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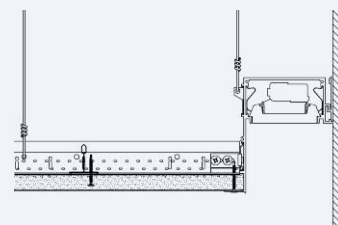
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SENIOR EDITOR Leopoldo Villardi, villardil@bnpmedia.com

SENIOR NEWS/DIGITAL EDITOR Matt Hickman, hickmanm@bnpmedia.com

ASSOCIATE DIGITAL EDITOR Ilana Herzig, herzigi@bnpmedia.com

ASSISTANT EDITOR Pansy Schulman, schulmanp@bnpmedia.com

CONTRIBUTING PRODUCTS EDITOR Sheila Kim, sheilakim.nyc@gmail.com

COPY EDITOR Anna Shapiro

ART DIRECTOR Michael T. Powell, powellm@bnpmedia.com

ASSISTANT ART DIRECTOR Sarah Wojno, wojnos@bnpmedia.com

**CONTRIBUTING ILLUSTRATOR,
PRESENTATION DRAWINGS** Peter Coe

EDITOR AT LARGE Cathleen McGuigan

CONTRIBUTING EDITORS Sarah Amelar, Fred A. Bernstein,
Beth Broome, James Gauer, Blair Kamin,
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David Cohn, Chris Foges

CONTRIBUTING PHOTOGRAPHERS Iwan Baan, Roland Halbe

ARCHITECTURAL RECORD (ISSN: Print 0003-858X Digital 2470-1513) May 2023, Vol. 211, No. 05. RECORD is published 12 times annually, monthly, by BNP Media II, LLC., 2401 W. Big Beaver Rd., Suite 700, Troy, MI 48064-3333. Telephone: (248) 362-3700, Fax: (248) 362-0317.

Annual rate for print: US \$44.99, Canada \$84.99, and Foreign \$149.00. Annual rate for digital: \$19.00. Single Copy sales: \$12.00.

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Periodicals Postage Paid at Troy, MI, and at additional mailing offices.

POSTMASTER: Send address changes to: ARCHITECTURAL RECORD, P.O. Box 1514, Lincolnshire, IL 60069.

CANADA POST: Publications Mail Agreement #40612608. GST account: 131263923. Send returns (Canada) to IMEX Global Solutions, P.O. Box 25542, London, ON N6C 6B2.

CHANGE OF ADDRESS: Send old address label along with new address to ARCHITECTURAL RECORD, P.O. Box 1514, Lincolnshire, IL 60069.

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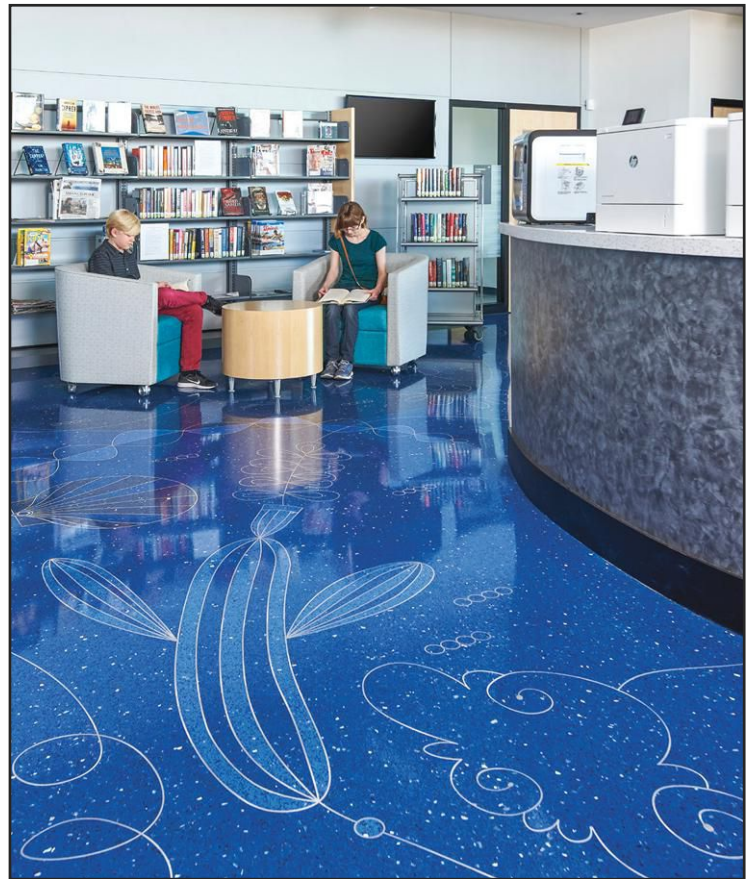
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WI, MN, IA, IL, MO, MS, NE, FL, GA, SC, AL, KS, INTERNATIONAL: Chris Wilson
(248) 819-0751, wilsonc@bnpmedia.com

WORKFORCE/RECRUITMENT:

Diane Soister
(646) 849-7137, Fax: (248) 502-2046, soisterd@bnpmedia.com

PRODUCTION MANAGER:

Kristen Carpenter
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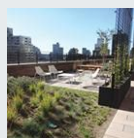
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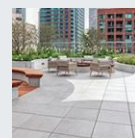
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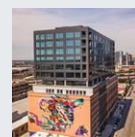
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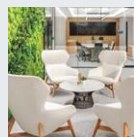
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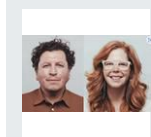
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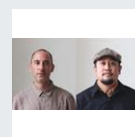
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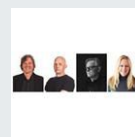
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Second Acts

“I WAS EDUCATED during Gropius’s tenure at Harvard—when Bauhaus Modernism reigned. We genuinely believed that function came first. And I believe, if the function changes, then the building has to change as well.” These were the words of Edward Larrabee Barnes to Michael Maltzan more than 20 years ago when Maltzan—whose firm was still quite young at the time—embarked on a decades-long makeover of Barnes’s design for the Hammer Museum in Los Angeles. That project culminated with the March opening of a new entrance and new galleries (page 42).

While the changes at the Hammer Museum are subtle—it remains a museum, just adapted to the current times—other buildings in this issue have undergone complete transformations. Not far from the Hammer, in Orange, California, a former orange-packing facility has been reimaged by Lorcan O’Herlihy Architects as a center for dance. The intervention in an historic warehouse, the last of its kind in what used to be a center of the citrus industry, lets users experience the 1918 structure in unexpected ways under its dramatic sawtooth roof (page 62 and on the cover).

In the heart of the Old Town in Vilnius, a UNESCO World Heritage Site in Lithuania’s capital, Studio Seilern Architects, a London-based firm, gave new life to an abandoned 18th-century hospital comprising several derelict buildings, now a mixed-use complex (page 56). Elsewhere in Europe, old buildings and neighborhoods are being incorporated into new structures. In Groningen, the Netherlands, young architects Donna Van Milligen Bielke and Ard de Vries tie their new building for performance spaces into the existing fabric of a former gasworks (page 86). And in Trofa, Portugal, José Carlos Nunes de Oliveira of NOARQ literally wraps his new town hall around an old industrial building (page 68).

It’s not just buildings that have second acts. Sometimes architects do too, in a manner of speaking. Deborah Berke talks to **RECORD** about renaming her firm TenBerke (page 27). Interestingly, her firm, which is so well known for its adaptive-reuse designs, has just completed its largest ground-up project to date—new residential colleges at Princeton University (page 74). Berke remains committed, of course, to preservation, as are many architects who are well versed in the advantages of reusing existing buildings rather than tearing them down.

Fortunately, this sustainable approach continues to make headway beyond the profession. In April, the Biden administration announced a \$450 million plan intended to kick-start a second act for the U.S. economy by reusing existing fossil-fuel-powered sites and mine lands for renewable-energy initiatives. The effort was inspired by Biden’s visit last summer to Brayton Point, a former coal-fired power plant in Somerset, Massachusetts, that is shifting to offshore wind power. (Last year, for the first time, wind generation supplied more than 10 percent of the nation’s electricity.)

As builders, architectural professionals are particularly aware of the climate crisis. This issue’s continuing-education story (page 109) focuses on concrete, which, according to some estimates, is responsible for 11 percent of global carbon emissions. The article highlights strategies that could reduce this footprint and even transform the ubiquitous material into one that is carbon negative. Lastly, **RECORD** will pursue this and other ways of building better in our first-ever sustainability summit on June 20 in Boston (see ad on page 53 for more information). We hope you can join us!



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HOUSE of the Month

ATELIER KASTELIC BUFFEY ENGAGES NATURE AND THE ONTARIO VERNACULAR FOR A RUSTIC LAKESIDE GETAWAY. **BY ALEX BOZIKOVIC**



WHEN THE FIRM Atelier Kastelic Buffey (Akb) began work on a vacation home north of Toronto, its clients' first priority was to engage with views of nature. And when you walk into the 7,500-square-foot house, a view is the first thing you see: a perfect slice of a grove of conifers, revealed by a square window and framed by protruding walls of weathered cedar.

Such is the character of this house in Ontario's Muskoka region, designed as a getaway for a family of five. The design brings the outdoors in but balances the wilderness with built spaces that are carefully proportioned, precisely detailed, and rigorously minimalist.

The house draws inspiration from the rustic building tradition of Muskoka, where affluent city-dwellers have been building lakeside "cottages" for a century. On the exterior, Akb employed rough-sawn cedar boards and cedar shakes, common materials, which are already fading to a gray that matches the site's pre-Cambrian granite.

Roughly L-shaped in plan, the house consists of a bedroom wing inland on the east and a two-story gabled volume on the west,



The L-shaped house (above) overlooks a lake, with the communal areas and deck (top) parallel to the shore.



THE COMMUNAL SPACE, clad in smoked European oak, includes a kitchen (above), living/dining area (top), and screened-in porch (opposite), flanked by fireplaces at each end.

with a rec room, gym, and guest bedrooms on the lower level, and a living/dining area, kitchen, and screened-in porch parallel to the shoreline on the upper, main level. The latter features a deck overlooking the lake, sheltered by a deep roof overhang; Belgian-made glass doors, 20 feet long, can slide open on warm days to connect the house with the outdoors. Polished-concrete floors offer a hardy surface and, by retaining the sun's heat at night, contribute to the architects' passive heating and cooling strategy.

The form draws on tradition: gabled-roof structures are typical here, says Akb principal Kelly Buffey. But Buffey and her firm, co-founded in 2004 with her husband, Robert Kastelic, added a twist. "Instead of treating the gable roof as a planar element, as it typically was, we've turned it into a mass." The

ends of the gable are clad in the same cedar shingles as the roof, so that, from the exterior, the gable reads as solid and continuous—a Monopoly house resting atop the rectangular volumes of the house.

Below this roof, the living spaces and screened-in porch stretch out harmoniously under a wood-clad ceiling that follows its form. A linear kitchen runs along the leeward side. The line of the ceiling does not match the line of the roof above—it's offset in order to hit the central axis of the living room and porch, linking hefty concrete fireplaces at each end. The two gables are "intentionally different," Buffey says, "to create different experiences as read from the outside versus the inside."

