOOLEN MILL FAN CO.
717-382-4754; Fax: 717-382-4275
www.architecturalfans.com
New Park, PA 17352

Manufacturer of decorative ceiling fans: historic & new designs; belt-&-pulley models & beltless single-motor units; iron, bronze & aluminum castings.

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Annual Guide Book

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architecturalfans@gmail.com
www.architecturalfans.com

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WOOD & METAL DOORS



ARCHITECTURAL COMPONENTS

413-367-9441; Fax: 413-367-9461
www.architecturalcomponentsinc.com
 Montague, MA 01351

Manufacturer of reproduction & custom wood windows & doors: true-divided lites with insulated glass; wood-framed storm sash & screens; renovation & restoration projects & new construction; paneled walls & storefronts; catalog \$5.

SEE OUR AD ON PAGE 69.



CAMBEK DESIGNER DOORS

800-241-0525; Fax: 715-426-4999
<https://cambek.com>
 River Falls, WI 54022

Manufacturer of handcrafted garage doors & complementary entrance ways, shutters & garden gates: western red cedar, mahogany & other species; specialty glass, decorative hardware, metals, stone & other innovative materials.



CRITTALL WINDOWS, LTD.

011-44-1376530800;
 Fax: 011-44-1376530801
www.crittall-windows.com
 Witham, Essex CM8 3UN U.K.

Manufacturer of steel window & door systems: single hung, casement, pivot, awning, projecting, fixed lite & round top; historical restoration & renovation; minimum maintenance; custom shapes & sizes; recycled/recyclable steel content.



HISTORIC DOORS

610-756-6187; Fax: 610-756-6171
www.historicdoors.com
 Kempton, PA 19529

Custom fabricator of wood windows & doors: casing; circular & crown moldings; complete entryways; wood storefronts; restoration & period-style construction.

SEE OUR AD ON PAGE 21.



HISTORICAL ARTS & CASTING

800-225-1414; Fax: 801-280-2493
www.historicalarts.com
 West Jordan, UT 84081

Designer & custom fabricator of ornamental metalwork: doors, windows, hardware, stairs, balustrades, registers, fences, lighting, gutters, columns, weather-vanes, snow guards, cupolas, planters, fireplace tools & more; iron, bronze, aluminum & steel; restoration services.

SEE OUR AD ON PAGE 19.



HOPE'S WINDOWS, INC.

716-665-5124; Fax: 716-665-3365
www.hopeswindows.com
 Jamestown, NY 14702

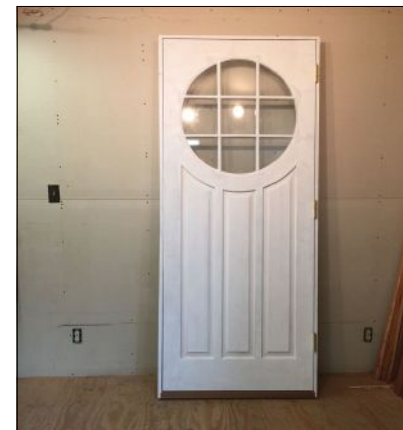
Manufacturer of custom-designed windows & doors: handcrafted, hot-rolled, solid-steel & solid-bronze window & door systems.



JACK WALLIS CUSTOM DOORS & STAINED GLASS

270-489-2613; Fax: 270-489-2187
www.jackwallisdoors.com
 Murray, KY 42071

Manufacturer of solid-wood doors, sidelites, transoms & turnkey entryways: Victorian carved & stained-glass doors; blind mortise-&-tenon construction; stained, beveled & leaded glass; stock & custom; ships anywhere.



JIM ILLINGWORTH MILLWORK

315-232-3433
www.jimillingworthmillwork.com
 Adams, NY 13605

Manufacturer of custom wood windows, doors & moldings: for homes & historic buildings; matches any existing wood windows, doors, moldings; custom millwork.



KINGSLAND ARCHITECTURAL MILLWORK - DOORS

860-542-6981; Fax: 860-542-1752
www.kinglandcompany.us
 Norfolk, CT 06058

Manufacturer of custom-designed entryways: doors, jambs & thresholds; Honduras mahogany; single glass, insulated glass, true-divided lites, leaded-glass sidelites & transoms; screen & storm doors; removable screen porch enclosures.