This compositional effort—and the complex, hidden web of framing that bridges the two offset gables—is almost invisible to the



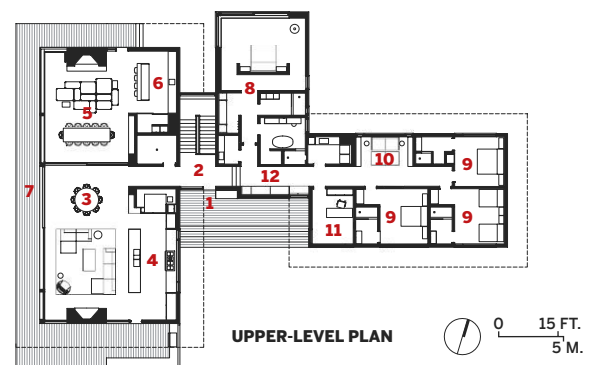
occupants of the house. But the house's relationship to the landscape is clearly perceptible. In Muskoka, bedrock is right at the surface, creating a craggy landscape; Buffey explains that the local tradition is to "perch" houses on top of the rocks. In this house, the bedroom wing is built low between them. A large window in the primary bedroom frames a close-up vignette of a granite outcropping sprinkled with hardy pines. "You really are in the landscape," Buffey asserts.

The interior finishes are, like the massing, deliberately modest. In the communal rooms, the walls and ceiling are wrapped in hand-brushed smoked European oak. This wood extends down the corridor into the bedroom wing, where the boards share a finish but vary in width. The result is "a field condition," Buffey says, rather than the consistent rhythm one might expect from wood paneling.

The four bedrooms, lounge, and office reflect a similar attention to texture. Buffey, who is trained as an interior designer as well as an architect, chose unpainted Venetian plaster for the walls and the ceilings. The subtly textured surface evokes that of the rock just outside the windows. "We do think about the things that your hand touches, and how you react to that psychologically," Buffey says.

For the bathrooms, Akb designed concrete vanities with integrated sinks. These, like the plaster walls, have slightly rough matte gray surfaces, enforcing the careful uniformity of the interior. But all the gray is balanced by handmade Mexican ceramic tiles that offer a subtle shimmer and a wavy, relaxed texture, very noticeable in a house where everything aligns. Here in the house's most intimate moments, the architecture displays its characteristic fine balance between rusticity and polish. ■

Alex Bozickovic is architecture critic at The Globe and Mail in Toronto.



- | | | |
|----------------------|------------------|---------------------|
| 1 ENTRANCE DECK | 5 SCREENED PORCH | 9 BEDROOM |
| 2 FOYER | 6 BAR | 10 LOUNGE |
| 3 LIVING/DINING AREA | 7 DECK | 11 OFFICE |
| 4 KITCHEN | 8 PRIMARY SUITE | 12 MUDROOM CORRIDOR |

Credits

ARCHITECT: Akb Architects — Kelly Buffey, design architect; Robert Kastelic, technical architect; Aaron Finbow, project architect

ENGINEERS: Moses Structural Engineers (structural)

GENERAL CONTRACTOR: HLD Muskoka

CONSULTANTS: Ashley Botten Design (interior design); Virginia Burt Designs (landscape)

SIZE: 7,500 square feet

COMPLETION DATE: December 2022

Sources

WINDOWS & DOORS: Reynaers

GLAZING: AGC; Pilkington

OPERABLE GLASS: NanaWall

INTERIOR WOOD: Moncer Specialty Flooring (walls & ceilings)

CONCRETE FLOORS: Düramen

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MAY 3, 2023

Landscape Architecture Webinar Symposium

11:00 AM EDT

Outdoor Amenities: Essential in Today's Architectural Designs

CREDITS: 1 AIA LU/HSW; 0.1 ICC CEU

This course will review the construction of basic types of on-grade and roof systems, as well as the range of hardscaping products including pavers, slabs and retaining walls, that are available to designers.



2:30 PM EDT

Reimagine the Outdoor Experience: Understanding Rooftop Deck Systems

**CREDITS: 1 AIA LU/HSW; 0.1 ICC CEU;
1 IIBEC CEH**

This course explores the features, surface materials, and design options for rooftop deck systems and provides an overview of recommended planning and installation guidelines.



MAY 10, 2023 @ 2:00 PM EDT

Inclusive Schools: Building Accessible Learning Environments

**CREDITS: 1 AIA LU/HSW;
*1 ADA STATE ACCESSIBILITY/
BARRIER-FREE; 0.1 ICC CEU**

The course will discuss the concept of universal design, which allows both able and non-able persons to have comparable experiences within a building.



*This webinar
is part of the
ADA Academy*



MAY 11, 2023 @ 2:00 PM EDT

Glass Entrances – A Review of Hardware, Codes, and Aesthetics

CREDITS: 1 AIA LU/HSW; 0.1 ICC CEU

This course covers current trends in glass entrance design and key considerations for hardware requirements in all types of buildings.



MAY 17, 2023 @ 1:00 PM EDT

Considering Cover Boards for Schools

CREDITS: 1 AIA LU/HSW; 0.1 ICC CEU

This course offers a better understanding of the value of a rigid coverboard in low-slope commercial and governmental roof assemblies, including schools.



MAY 25, 2023 @ 2:00 PM EDT

Operational Energy Basics for Sustainable Architectural Design

CREDITS: 1 AIA LU/HSW; 0.1 ICC CEU

This course will go through project lifecycle stages and whole lifecycle carbon assessments, operational and embodied carbon, before focusing on operational energy basics.



MAY 31, 2023 @ 2:00 PM EDT

Mid-Century Modern Revisited

CREDITS: 1 AIA LU/HSW; 0.1 ICC CEU

This lively and informative webinar will provide a brief history of the Mid-Century Modern (MCM) movement in the U.S.



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TRADE SHOW CEVISAMA

Canceled for two years—first for COVID, then the gas-price crisis—one of the world's most important ceramic fairs resurfaced this year. Accompanied by Tile of Spain—the brand of the Spanish Ceramic Tile Manufacturer's Association—Record traveled to Valencia, Spain, to check out the trends.

BY ANDREW AYERS



Castello

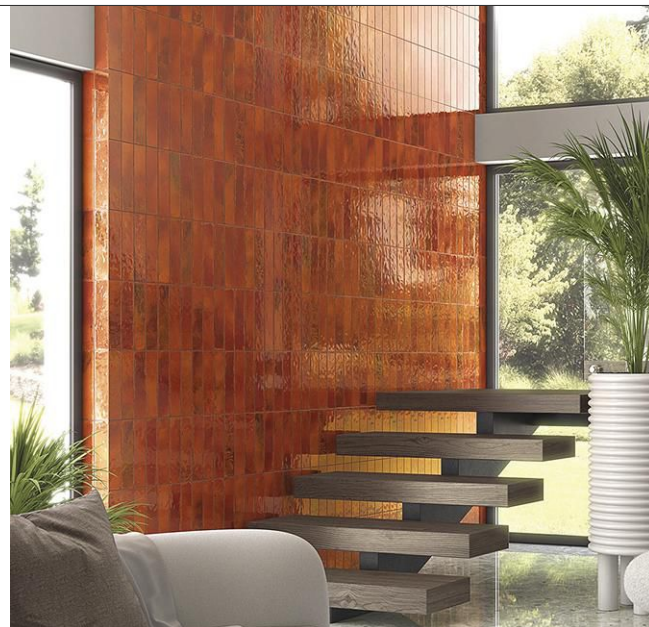
Released by the brand Harmony, this was perhaps the most architectural product at the fair. Designed by Madrid-based duo Alberto Bejerano and Patxi Cotarelo of Dsignio, these ceramic building blocks allow the construction of subtly striking room dividers or outdoor partitions. Available in gray, white, and terra-cotta, they arrest the eye yet allow the gaze through.

harmonyinspire.com



Concept

High-end manufacturer Keraben has a number of three-dimensional and textured finishes among its offerings, including this handsome model from its Concept series. The finish shown is from their Bleuemix range, which reproduces the effect of Belgian bluestone (a limestone with a high fossil content) and is available in gray (left) and taupe. keraben.com



Luca

A good 90% of the products shown at Cevisama 2023 featured imitation-marble, -stone, or -wood looks. If you prefer your ceramics to resemble ceramics, consider the eye-popping glazes of Luca by the Valencia-based Vives. Available in various textures, formats, and colors—including off-white, orange, and a blue eau-de-nil—the beautiful firing imperfections evoke the 1970s with their retro feel.

vivesceramica.com



Croccante

As its name suggests, this range from Castellón-based Arcana looks good enough to eat. Available in all sorts of pastel shades and patterns, these flat matte porcelain tiles with their terrazzo-nougat finish will imbue your interior with a Midcentury Modern feel—though the nostalgia is tempered by a light, contemporary touch. arcanatiles.com



Pop

Founded in 1992, Natucer specializes in extruded ceramics. Among their current offerings is the handsome Pop range, whose bold texture and strong colors will add punch to any kitchen or bathroom. Available in six tones (including ochre, left), they embody “the beauty of artisanal imperfection,” in the firm’s own words.

naturcer.es



Evoke

Digital printing was all the rage at Cevisama this year, though mostly used to mimic stone and wood. But, as Aparici’s Evoke (above) demonstrates, you can digitally print anything. Instantly distressed walls, anyone? Interestingly, the effect evaporates upon close inspection—it’s like zooming in on an Impressionist painting.

aparici.com

Sublime

Among the brands offering high-strength, large-format porcelain slabs is Museum, with a range of stone-effect finishes. So robust is their product, you can make furniture from it, imitating the beauty of marble without the cost or fragility of the real thing. Iceberg Camouflage White marble and Cliff Oreo Gray stone (right) are from Museum’s Sublime range.

museumsurfaces.com



Nuer

Produced by high-end brand Living, which turns 10 this year, the Nuer collection was among the most beautiful and original tile concepts on display during Cevisama 2023. Commissioned from Milan-based Japanese designer Kensaku Oshiro, the design is ingeniously simple: 60 x 120cm ridged slabs, with ridge surfaces glazed in different colors. The result: from one side you see one hue, from the other a completely different tone, and in some models more than one color at once in a subtly Op Art effect. Nuer is available in eight colorways such as sunset, marine, quartz, and fog.

livingceramics.com





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Pebble Collection

As its name implies, Belwith Keeler's new kitchen-hardware collection recalls the smooth surface and shape of a pebble to engage the user's sense of touch and provide a pleasing tactile experience. The collection comprises asymmetrical cabinetry knobs and pulls, both in two sizes, and appliance pulls in five sizes. All are available in five standard finishes.

belwith.com



RIVIO Collection

Gensler has collaborated with Formani on this line of ergonomic interior-door handles. A cutaway on the front of the cylindrical body allows the thumb and fingers to meet in a comfortable fashion, giving the user a good grip while presenting a pleasing sculptural contour. Available as a curved or 90° lever, RIVIO comes in stainless steel, bronze, and PVD satin gold or satin black.

formani.com



Hands on

The latest trends make the most of metal technologies and ergonomics.