KOLBE WINDOWS & DOORS

800-955-8177; Fax: 715-845-8270
www.kolbewindows.com
 Wausau, WI 54401

Manufacturer of windows & doors: traditional details; extruded aluminum-clad, roll-formed aluminum-clad, wood & vinyl energy-efficient windows & doors; fiberglass doors. See Our Ad in the Calendar.



LOUIS HOFFMAN CO.

262-251-7060; Fax: 262-251-7123
www.louishoffmann.com
 Menomonee Falls, WI 53051

Manufacturer of metalwork: entryways, storefronts, grilles, railings, ornament, balustrades, stairs & more.



MARVIN

888-537-7828; Fax: 651-452-3074
www.marvin.com
 Warroad, MN 56763

Manufacturer of wood, aluminum clad and fiberglass windows and doors; all products made-to-order; offer specialty and custom sizes; expertise in historic replication. Provide residential, replacement, coastal and commercial window and door solutions.

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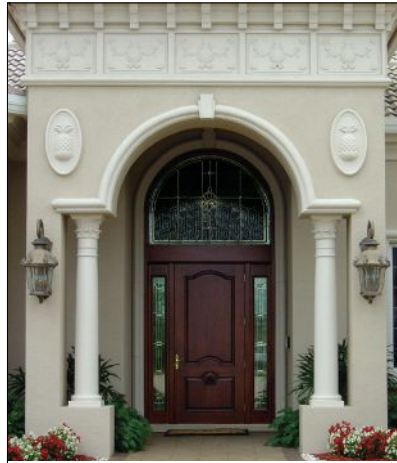
PARRETT WINDOWS & DOORS
 800-541-9527; Fax: 877-238-2452
www.parrettwindows.com
 Dorchester, WI 54425

Manufacturer of custom, quality wood & aluminum-clad windows & doors: vast array of options, numerous wood species & complete finishing capabilities; historical replications; screen doors, casings & moldings.



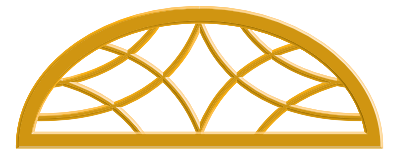
ROBINSON IRON CORP.
 800-824-2157; Fax: 256-329-8960
www.robinsoniron.com
 Alexander City, AL 35010

Designer & installer of custom metalwork: fountains, columns, fences, doors, railings, sculpture, benches, grilles, cresting, street lighting & gazebos; wrought iron/steel, aluminum, bronze & cast iron; historical restoration.



SIGNATURE DOOR CO.
 800-741-2265

www.signaturoor.com
 Altoona, PA 16602
 Manufacturer of wood and steel custom entryways featuring decorative glass (beveled, sandcarved) and brass or zinc came.



ARCHITECTURAL COMPONENTS

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architecturalcomponentsinc.com



STEEL WINDOWS & DOORS USA
 203-579-5157; Fax: 203-579-5158
www.steelwindowsanddoors.com
 Stratford, CT 06615

Supplier of steel, bronze, stainless steel & corten windows & doors: hot rolled, cold formed, thermally broken, fire rated; custom colors; variety of finishes available.



VINTAGE DOORS
 800-787-2001; Fax: 315-324-6531
www.vintagedoors.com
 Hammond, NY 13646

Manufacturer of custom exterior & interior wood doors: door hardware, screen doors & storm doors; traditional, porch enclosures, Craftsman & Victorian Styles; solid wood & glass panels available.



VINTAGE MILLWORK AND RESTORATION
 717-687-0292; Fax: 717-687-3510
www.vintagemillworkrestoration.com
 Paradise, PA 17562

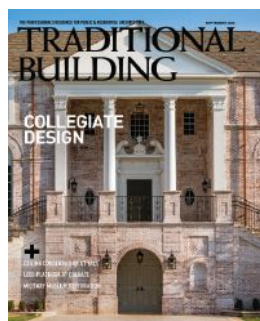
Offers custom-milled front doors, interior doors, garage doors, barn doors, and custom hardware. Specialties include custom trim work, custom grid doors, true or simulated divide light doors, and engineered doors. Made in the USA in Lancaster, PA.
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WIEMANN METALCRAFT
 918-592-1700; Fax: 918-592-2385
www.wmcraft.com
 Tulsa, OK 74107

Designer, fabricator, finisher & installer of fine quality custom ornamental metalwork: railings, fences, gates, custom, hot-rolled steel doors & windows, lighting, grilles, bronze & aluminum entry doors; all cast- & wrought-metal alloys, finishes & architectural styles; since 1940.

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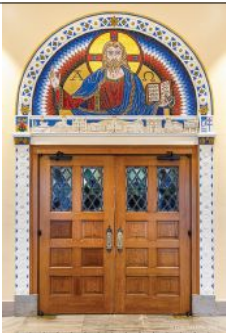


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DECORATIVE PAINTING, MURALS & MOSAICS



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SCULPTURE STUDIO**

574-315-4426
www.AndrewWilsonSmith.com
Dunmore, PA 18512

Designer, fabricator and installer of fine art & architectural sculpture; materials include but not limited to bronze, plaster, stone. Other specialties include natural stone mosaics. Established 2006, projects for ecclesiastical, institutional.

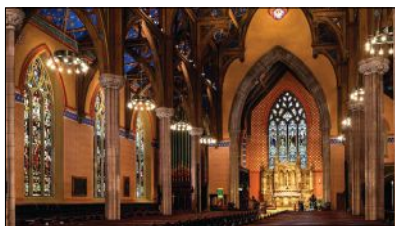
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CONRAD SCHMITT STUDIOS
800-969-3033; Fax: 262-786-9036
www.conradschmitt.com
New Berlin, WI 53151

Creator, conservator & restorer of decorative painting: stained & art glass; ornamental plaster work & ceilings; gilding; murals, mosaics & statuary; for public & religious buildings; since 1889.

SEE OUR AD ON PAGE 73, BACK COVER.



**EVERGREENE ARCHITECTURAL
ARTS, INC.**

212-244-2800; Fax: 212-244-6204
www.evergreene.com
Brooklyn, NY 11232

Since 1978, EverGreene Architectural Arts has provided award-winning design and fabrication, conservation and restoration services for many of the world's most significant buildings and objects. Expertise includes: murals, decorative painting, gilding, plaster, wood, metal, stone, mosaics, new design, conservation, restoration, ecclesiastical, institutional, public, commercial projects; offices in Brooklyn, Chicago, Washington DC & Los Angeles.

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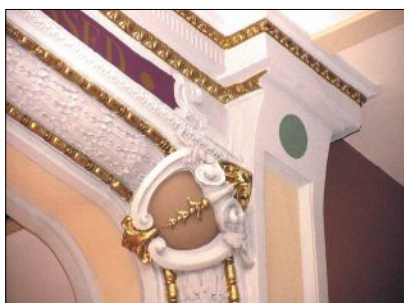


**JOHN CANNING CONSERVATION
& PAINTING STUDIOS**

203-272-9868; Fax: 203-272-9879
www.JohnCanningCo.com
Cheshire, CT 06410

Restorer, conservator & designer of decorative finishes, ornamental plaster & wood: historic paint analysis; plaster consolidation & stabilization; decorative paint, murals, interior & exterior gilding, wood graining, metal & stone cleaning.

SEE OUR AD ON PAGE 73,
INSIDE FRONT COVER.



JOHN TIEDEMANN, INC.

877-600-2666; Fax: 201-991-3419
www.johntiedemann.com
North Arlington, NJ 07031

Restorer of interior elements: interior painting & design, liturgical renderings, decorative granite flooring, faux finishes, murals & frescoes, gilding, art glass, fine art, paint & plaster analysis, historic analysis & testing.



**LYNNE RUTTER MURALS
& DECORATIVE PAINTING**

415-282-8820
www.lynnerutter.com
San Francisco, CA 94107

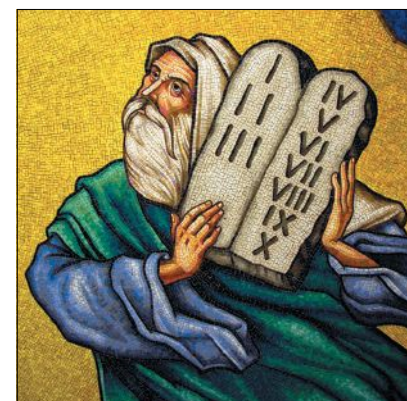
Creator of fine art murals: trompe l'oeil & wall & ceiling murals; painted onsite or on canvas to be installed anywhere; church work; works nationally & internationally.



**R. ALDEN MARSHALL
& ASSOCIATES LLC**

717-805-3114
www.raldenmarshall.com
Galveston, TX 77551

A material science laboratory & preservation studio for the conservation of art & architecture including monuments, sculptures, paintings & murals; much more. Projects include national historic sites as well as ecclesiastical commissions.