BY SHEILA KIM



Graphite Nickel Finish

Though matte and satin black are still popular finishes, some manufacturers are exploring similar but warmer tones that recall antique metals. Among them, Baldwin Hardware's Graphite Nickel PVD finish is now an option for the brand's Estate Portfolio of front- and interior-door hardware and cabinetry knobs and pulls.

baldwinhardware.com



Rectangular Suite

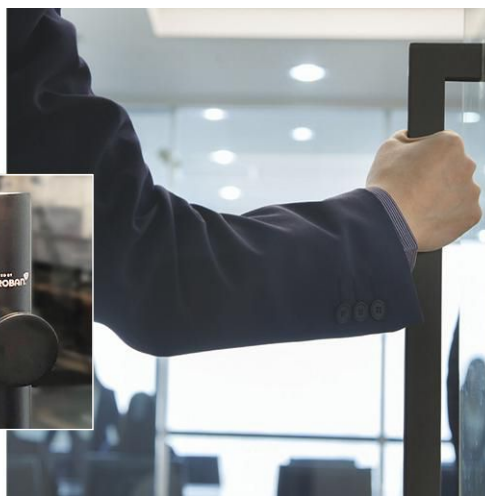
This Ashley Norton line of entry and interior hardware offers an array of rectangular escutcheons, levers, pulls, knobs, and window hardware that run the gamut in style from traditional to transitional and contemporary, to suit every taste. All components are handcrafted using art-grade bronze or solid brass in a wide range of finishes.

ashleynorton.com

CareSecure

Microban International and the new CareSecure division of commercial glass-door-hardware manufacturer T-Concepts Solutions have developed an antimicrobial coating to help reduce the spread of germs. The coating is said to be more effective than cleaning with disinfectants, because it continuously works for the lifetime of the handle's finish to inhibit the growth and reproduction of bacteria.

t-concepts.com



Stacking Up

The latest innovations prove to be more than just another brick in the wall.

BY SHEILA KIM



Tenley Brick

A long and lean brick veneer with subtle tonal transitions, Cultured Stone's Tenley is well suited for contemporary spaces. The 2¼" wide x 10½" long x ¾" thick brick is available in four colorways: Loftan (creamy white); Kullen (soft gray); Wildon (flint gray with brown undertones); and Nori (charcoal with hints of ash).

culturedstone.com



Utopian Series

Belden Brick Company applies its color-blending capabilities to coarse-grind extruded-clay pavers, resulting in one-of-a-kind, eye-catching, tactile bricks.

Available in three formats (4" x 2¼" x 8", 4" x 2¾" x 8", and 4" x 2¼" x 12"), the Utopian series is offered in three color families ranging from brick reds to gray tones.

beldenbrick.com

ALSB New Colors

Arriscraft has expanded its calcium-silicate Architectural Linear Series Brick (ALSB) with three new shades, among them Forged Steel (shown). ALSB units are 2¼" high x 3¾" deep, in random lengths of up to 23⅝".

arriscraft.com



CIRCLE Project

In February, CIRCLE Project—a group comprising scholars from six European institutions, including BUILDERS Ecole d'ingénieurs and the University of Central Lancashire—presented findings from research that explored the possibility of a seashell-based pavement as a greener alternative to permeable concrete. After running several pilot sites, the team concluded that shellfish waste can successfully be substituted for typical embedded aggregates, thereby replacing nonrenewable components with recycled material. While it's still too early to say where this new formulation will go, the feedback has been positive: representatives from the seaside town of Blackpool, England, have already expressed interest in implementing this experimental concrete in the Hawes Side area.

project-circle.eu

True Gray

Glen-Gery's True Gray Series, part of the company's Vogue Commercial Collection, comes in four tones with differing gray hues, from an ivory-esque Cool Gray to a dark Modern Gray (shown). Each extruded-face brick is 7⅝" long x 2¼" high x 3⅝" thick and offered in a smooth or coarse finish.

glengery.com





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The sketches of the winners and runners-up will be published in the November 2023 issue of *Architectural Record* and shown online in the ArchitecturalRecord.com Cocktail Napkin Sketch Gallery.

HOW TO ENTER:

- Sketches should be architecture-oriented and drawn specifically for this competition.
- Create a sketch on a 5-inch-by-5-inch white paper cocktail napkin. You may cut a larger napkin down to these dimensions.
- Use ink or ballpoint pen.
- Include the registration form below or from the website.
- You may submit up to 6 cocktail napkin sketches, but each one should be numbered on the back and include your name.
- All materials must be postmarked no later than September 11, 2023.

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Entry form the size of 5 x 5 cocktail napkin, for reference.

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Deborah Berke Partners Relaunches as TenBerke

*In mid-April, New York–based Deborah Berke Partners announced that it was becoming TenBerke and rearticulating the practice's ethics-based vision. Alongside partners Maitland Jones and Arthi Krishnamoorthy, Deborah Berke spoke with RECORD senior editor Leopoldo Villardi about the change, what it means for the 60-person firm, and her forthcoming book with Thomas de Monchaux, *Transform: Promising Places, Second Chances, and the Architecture of Transformational Change*.*

You've been practicing since 1982 and formed Deborah Berke Partners with Maitland Jones and Marc Leff in 2002. Just a few years ago, eight more designers, including Arthi, joined the partnership. Why the name change and what does it mean for your practice?

Arthi Krishnamoorthy: We've been thinking about it for some time—and it's nice to finally say it aloud to an audience that isn't just us. In a way, we are catching up to who we've been for a long time and finally using our firm name to better reflect that. Deborah doesn't draw a napkin sketch and then walk away. Design has always been a conversation, amongst ourselves and with the creatives we often work alongside.

Deborah Berke: The firm has morphed over many years. When I first got my license, I was practicing at my kitchen table. It was a tiny, tiny office. Almost all our work was either in Seaside, Florida, or low-budget projects in New York City for artists. By the



The staff of TenBerke gather for a portrait in Madison Square Park (above). Deborah Berke and Thomas de Monchaux's forthcoming book, *Transform* (below), will be published in June by Monacelli.

2000s, we were taking on larger-scale work. But since the very beginning, we've never had the—I'll call it "imperial" model. I am not an empress. I am never the only one talking. That's just not how we work. Nor is it how we present ourselves to the world or how we relate to our clients.

Maitland Jones: We want to be clear about who we are and what is best for us as a group, with an interest in inclusion, empowering young people, giving them a sense of their future, and ensuring our longevity as a firm.

There are more than 10 partners, so where does the "Ten" come from?

AK: For us, Ten signified multiples and multiplicity. There are also the powers of 10, which evoke the many scales where we work—zooming in on details but also zooming out and thinking about the broad responsibilities we have as architects. Details, in the end, affect people.

MJ: It has very positive allusions to both 1960s optimism and architectural pragmatism. Does it contain a little whimsy or optimism? Maybe. It's not too self-important, but it isn't unserious either. Sometimes we think

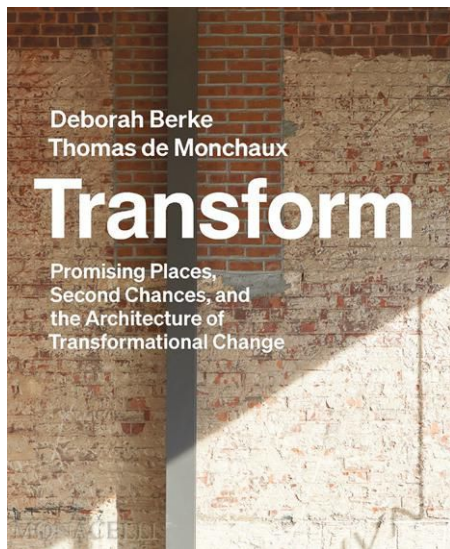
of ourselves as instruments of change. So there is something a little scientific about it, but also humanistic at the same time—10 fingers, 10 toes.

In recent years, principals have avoided using their own names, leading to some bizarre and forgettable firm names. Unlike Skidmore, Owings & Merrill's shift toward SOM, or Polshek Partnership's rebranding as Ennead, which removed its founder's name altogether, "Berke" is still very much a part of the new identity.

DB: I'm not going anywhere. [Laughs.]

MJ: We're moving toward a model of broad ownership, guided by narrow leadership. Clients come to us because they are undertaking projects that solve problems at a mission scale. They are not undertaking trivial things. This is the case with our new project at Princeton (page 74). These are the kinds of projects that are fun and exciting for us. We want to invoke all of this in our identity.

Many institutions have hired you for adaptive-reuse projects. Tell me a little bit about the thinking behind your forthcoming



book, *Transform*, which documents these interventions. Deborah, your essay in it, “Against Preservation and for Regenerative Reuse,” will raise eyebrows among some.

DB: That’s good. I have always been suspicious of the “save it as though it were in amber” approach, because life isn’t like that. Our bodies age. Our experiences change. Cities themselves are organic things that evolve over time. Why would you freeze a building in time? I can understand why someone would want to preserve a room where, say, George Washington slept. But beyond that, what we ought to speak to is that human experience changes, varies, and gets richer by the visibility of time—not of aging—but of time; of how we change uses and do things differently.

AK: In terms of climate change, we’re almost at a point of no return, too, and there is so much embodied energy in existing buildings. We risk losing our sense of optimism if we don’t do anything. There are many reasons to save what already exists.

MJ: Not least of which is to live in and

In 2017, TenBerke transformed the H. H. Richardson–designed Buffalo State Asylum for the Insane into a hotel and conference center (*Record*, September 2017).

acknowledge one’s time. Consider the Richardson Olmsted Campus in Buffalo. By adapting it and clearly adding to it, we leave no uncertainty about what the real deal is. If our additions had been Richardsonian Romanesque, I think everyone would’ve lost something.

DB: The space—and time—between old and new is where we live our lives. We are not of the tear-it-down-and-start-with-a-blank-slate school, but “fakery” is antithetical to our



design approach. Dyed-in-the-wool preservationists need to be more open to discussions with architects about the key characteristics of a building that allow it to tell a story, and what the pieces are that otherwise *can* and *need* to change. ■

PHOTOGRAPHY: © CHRISTOPHER PAYNE/ESTO

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Photo: alanblakely.com

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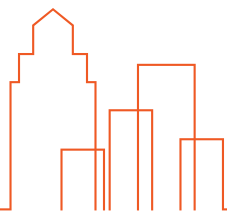


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The casa de vidro (“glass house”) was designed by **Lina Bo Bardi** for herself and her husband, the writer and curator Pietro Maria Bardi. After moving from Italy to Brazil, where the two both became naturalized citizens, Bo Bardi and her husband acquired land in the São Paulo neighborhood of Morumbi, and Bo Bardi began work on the house in 1949. Its structure was designed by the noted architect-engineer Pier Luigi Nervi.

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Blueprint for Collaboration will take place at one of San Francisco's most historic glass venues and home of AIA San Francisco - the Hallidie Building. The evening will feature a panel presentation of glazing and design industry representatives discussing the future of glass in design with respect to energy performance and sustainability.

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One House Per Day, by Andrew Bruno. ORO Editions, 392 pages, \$40.