RAMBUSCH DECORATING CO.

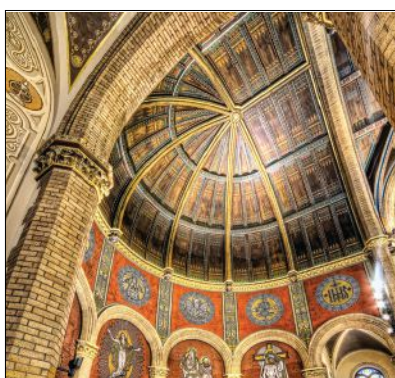
201-333-2525; Fax: 201-433-3355
www.rambusch.com
Jersey City, NJ 07304

Designer & fabricator of public & ecclesiastical art & stained glass: altars, ambos, arks, crosses & more; decorative painting; murals & mosaics; lighting; commercial environments; since 1898.



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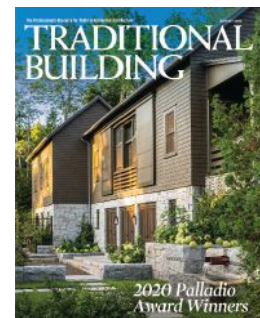


SWIATEK STUDIOS

716-597-6683
www.swiatekstudios.com
Buffalo, NY 14210

Restoration services: for churches & historical landmarks; decorative painting, statue restoration, brass plating, stained-glass restoration; murals, stenciling, faux finishes, gilding, marbleizing, carpentry, trompe l'oeil & decorative plaster.

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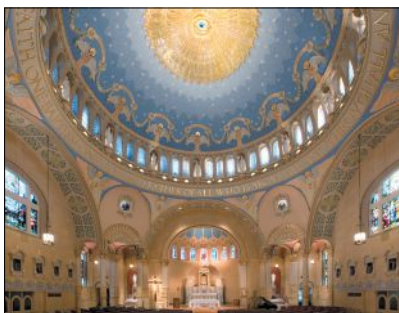
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517-592-9030; Fax: 517-592-4511
www.brosamersbells.com
Brooklyn, MI 49230

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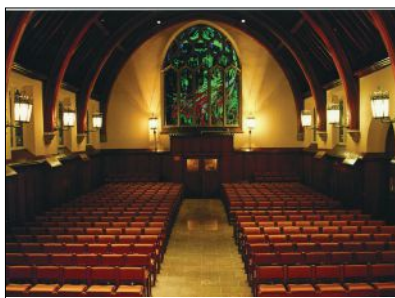
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CONRAD SCHMITT STUDIOS
800-969-3033; Fax: 262-786-9036
www.conradschmitt.com
New Berlin, WI 53151

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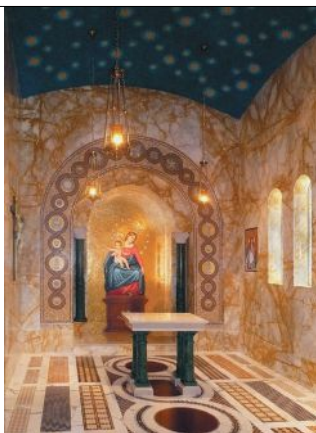
Manufacturer of hardwood chairs: for libraries, dining halls, chapels & function rooms; traditional & contemporary styles; stackable.

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www.kingrichards.com
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Jersey City, NJ 07304

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SEE OUR AD ON PAGE 5, 75.



ROHN & ASSOCIATES DESIGN
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www.rohndesign.com
Pittsburgh, PA 15226

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ST. LOUIS ANTIQUE LIGHTING CO.
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www.slalco.com
Saint Louis, MO 63130

Manufacturer & supplier of architectural lighting: all styles; historical reproductions & custom lighting; restoration services; commercial & ecclesiastical projects.

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SWIATEK STUDIOS
716-597-6683
www.swiatekstudios.com
Buffalo, NY 14210

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GRAND LIGHT
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www.grandlight.com
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Restorer of historic lighting fixtures & manufacturer of custom lighting fixtures: metal fabrication, glass fabrication, metal finishing, polishing, painting, welding, abrasive blasting; historical replication & reproduction.

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HERITAGE METALWORKS
610-518-3999; Fax: 610-518-7264
www.hmwp.com
Downingtown, PA 19335

Foundry, blacksmith shop and custom metal fabricator offering historically accurate and custom-designed lighting, architectural hardware, and designer-envisioned metalwork including interior and exterior gates & railings.