REVIEWED BY LEOPOLDO VILLARDI

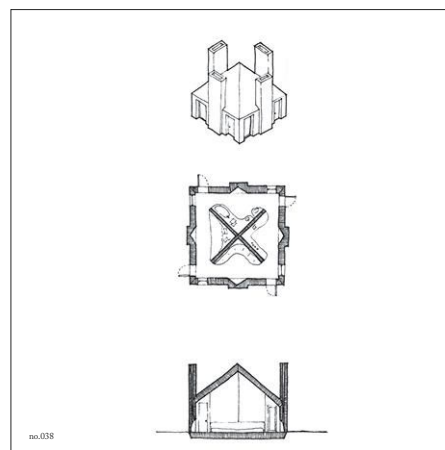
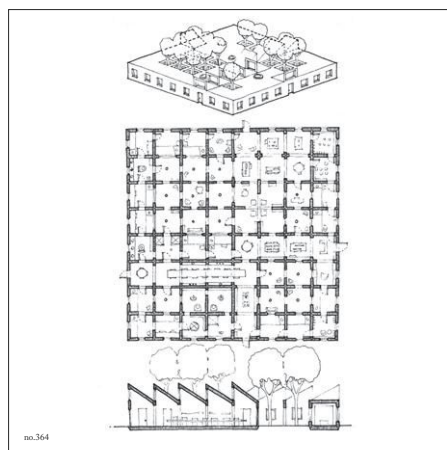
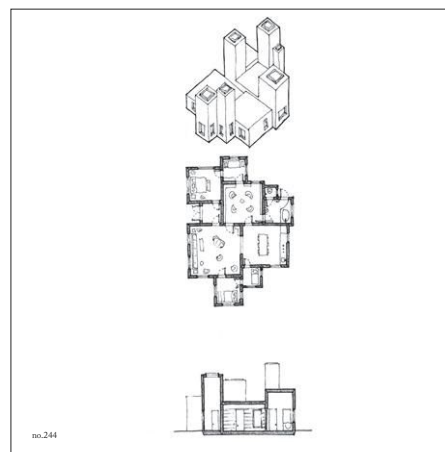
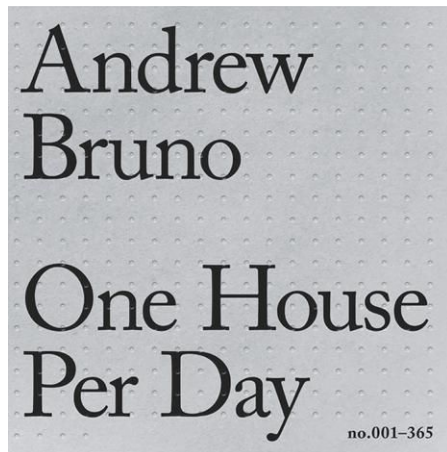
"I HAD BEEN trying to get into the habit of drawing daily on a number of occasions," architect Andrew Bruno explains. "But I'm not someone who has a lot of discipline. Posting on Instagram to a public audience was a way to keep me accountable." Bruno's new book, *One House Per Day*, collects the first 365 drawings from his self-initiated social media experiment to design, sketch, and share a single dwelling every day. Since his first post in January 2020, Bruno's account (@one_house_per_day) has amassed a following of over 47,000—and the drawings keep coming.

Given the project's original medium, the book fittingly takes the shape of a 7½-by-7½-inch square. Opening with a foreword by Keith Krumwiede and two thoughtful written contributions by Malcolm Rio and the duo Alessandro Orsini and Nick Roseboro, *One House Per Day* then launches into a steady stream of drawings—each page represents

one post, composed of an axonometric, plan, and section of a single domestic design—before closing with reflections by Clark Thenhaus and the author.

The collection of illustrations, supplemented by an index of succinct descriptions, reads like a diary of Bruno's daily musings. *House no. 150* was inspired by Reyner Banham's 1965 essay "A Home is not a House," which the author happened to be reading. About a month later, when Bruno first learned of Anni Albers's work with textiles, he set himself the task of scrawling a house that used fabric extensively (*House no. 185*). Reinventions of well-known house types—the courtyard, the saltbox, and the A-frame—pop up, and, as readers leaf through the pages, they might even see entire genealogies begin to unfold.

Some of the houses, like those of endlessly matrixed rooms, seem terrifying to inhabit. Others are quirky and imaginative. A few, simply put, would not work well as abodes. Or would they? This unpretentious compendium is a welcome reminder that novel ideas, and the occasional solutions left in their wake, start with the stroke of a pencil. ■



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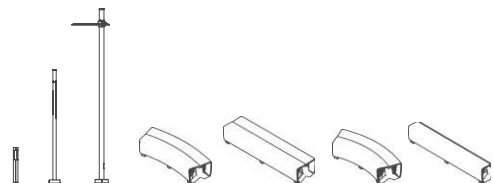
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LANDSCAPE

A SUBAQUATIC BIKE GARAGE IN AMSTERDAM CREATES SPACE FOR LIFE TO FLOURISH ABOVE AND BELOW THE SURFACE. **BY WILL JENNINGS**

THOSE WHO ALIGHT from trains at Amsterdam Central Station are flung into an urban maelstrom. With 200,000 daily riders, the station is a critical hub for trains, but also for trams, ferries across the IJ River, and bicycles, with a key east-west cycling path running parallel to the vast building.

Bicycles, which account for over 60 percent of all city-center trips and half of all daily commutes into the city, are everywhere in Amsterdam. They fill the streets, packed into unsightly metal-framed multistory bike parks and also locked to bridges, railings, and lamp-posts as a form of urban decoration. In the Netherlands, a country of 17 million people and 23 million bicycles, these vehicles are a key consideration in all urban-design projects, not only in movement, but also in storage.

Amsterdam's packed center has little space. There is, however, plenty of water, with much of the city built upon wooden piles. Central Station is constructed this way, standing on nearly 9,000 piles, but a new extension goes one step further, building beneath the IJ as well as on the river.

IJboulevard, by VenhoevenCSarchitecture +urbanism, is a key component of a decade-long Central Station strategy to improve capacity and access. From the outside, it might not seem like much to look at architecturally: a nearly 65,000-square-foot public plaza to the north of the station that offers a moment of calm, with views toward the emerging towers on the facing bank of the IJ. Under the surface, however, lies a far more complex feat of engineering ingenuity.

Tucked below the new riverside terrace is a state-of-the-art bicycle storage facility. Four penetrations into the otherwise open paving offer access: two central staircases and, at each end, shallower stairs with ramps for bicycles to be wheeled on. Inside, the neatly detailed and generously open space is a long corridor of continuous double-height bike racks, its gentle curve reflecting the bend of the river, adding to the drama of unexpected scale.

Users enter the facility with a simple swipe of a credit or city-transportation card—storage is free for 24 hours, then roughly \$1.50 a day thereafter—and guide bikes to a spot. Cameras and sensors monitor capacity, feeding clear signage and ceiling lights to indicate where users can find empty spaces. The cameras also note bikes that have not been moved after several weeks, alerting staff to remove any that may have been abandoned.

Although a space with an immediate and understandable ease of use, IJboulevard bike



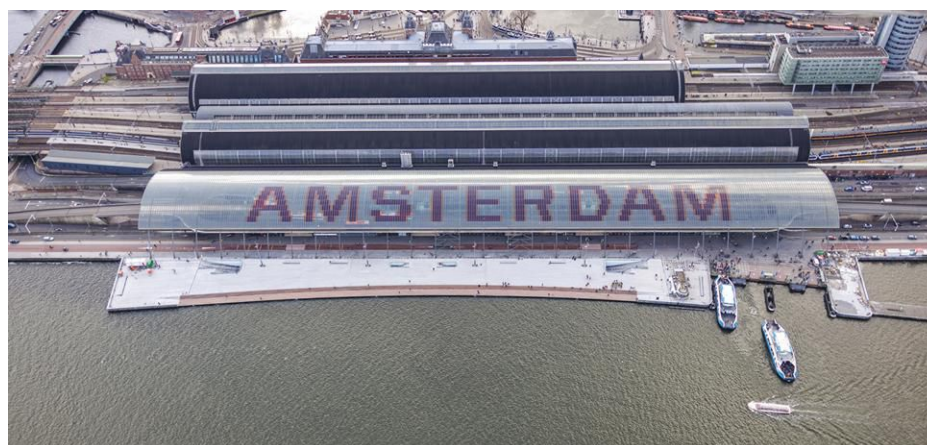
A ramp leads down to the bike-storage area from the new riverside plaza at Amsterdam Central Station (top). The underwater facility can accommodate 4,000 bicycles (above).



The column-free design maximizes available storage space (above); aerial view of Amsterdam Central Station and IJboulevard (right); the riverfront promenade (opposite).

garage is the result of an elaborate construction process. The tunnel was formed from three concrete tubes, built eight miles away in a shipyard before being floated to the site on a pontoon. With the ends of each tube closed off by steel sheets, the three components were sunk into the water before being maneuvered into place, carefully avoiding existing perpendicular Amsterdam Metro lines beneath. Then they were joined together, the temporary steel ends of each section cut through to create a single hollow form with room for 4,000 bicycles. VenhoevenCS partner Danny Esselman calls it a “semi-floating situation”—the structure is supported on underwater columns, but the columns require less engineering than if above ground, due to the innate buoyancy.

A timber promenade at the water’s edge, reached by steps down from the plaza, disguises a solid concrete slab that protects both the bike park and train station in the event of a ship’s veering off course. Underneath both elements, and among the supporting piles, a new aquatic habitat has been created. Formed of wood, coconut mats, porous concrete, and artificial fish nurseries known as bio-huts, the project’s marine landscape was designed in



MARINE ECOLOGY CROSS SECTION

IMAGE: COURTESY VENHOEVENCS

collaboration with DS Landschaftsarchitekten to provide surfaces and shelter for aquatic flora and fauna to flourish.

Esselmen explains that the northern edge of Central Station had historically been its “backside”—a forgotten space once rife with crime and prostitution. VenhoevenCS now proudly refers to the reimagined area as the “city’s balcony.” In the process of creating concealed parking for thousands of bikes, the scheme also enables removal of unattractive bike-storage units at the front of the station, returning 18,000 square feet of outdoor space for pedestrian use.

From its opening in late February, IJboulevard looked as if it had always been a part of the urban landscape surrounding Central Station. Commuters immediately flooded in and out with bikes, tourists flowed from the station to the new riverfront boardwalk to admire city views, and, hidden beneath the water, aquatic life began to build a new home. ■

Will Jennings is a London-based writer, artist, educator, and curator.



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Hammer Time!

A transformation two decades in the making, Los Angeles' Hammer Museum is ready for its close-up.

The museum-going experience at the Hammer is a truly singular one. Entering from multiple locations, visitors, once inside, weave in and out of the museum's central courtyard as they make their way through the galleries, some designed as such, others recently converted from office floors in the adjacent tower, another a former retail-bank space on the ground floor. Originally opened in 1990 as the Armand Hammer Museum of Art and Cultural Center, the building, designed by Edward Larrabee Barnes, has been undergoing a series of interventions—outlined in the diagrams on the following pages—by Michael Maltzan Architecture (MMA) beginning in 2000. In March, the museum, which has free admission to all and is part of the School of the Arts and Architecture at UCLA, celebrated the culmination of that transformation, whose final phase included a redesigned Wilshire Boulevard entrance, an outdoor sculpture terrace, and a spacious new art-filled lobby. Michael Maltzan and Hammer director Ann Philbin talked with RECORD editor in chief Josephine Minutillo about their decades-long collaboration and the evolution, during that time, not just of their building, but the city of Los Angeles as well.

There are classical museum buildings, house museums, museums in former industrial spaces—but the Hammer is an unusual amalgam of spaces. What were the challenges and opportunities of working within this existing structure?

Michael Maltzan: From the beginning, the mission was to create a place that had its own unique identity, its own energy. The multiple entries, for instance, which could be seen as a challenge, were actually a huge advantage. It says something about an institution when you can come from almost any direction in the city and enter the museum—it's so different from, say, the Met in New York, where you are confronted by that huge set of stairs, which tends to create a physical and psychological impediment for many people.

Pragmatically, the fact that Barnes's museum had its lobby in the base of the Occidental tower, which was Armand Hammer's company, and was connected to it, created very difficult complexities. The building types are different, there were different floor-to-ceiling heights, the parking garages were linked but in a circuitous way. And

because it was connected to a high-rise, the museum was technically a high-rise as well. From a code standpoint, it made the museum project difficult for Barnes, and in some cases difficult for us.

His building was completed in 1990—right at the moment when the role of museums and culture was changing significantly, to become much more accessible, much more engaging. The Hammer was one of the last of that old idea of a museum.

I did get to meet Ed Barnes at the start of this project, and we went over the changes that we were proposing. He was OK with them. I thought that was an unbelievably remarkable thing, where architecture, in that case, was bigger than the architect, in his mind.

Ann Philbin: Barnes's building did have a great asset. The courtyard is a hugely important element of this structure. In fact, it's the first thing that attracted me to this place. When I walked into this building, it was a bleak-looking place, but I saw the giant courtyard and I realized that, in a city like this that has very few parks and gathering spaces, this is an ideal structure. That's why we started on the theater first. This is a place not just for exhibitions but for public programs and people coming together. We have 300 events in that theater every year—but it was literally a hole in the ground at the opening, because they wanted to finish the original museum so Armand Hammer could see it before he died, and the theater space never got fully built out. The gathering part of this place is absolutely one of the most important things about it.

MM: It was really about jump-starting a new form of civic and urban life in this city. That's what's been extraordinary to see over the years.

AP: But this is also a space for artists. I wanted to make a place that artists wanted to come to, a place with exhibitions that artists wanted to see.

Currently in Los Angeles the Lucas Museum and LACMA are under construction, among others. Where does the Hammer fit in this changing cultural landscape?



PHOTOGRAPHY: © IWAN BAAH



AP: We have become a leading institution in this city for contemporary art. There's enormous friendliness and collegiality among the museum directors, and we're all excited about all the projects happening—and there are a lot of them. All boats rise here.

Ann, what made you take a chance on an architect who at the time had only been in practice on his own for a few years?

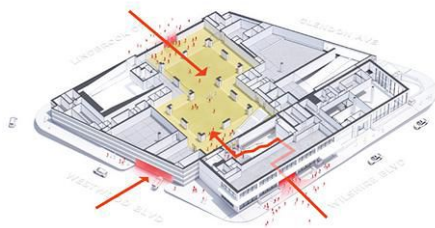
AP: I had only seen residential projects

that he had done, but the buildings were for people I really trusted and who were friends of mine. And they were champions of Michael's. When I met him, and he delivered a proposal, I just knew.

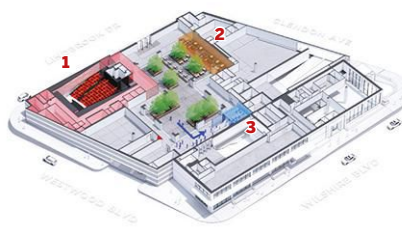
Michael, how does it feel to be the architect of a project where many of the architectural moves go unnoticed by most?

MM: I knew from the beginning that much of what was going to happen architect-

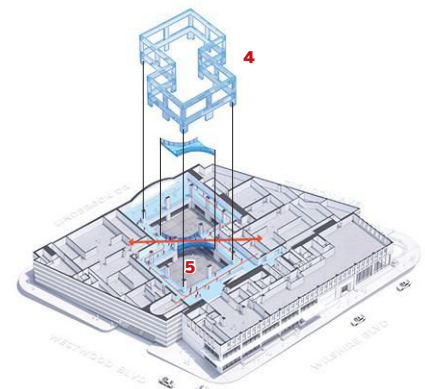
The Hammer Museum now has a stronger street presence, with a prominent new entrance on Wilshire Boulevard (opposite). Its courtyard remains a space for gathering (above).



2000
MMA DESIGNS MASTER PLAN



2006
1 BILLY WILDER THEATER
2 COURTYARD CAFÉ
2011
3 THE LAB



2011
4 COURTYARD SHELL
2015
5 JOHN V. TUNNEY BRIDGE



Chiharu Shiota's site-specific installation blankets the walls and ceilings of the redesigned lobby with her signature red wool fibers (left). Upper-level galleries (opposite) open onto terraces that overlook the courtyard (below, left).

turally, in order to choreograph movement and program, was going to be more surgical, more strategic, and I became completely fascinated by that.

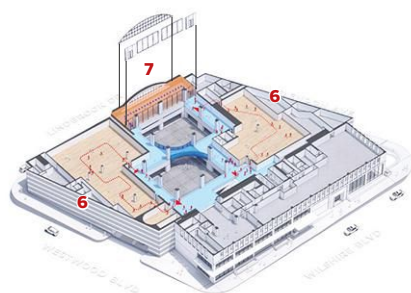
How has attendance grown as more aspects of the project were realized?

AP: When I got here [in 1999], attendance hovered around 35,000 a year, and it's since gotten to over a quarter of a million. The museum was hidden in this office tower. When people realize that it's here and that it's free, we're going to see an even bigger increase.

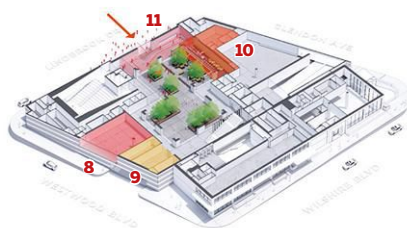
Because the interventions have happened gradually in an existing building, has that taken away from the “big splash” so typical of many museum openings?

MM: I think you often see that “big splash” happening instantaneously, and then it's done—it's a kind of anticlimactic moment. Here, what's interesting is that the understanding of the Hammer as an institution, the excitement about it, has also built up over 20 years in the same way that the institution has continued to grow and evolve.

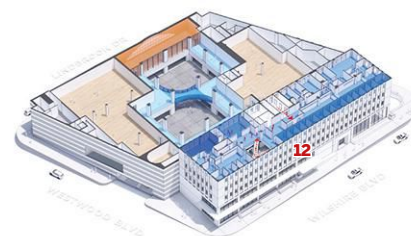
AP: We would have made a lot of mistakes if we had followed our first master plan to the letter. Because the process was incremental, we had the opportunity to change and tweak and alter things as we observed how visitors behaved and how we used the space. I feel so lucky now, but if someone had told me when we started that it was going to take over 20 years I would have said “Forget it!”



2016
6 MAIN EAST AND WEST GALLERIES
2018
7 ANNENBERG FAMILY TERRACE



2018
8 BAY-NIMOY STUDIO
9 CHARA SCHREYER GALLERY
2019
10 RESTAURANT
11 LINDBROOK ENTRANCE



2020
12 OFFICES



Is there an example of something that changed from the master plan?

AP: The renovation of the galleries was going to be much later in the process, but then we wanted to take an exhibition of AI Ruppersberg's work from the Walker Art Center. Word got back to me that he didn't like the galleries. And he was right, we had galleries that were not very modern or attractive—they had molding and yellowed wood floors. We

hadn't prioritized that, because at least they existed, but in that minute, we decided, "Next phase is now the galleries!" And we renovated the galleries and presented AI's retrospective.

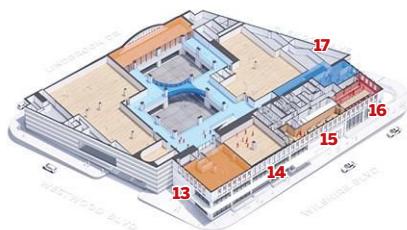
Well, now you have Rita McBride, who loves the "corporate ruin" of the old bank at the Hammer for her current exhibition. Would you consider leaving it like that, or will there be another phase to this "com-

pleted" project to renovate that space?

AP: We don't have the money to do that right now, because we took that money to save our staff during Covid. But it will eventually be done. And we will make that space continuous with the rest of the museum.

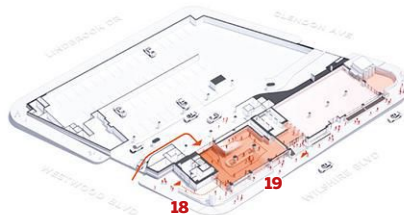
So, when you say this is the culmination of 23 years of collaboration, it's really not true?

AP: Not completely . . . ■



2022

- 13** HAMMER STORE
- 14** WORKS ON PAPER GALLERY
- 15** WORKS ON PAPER STUDY CENTER
- 16** BOARD ROOM
- 17** BACK OF HOUSE



2023

- 18** CORNER ENTRY
- 19** YOUNES & S. NAZARIAN LOBBY



2023

- 20** NEW GALLERY
- 21** SCULPTURE TERRACE

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Industrial Chic

Lina Ghotmeh designs an upscale manufacturing facility for Hermès, in Normandy.

BY ANDREW AYERS



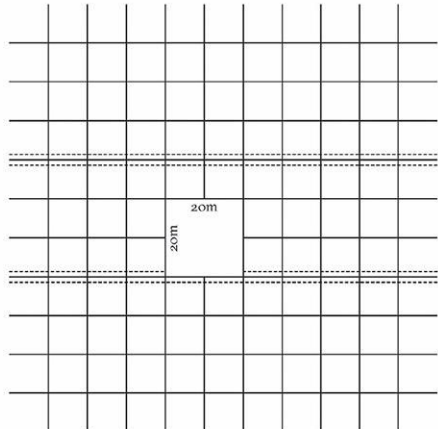
THOUGH PERHAPS best known today for its ladies' silk scarves, French luxury brand Hermès started out as a saddlemaker and still produces numerous leather goods, among them the famous Kelly purse, launched in the 1930s and given its current name after Princess Grace of Monaco was spotted hiding her pregnancy behind one in the late 1950s. With a 2022 turnover of \$12 billion and net profits of \$3.7 billion—a 38 percent increase over 2021—the non-public company, owned and run by descendants of the founders, is in full expansion, opening new sites of manufacture and scouring France for a labor force skilled enough to work to its extremely exacting standards (there's currently a six-to-seven-year waiting list for a Kelly, which retails at around \$7,500). Hermès's nine French production hubs are scattered around the country. In Normandy, the firm operates facilities near Louviers, 60 miles northwest of Paris. This January, Hermès's Norman production capacity was greatly increased by the opening of a brand-





AXONOMETRIC

The new leather-goods workshop will employ up to 260 craftspeople (above and opposite) in a square building (left) that recalls the shape of the company's famous scarves, divided into 10-meter-bay modules (below).



new leather-goods workshop, a 66,700-square-foot building that, once running at full steam, will employ 260 craftspeople. Designed by Paris-based Lebanese architect Lina Ghotmeh, who won the 2019 design competition, it is intended as a paragon of sustainable development.