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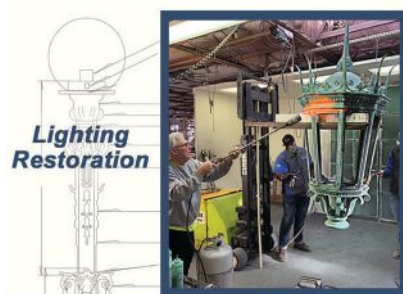


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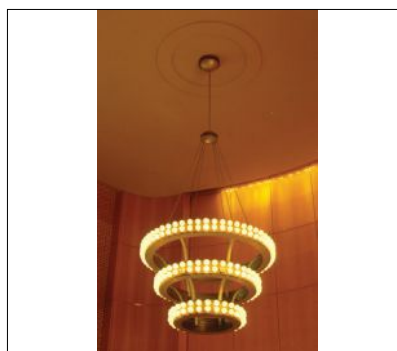
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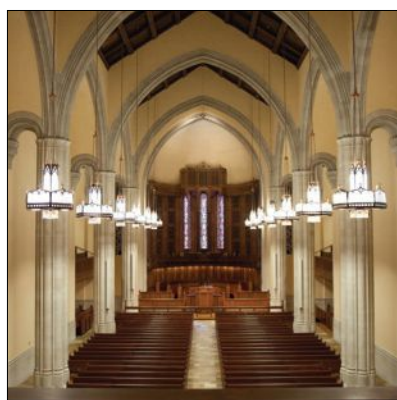
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www.houseofantiquehardware.com
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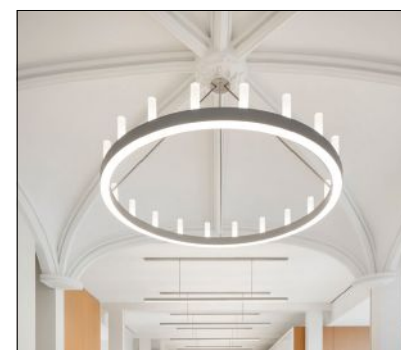
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MANNING LIGHTING, INC.
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www.manningltg.com
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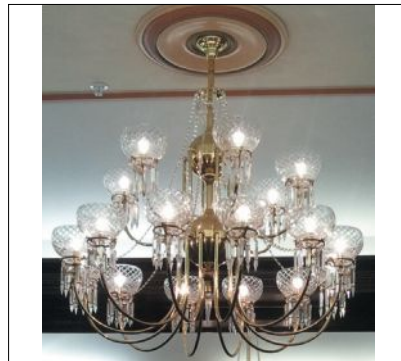
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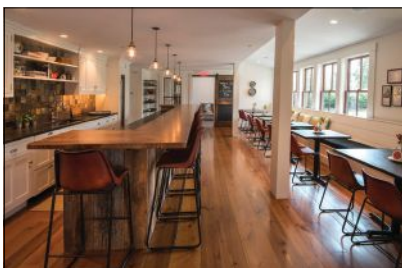
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Barre, VT 05641

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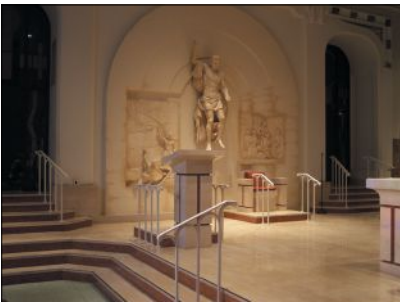
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 West Jordan, UT 84081

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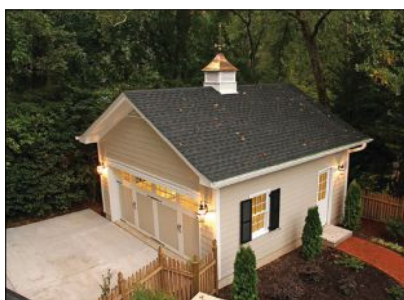
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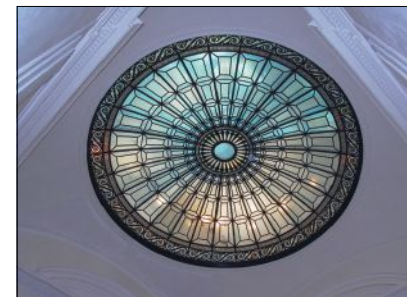
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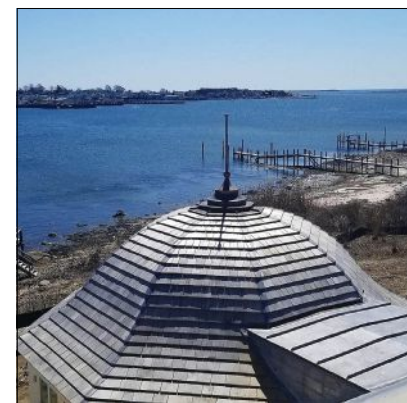