“Hermès runs a policy of responsible, structured growth,” says François-Pierre de Feydeau, head of Hermès’s Norman hub. “Among other commitments, the family has decided that new facilities should only be built on brownfield sites.” So it is that the leather workshops find themselves in an area of housing and light industry that developed over the course of the 20th century to the north of Louviers, with forested hills to the west and rolling fields to the east. “There’s beautiful nature nearby, but a lot of the industrial buildings show little care in their design,” says Ghotmeh. “The challenge was to create a place you don’t identify as industrial, to go beyond the stigmas of what a place for making can be—to render it timeless in a certain way, and in resonance with the wider natural landscape.”

Located at the northern end of its generous rectangular site, which is bounded to the south by the inevitable parking lot, the single-story building is a giant square in plan, 90 by 90 meters (295-foot square). “As well as recalling the shape of Hermès’s famous scarves, the square plan is compact, which not only helps lower energy consumption but reduces distances within the workshops,” says Ghotmeh. “We have high output targets,” adds Feydeau, “meaning each piece has to be made within a certain amount of time. Workers’ movement around the shop floor must therefore be minimized.” All the workshops, with the exception of the saddle-making studio, are lined up along the northern facade (Kelly purses are made there), where they receive cool, even light, while batteries of north-facing sawtooth roofs bring in yet more daylight, their unglazed south-facing slopes carrying solar panels that, along with geothermal heating and cooling, are intended to allow the building to produce more energy than it consumes. Organized like a Roman town with its *decumanus maximus* (main east-west thoroughfare) and its forum—in Hermès-speak, the “village square,” a central unprogrammed space where staff can meet informally—the complex was planned on a 10-meter-wide bay module, the perfect width, Ghotmeh explains, for an atelier with two rows of tables. In keeping with Hermès’s time-motion traditions, the ateliers are



FIRST LOOK



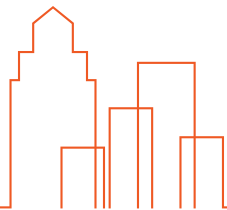
Brick arches are used throughout parts of the exterior (left) and interior (bottom).

grouped into threes—a cutting shop, flanked on either side by manufacturing studios.

In this part of Normandy, the traditional construction material is brick, which Ghotmeh has used for the building's external envelope. "Not only is brick a local material, it's made by hand and is dimensioned for manual use, so its presence in the architecture reflects the trace of the hand in Hermès's craft manufacture," she explains. Produced with traditional methods at a brickyard some 40 miles away, the 500,000 bricks were "fired for longer at a high temperature to achieve deep red and violet hues." Elongated brick arches express the 10-meter-bay modules, while the walls above them rise high enough to hide all the HVAC machinery on the roof. Beautifully laid in Flemish bond using mortar colored with brick dust, the self-supporting envelope (reinforced here and there with concrete to preserve the purity of the design) encloses a timber-framed building (a mix of glulam and solid wood) whose interiors are divided with timber partitions in a drive for economy and embodied-carbon reduction. It is the first manufacturing facility to achieve France's E4C2 environmental rating, a certification level that requires net zero energy and entails adherence to carbon limits, including those relating to construction materials. The building uses bioclimatic principles—northern orientation, tree shading, natural ventilation, rainwater reuse—to help achieve its targets.

Though Hermès has not divulged construction cost, this, Ghotmeh says, is a frugal building that "tries to bring beauty to a context where nobody has bothered to care about beauty." What she is referring to here is the southern, pedestrian entrance sequence—lateral facades are almost entirely blind, the eastern one fronted with asphalt for truck access—which is indeed beautifully handled. After leaving the car park, staff pass through an undulating naturalistic garden, landscaped by Erik Dhont using the soil excavated for construction, before arriving in a lovely series of outdoor brick-arched "rooms" (that could be enclosed later if operations grow) leading directly to the "village square," from which the complex is entered. The building's external materiality is certainly very poetic, a luxury touch that contributes both to Hermès's brand image and to raising this industrial facility several cuts above the standard tin shed. ■

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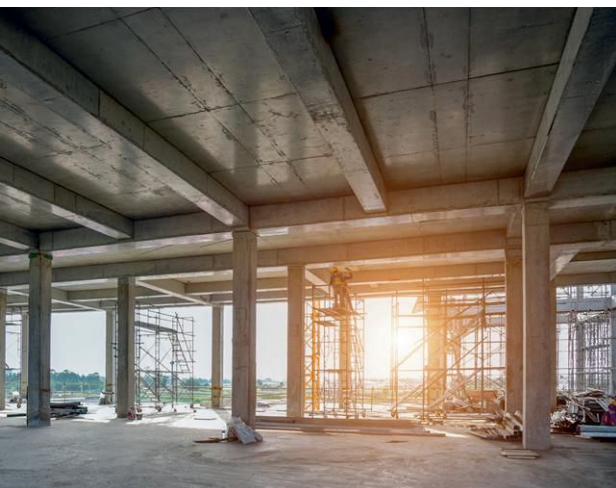


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Across the world, concrete is one of the most popular building materials due to its affordability, versatility, and durability. In addition, concrete is often used because of its thermal mass, or ability to store heat, which can reduce energy use in buildings. Today, the concept of Net Zero buildings, which aims to improve the negative environmental impact of the built environment, is a key component of the discussion on concrete sustainability. Increasingly, concrete manufacturers are looking at sustainability issues associated with concrete production, specifically around the reduction of a building's carbon footprint.

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BOKŠTO 6 | VILNIUS, LITHUANIA | STUDIO SEILERN ARCHITECTS, WITH ARCHINOVA

Reflecting History

In Lithuania's capital, Studio Seilern transforms an 18th-century hospital into a lively mixed-use complex.

BY CHRIS FOGES

PHOTOGRAPHY BY ROLAND HALBE





“WORK ON historic buildings is much more difficult than designing new ones,” says Christina Seilern, founder of London-based Studio Seilern Architects. “Everything you do is scrutinized in minute detail, and there’s always the fear of getting it wrong.” As she recounts the 13-year project to create 143,000 square feet of apartments, offices, and leisure facilities from an 18th-century hospital in Vilnius, the capital of Lithuania, one can see what she means. The architects’ bold approach to a sensitive setting required confidence and strong powers of persuasion, but the harmonious accord between restored structures and imaginative additions should put any doubts to bed.

Located on Bokšto Street in the heart of the Old Town, a UNESCO World Heritage Site, the walled compound that Seilern first encountered comprised three large buildings in two U-shaped arrangements that define a spacious courtyard, with a smaller L-shaped structure on a lower terrace to the east. They had once been beautiful, with baroque architecture of the simplest, most austere kind, but were in terrible shape. Clumsy extensions were added in the 19th century, and the 20th century saw the roofs replaced with metal sheeting that eventually rusted, and most original features ripped out.

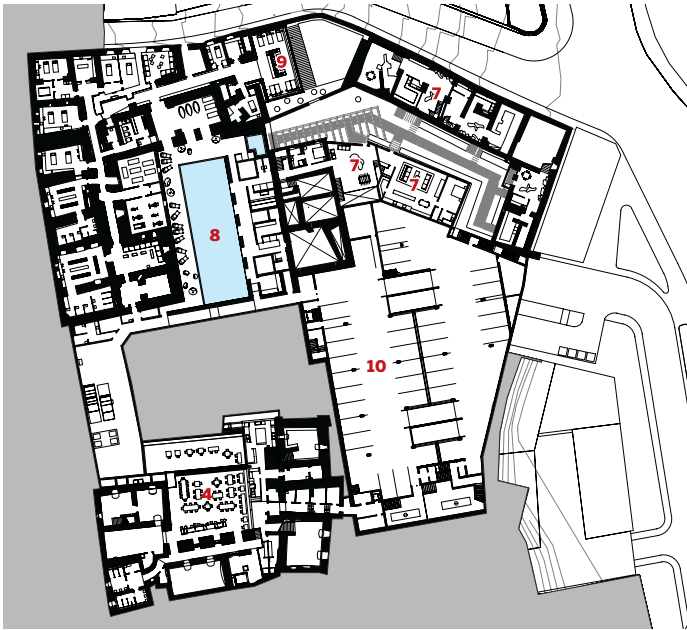
The rotting complex had been entirely abandoned some years before it was acquired by Seilern’s client, who had moved from Switzerland to Lithuania soon after it gained independence from the Soviet Union in 1991. “He’s been very successful in business and wanted to give something back to the city,” says Seilern. “It’s a commercial development, but he saw it as a cultural project too.”

The architects began with forensic investigation of the derelict buildings, which sit over vaulted brick basements dating back to the 15th century. The process of discovery shaped ambitions for the project. Initial plans for a hotel were deemed too destructive; they gave way to a mix of uses suggested by the eccentric spaces.

The basement of the northern range would accommodate a spa, with an adjoining swimming pool below the courtyard. An elevator and stair tower serving both the spa and offices above would be installed outside

POLISHED STEEL on a stair tower (top, right) and the restaurant’s roof (bottom, right) identify these elements as insertions in the complex’s 18th-century fabric (opposite).





BASEMENT-FLOOR PLAN



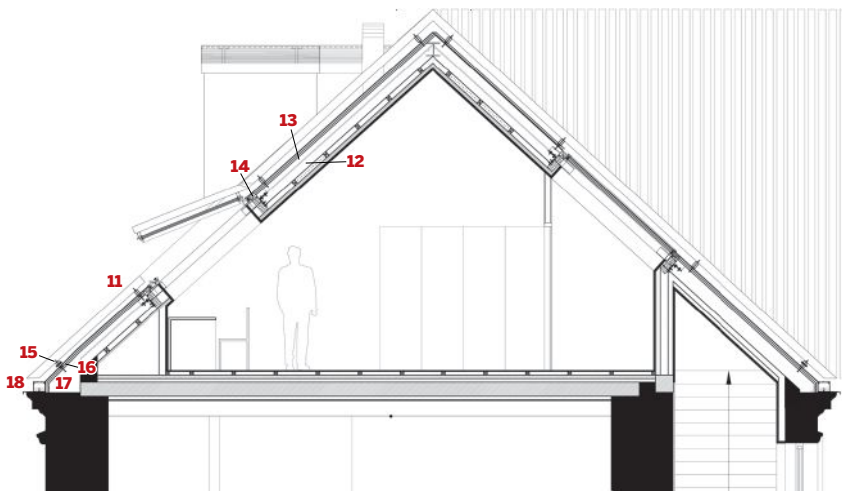
GROUND-FLOOR PLAN

0 30 FT.
10 M.



SECTION A - A

0 15 FT.
5 M.