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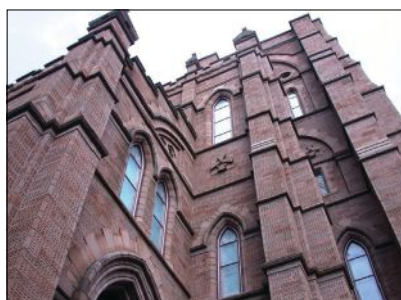
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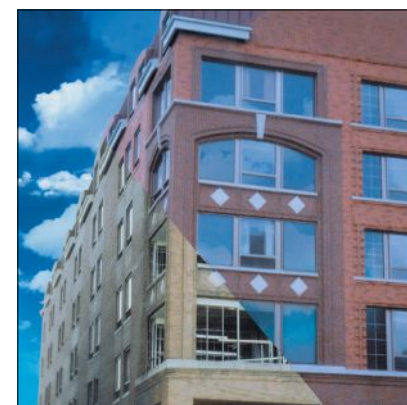
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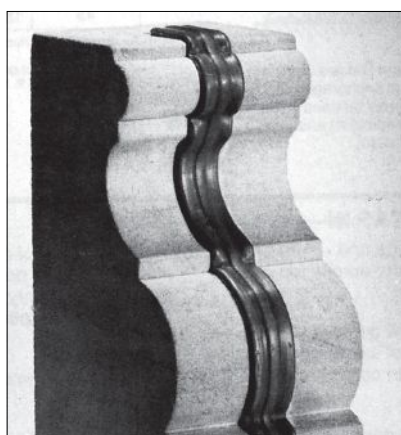
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REPAIRING HISTORIC WOODEN WINDOWS: WHAT ARCHITECTS NEED TO KNOW

1 AIA H/S/W Learning Unit

Speaker:

Brent Hull, Hull Millwork, Fort Worth, TX



ON DEMAND

PROFILE MATTERS: TRADITIONAL MOULDINGS AND MILLWORK TODAY

1 AIA Learning Unit

Speakers:

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



ON DEMAND

TIMBER FRAMING IN AMERICA 1620-2020

1.5 AIA H/S/W Learning Units

Speakers:

Ben Brungraber, Ph.D, P.E. and co-founder, Fire Tower Engineered Timber, Delran, NJ and Jan Lewandoski, Timber Frammer and Owner, Restoration and Traditional Building, Greensboro Bend, VT



ON DEMAND

GLASS & SAFETY

1 AIA H/S/W Learning Unit

Speaker:

Kyle Sword, Business Development Director, Pilkington North America, Toledo OH



ON DEMAND

REMOVING GRAFFITI: A PANEL DISCUSSION

1.5 AIA Health/Safety/Learning Units

Speakers: Rachel Adler, Jason Church, Mary F. Striegel, Sarah Polzin, Lindy Gulick National Park Service



ON DEMAND

WORKING WITH CUSTOM CABINET MAKERS: MODERN KITCHENS IN TRADITIONAL SETTINGS

1 AIA H/S/W Learning Unit

Speaker:

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



ON DEMAND

WINDOWS AND HISTORIC HOMES: REPAIR, REPLACE AND NEW ADDITIONS

1 AIA H/S/W Learning Unit

Speaker:

Charles "Chick" McBrien, Marvin Windows and Doors



ON DEMAND

TERRA COTTA TILE: COLOR SELECTION AND MATCHING

1 AIA H/S/W Learning Unit

Speaker: Alicia Cordle,

Ceramic Engineer, Ludowici

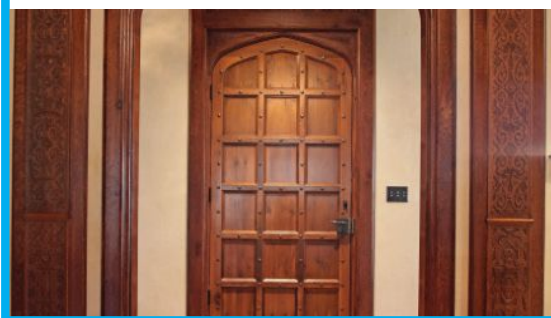


ON DEMAND

TRADITIONAL DOORS: A MASTER CLASS ON CRAFT, FORM, AND FUNCTION

1.25 AIA H/S/W Learning Units

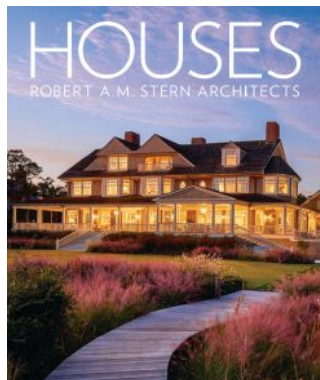
Speaker: Brent Hull, Hull Historical, Inc.



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Extraordinary Houses



HOUSES

BY ROBERT A.M. STERN ARCHITECTS

Monacelli Press 2021

424 pages; color



LEFT This new house in Singapore, which was designed in the traditional “black and white” bungalow-style of the region, is situated across from the National Botanic Gardens in the most prestigious neighborhood in town.

ABOVE The grounds feature a sandstone entry to both the main house and guest house, which are both built around a central courtyard and covered loggias so you can be outside in the regional heat.

MASTERS OF TRADITIONAL DOMESTIC ARCHITECTURE

the caliber of Robert A.M. Stern Architects need not publish any further proof of their command. Nonetheless the firm’s latest book *HOUSES* continues to show how, in the hands of talented designers, established concepts can be put to work in fresh ways. A tour of the last decade’s projects led by partners Roger H Seiffter, Randy M. Correll, Grant F. Marani, and Gary L. Brewer, the book is lean on copy but flush with rich color photographs and drawings confirming that, in the words of one partner, “some ideas only get better with time.”

Needless to say, the phrase Shingle style comes up a lot and why not? Stern and company, who have been reaching back into history to “connect the past with the present” since the 1980s, all but singlehandedly recognized the beauty and utility of the 1880s Shingle-style house and how it could satisfy the tastes and lifestyles of the late 20th century. As becoming and beloved as are the strictly classical historic house styles—say Greek Revival or even Georgian Colonial

Revival—their rigid geometry can be a reach for the needs of modern homeowners. How to easily expand with a later addition? Where do you hide a mud room? The flexible, asymmetrical, non-style of Shingle offers more opportunities.

Moreover, the heyday of the Shingle-style house overlaps with the rise of what historian Dr. Alan Gowans, writing for *Old-House Journal* in 1986, explored as the comfortable house in a book of the same name. During this sea change, residential architecture became less a statement of social status or ideology (think early 19th-century Classical Revival Temple houses) and more about fulfilling domestic needs. Houses no longer stood for what they are, but what they’re made to do.

In *HOUSES*, the partners make no secret of their admiration for the carriage trade architects of a century ago. Wilson Eyre, William Ralph Emerson, Harrie T. Lindeberg, Edwin Lutyens, C.F.A. Voysey, John Calvin Stevens and, of course, McKim, Mead & White, are all invoked along with their pet details. However, this is not mere nostalgia or trotting out the totems of Gilded Age

resort architecture. Several of these houses show how the historic architectural vocabulary helps solve some very real 21st century problems, such as storm surges, zoning restrictions on both height and lot, dune preservation, and protected woodlands—all issues that MM&W, themselves prolific channelers of historic architecture, probably couldn’t imagine.

Of the 17 projects, not all are new builds (there’s a clutch of remodelings) or even houses (four are apartments or penthouses). What’s more, the geographic range extends beyond the happy hunting ground of Shingle, the Northeast coast, to Florida, Michigan, California, Virginia, and even Singapore, with an equal diversity of styles from Hollywood Regency to the Black-and-White Bungalows of the orient.

Those still hoping for the second coming of Stanford White, with his tantalizing mix of eclectic materials and Far East influences, will have to wait a little longer. In the meantime, anyone interested in a master class on traditional house design is sure to find *HOUSES* required reading.