ROOF-SECTION DETAIL

- | | |
|------------------------|------------------------|
| 1 PUBLIC COURTYARD | 11 ALUMINUM LAMELLA |
| 2 STAIR/ELEVATOR TOWER | 12 STEEL BEAM |
| 3 OFFICES | 13 ALUMINUM FIN |
| 4 RESTAURANT | 14 CURTAIN WALL DETAIL |
| 5 EVENT SPACE | 15 PVC MEMBRANE |
| 6 SPA ENTRANCE | 16 PLYWOOD |
| 7 RESIDENTIAL UNIT | 17 INSULATION |
| 8 POOL AND SPA | 18 GUTTER |
| 9 SPA LOUNGE | |
| 10 PARKING | |

A FORMER CHAPEL is now an event space (right). The restaurant (below, right) looks out onto a terrace and the courtyard beyond.

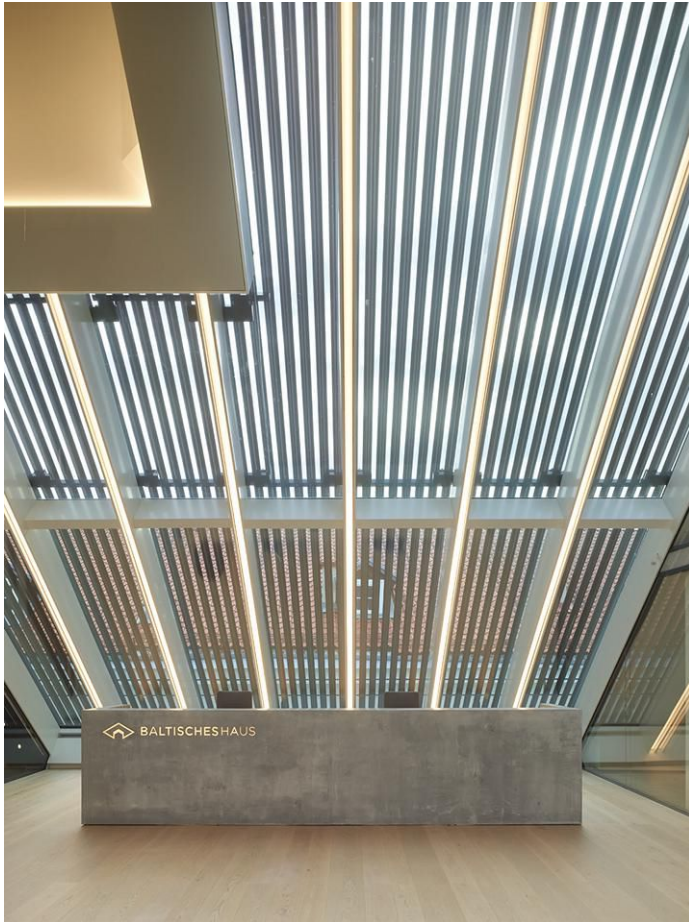
the building, preserving the integrity of the original structure. Between the wings of the southern building, a new basement would be dug to make a restaurant, with a roof rising to about chest-height in the courtyard above to let daylight in. Parking sits beneath the lower terrace, filling a void left by extensive archaeological investigations.

In parallel to this activity, the architects conceived a rationale for the design work: demolish where necessary to restore the clarity of the original composition, reveal the original fabric where possible, and give a clearly contemporary character to all additions. It's an approach well founded in theories of architectural conservation, but one that conflicted with strict rules on development in the Old Town that reflect resentment at the neglect of Lithuanian heritage during the Soviet occupation. "They were very prescriptive, and encouraged historical pastiche," says Seilern. "Crucially, though, the city representatives had strong academic backgrounds and would listen to arguments. It was a real battle, but we won more than we lost."

Most controversial was Seilern's proposal for new roofs. Rules insisted on clay tiles, but allowed skylights so that attic stories could be used. The architects argued that the essential character of the original buildings stemmed from the tension between the pale stucco facades and large, plain roofs, eventually winning an agreement for an ingenious alternative: setting windows behind close-spaced slats of bronze-anodized aluminum. While glass can be dimly discerned behind the dark metal veil, from a distance the expansive surfaces appear solid, and lend a sense of order and calm to the whole ensemble.

An equally creative approach was taken to the new structures in the courtyard, whose location was carefully justified by archival research showing where long-demolished buildings had once stood. Dressed in polished stainless steel, they are a mirror to their surroundings. Pin-sharp images of the baroque facades and dense planting in the courtyard gardens are reflected in the cladding of the elevator tower, so that the structure itself seems almost to disappear. Images of rooftops, scudding clouds, and the swaying canopy of an ancient linden tree animate the roof of the restaurant like the surface of a pond.





WITHIN the attic space, skylights sit behind aluminum slats (above, left) and a meeting room is enclosed in glass and steel (above).

“We wanted to avoid either mimicking the existing architecture or the overt contrast often seen in additions to historic environments,” says Seilern. “Reflection is a form of homage to the buildings and captures the landscape too, emphasizing the importance of the courtyard in the original composition.”

An enjoyable play between the original architecture and new insertions continues throughout the interiors, but the distinction always remains clear. For new windows Seilern argued against the wood preferred by preservation authorities. “With triple-glazing, wood frames are too thick to be correct,” she says. “It’s like Botox: you can always tell.” Instead, a slender steel profile influenced by baroque details was developed with Vilnius-based Archinova, which acted as both heritage consultant and executive architect.

Within the largest building, a former chapel is now a voluminous space for events and exhibitions. Any original decoration is

IN THE spa (opposite, bottom), a hallway zigzags through 15th-century vaults (right).

long gone, but the vaulted form has been rediscovered and the curves echoed in the frameless glass balustrade of a reinstated choir loft.

Where evocative traces of historic fabric do survive—from gnarled beams to time-worn frescoes—they have been revealed, and the scarred surfaces contrasted with crisply detailed linings of warm oak, gray terrazzo, and monochrome steel. There's a lovely moment where the exposed brick vault of the chapel pops up in a light-filled, double-height attic story, capped by a minimalist meeting room in glass and steel, and another in the spa where oak wainscoting zigzags through a succession of crazily distorted brick chambers.

Seilern was tempted to leave that brickwork encrusted in ancient dirt—an idea quickly vetoed by the client. That's understandable, but a pity. The patina of age is one thing the restored buildings lack. There were other compromises too, including the recreation of a long-lost clocktower and pedimented gateway. But for Seilern, the lengthy, complex project has come to a very happy conclusion. "I'm proud of the clarity that has been restored to the whole composition," she says, "and in a fresh and contemporary manner. I still can't believe we did it." ■

Credits

ARCHITECT: Studio Seilern Architects — Christina Seilern, founder

HERITAGE AND EXECUTIVE ARCHITECT: Archinova

INTERIOR DESIGNER: Boksto SPA, ArchDesign

GENERAL CONTRACTOR: PST

CONSULTANTS: Elvora LT (structural); NIT Projektai (building services); Contestus (project management); Studio IBU (lighting)

CLIENT: Oliver Ortiz, Ogvy

SIZE: 143,000 square feet

COST: withheld

COMPLETION DATE: September 2022

Sources

POLISHED-STEEL CLADDING: KIKUKAWA

CURTAIN WALL: KGC Constructions

WINDOWS: GAMALANGAI, Jansen, SKYFRAME, Glass Engineering

SKYLIGHTS: Aliuminio Konstrukcijos

HARDWARE: Dremmler, Siedle

CUSTOM WOODWORK: Joras

FLOOR AND WALL TILE: Vileka, Ogrinda

LIGHTING: Sviesos Technologijos, ProLED, Topmet, Deltalight, Viabizzuno, Ares



Packed House

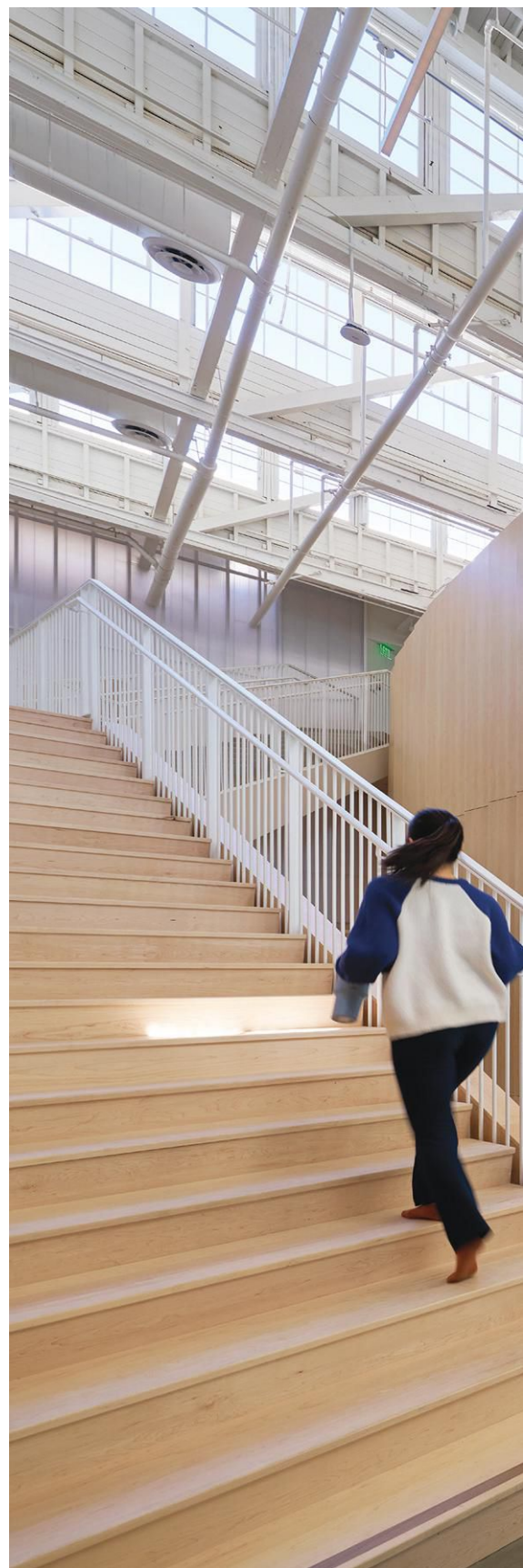
A historic citrus-processing facility is converted into a light-filled dance rehearsal and performance space at Chapman University.