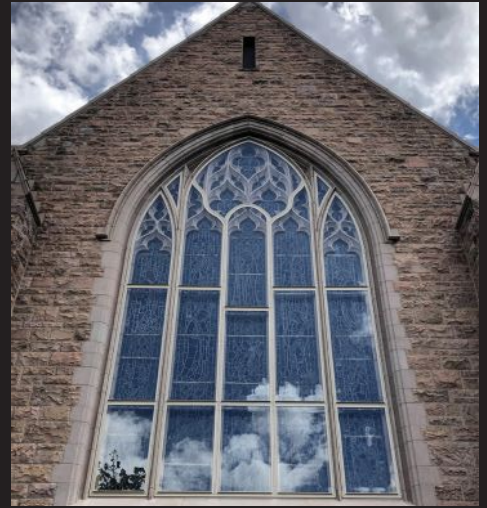
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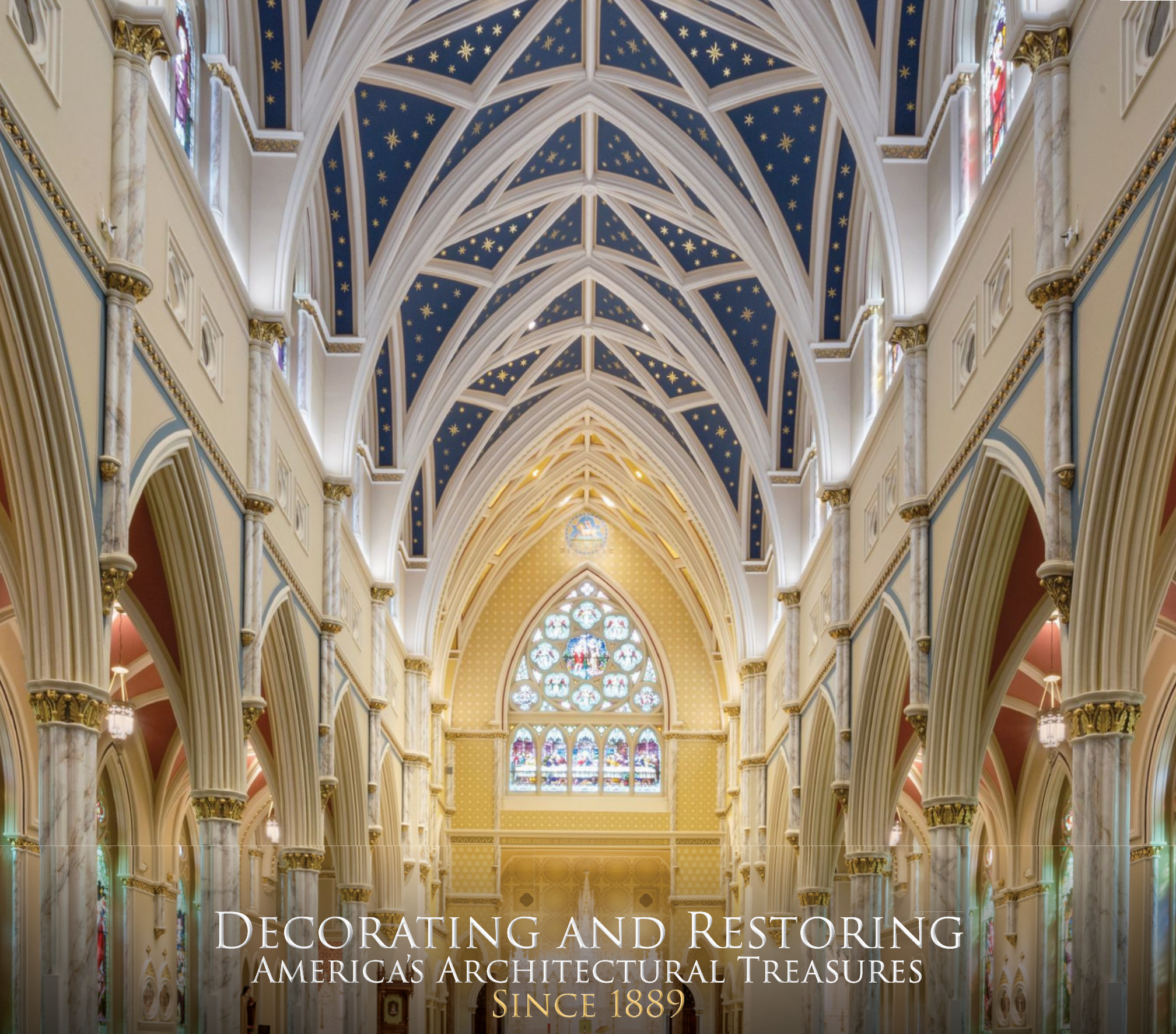


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