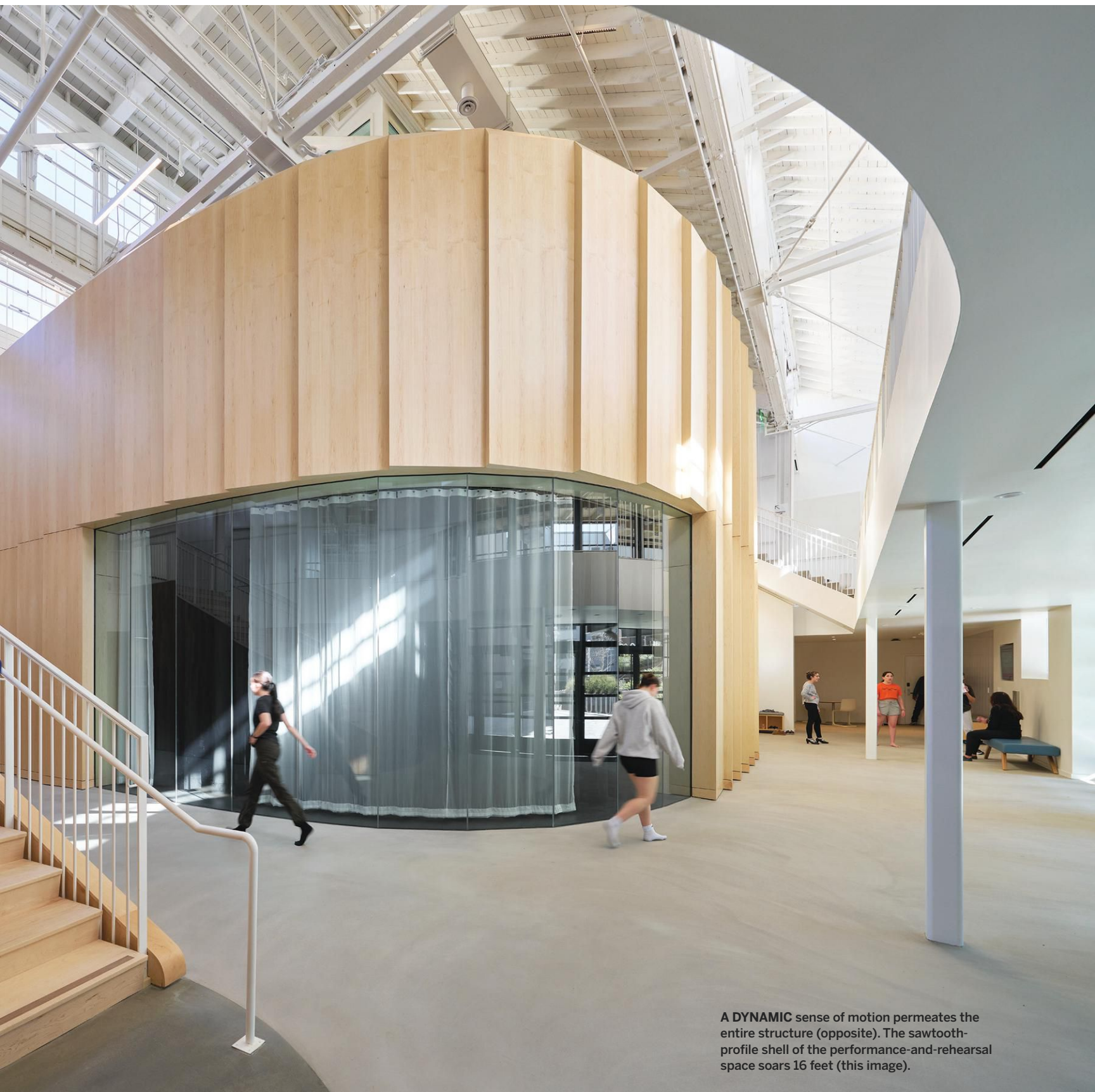
BY SARAH AMELAR

PHOTOGRAPHY BY ERIC STAUDENMAIER

INAPTLY named Orange County, California, the citrus industry boomed between the 1880s and late 1940s. Groves of Valencia oranges, the predominant variety, eventually covered more than 67,000 acres, and, at the peak of this “gold rush,” at least 60 major packing houses crated and shipped produce for local growers. Among them, the Santiago Orange Growers Association in the town of Orange—a 1918 facility, strategically sited by citrus magnate C.C. Chapman along the railroad tracks—became one of the highest-volume fruit packers in the nation, handling as much as 60 million pounds of oranges in a single year. But the industry shifted after World War II, as migration to Southern California spurred rising real-estate values in

Orange County, where housing tracts gradually supplanted groves, prompting some growers and packers to relocate to other counties. By 2004, when Chapman University purchased the former Santiago plant from its second owner, it was Orange County’s sole surviving citrus-packing plant. The historic warehouse did, however, gain state and national landmark designations, and Chapman University—renamed in 1934 for its lead benefactor, C.C. Chapman, the “California Orange King”—was committed to celebrating that legacy. But several years would pass before the university, focused on other expansion projects, would implement an adaptive-reuse plan. Finally, in early 2021, Los Angeles-based Lorcan O’Herlihy Architects (LOHA) won the



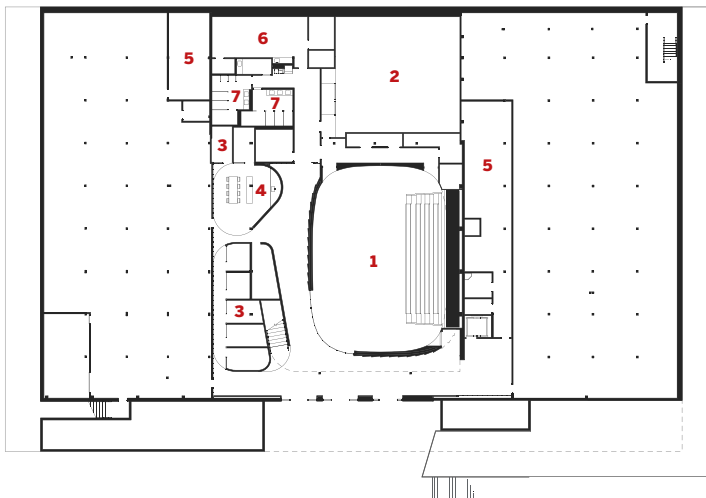


A **DYNAMIC** sense of motion permeates the entire structure (opposite). The sawtooth-profile shell of the performance-and-rehearsal space soars 16 feet (this image).

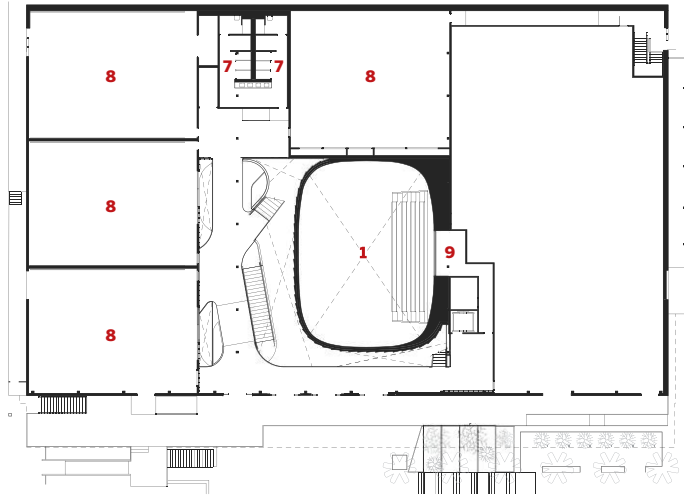


commission to transform major sections of the interior (along with seismic, acoustic, and foundation upgrades, plus light exterior restoration). In January, the old packing house was reborn as the Sandi Simon Center for Dance, a three-level, 33,400-square-foot study-and-performance venue.

Above a heavy timber post-and-beam structure, the former warehouse rises to its original sawtooth roof with operable north-facing clerestory windows. Outside, the industrial canopy that once shaded active loading docks runs the length of the south elevation—and the newly repainted word “Sunkist,” in the brand’s jaunty shadow font, adorns the pale stucco exterior. (At some



BASEMENT PLAN



GROUND-FLOOR PLAN

- 1 PERFORMANCE STUDIO
- 2 TAP STUDIO
- 3 OFFICES

- 4 FACULTY LOUNGE
- 5 MECHANICAL
- 6 TRAINING ROOM

- 7 RESTROOMS
- 8 STUDIO
- 9 CONTROL ROOM



THE 1918 facility was strategically sited along railroad tracks (top) and became one of the highest-volume fruit packers in the nation in its heyday (left).

PHOTOGRAPHY: COURTESY ORANGE PUBLIC LIBRARY AND HISTORY CENTER (BOTTOM)



DANCE SPACES have sprung floors with vinyl surfacing (above). Maple floorboards from the original factory floor were repurposed on the interior as vertical cladding (right).

point, possibly by 1945, this packing house joined the Sunkist cooperative—and the city later stipulated that the word remain.) The high-ceilinged 57,650-square-foot plant, which included some additions to the 1918 version, rose one story above a dark, dank basement, formerly nicknamed “the dungeon”—untapped potential that became central to LOHA’s strategy.

Bringing daylight and a dynamic sense of motion through the entire structure, the architects carved out the center of the original workspace floor, opening up a large light well and dropping the entry level one story to the former basement. There, LOHA inserted an object-like 2,900-square-foot performance-and-rehearsal space that soars 16 feet. Nearby, another volume—also curvy and freestanding—houses faculty offices and a small box office. Alongside it, a broad stairway ascends to catwalk-like circulation, obliquely stitching together the open edges of the upper floor and a new mezzanine, or loft, atop the double-height performance space. A third free-form pod on the new entry level encloses a lounge/meeting room. Together, the three curvilinear volumes play against one another like dancers shaping the space between them, some of it tall and narrow. Five airy (and orthogonal) dance studios, along the periphery, form a contrasting backdrop to this archi-





VIEWS INTO the studios invite students to learn, even casually, from watching others in class (left and bottom). Inside the performance/rehearsal space, mirrors slide aside, permitting retractable bleacher seating to descend (opposite).

tectural tango. The program also includes two classrooms, a training room, plus casual breakout areas. Whereas the dance center fills the building's western two-thirds at the former packing level, it occupies only the middle bays of the existing basement.

The conversion of a subterranean realm into a welcoming entry floor benefited from an existing plaza beside it, sunken a full story below street level and connected to it via stairs and ramps. (The university built it in 2019 to allow plaza-side dorms to rise an extra story without exceeding the above-grade height cap.) There, on the building's south face, LOHA ushered in daylight through multiple glass entrance doors—though the most even illumination comes through the sawtooth roof. Letting rays and sight lines penetrate the entire place, the architects used translucent, channeled polycarbonate sheeting for many partition walls and cut interior storefront windows, or viewing apertures, into the studios.





The design also lets users experience the vintage warehouse in newly revealing ways, bringing everyone dramatically closer to the sawtooth. “We simply painted it white,” says LOHA founding principal Lorcan O’Herlihy, “allowing the rawness of the original details to read through.” Underfoot, most circulation areas have existing concrete floors, now micro-topped, whereas dance spaces have sprung floors with Marley-type vinyl surfacing (except for the tap-dancing studio, which has the classic wood). LOHA salvaged the original maple planks from the cut-out packing-room floor, repurposing them as historically evocative vertical cladding around the office volume and main stairway. But all the new millwork—for sculptural hang-out areas, as well as the performance space’s shell—is pale virgin maple, finished with sleekness and precision, simultaneously resonating and contrasting with the reclaimed work-worn hardwood. And playfully echoing the jagged roof, the performance volume’s cladding has a vertical sawtooth profile that follows its curving form like the teeth of a circular saw blade.

In the spirit of citrus packing (and dance studies), these hardworking interiors have retained some of their industrial character, although the original shell and roof, now reinforced with steel rods and struts, are primarily what remain. With LOHA’s recent work occupying only about 57 percent of the building, more change is coming: arts spaces of yet undetermined program and design will eventually flank the dance hub, all under the same roof.

“This project is an essential anchor for the arts corridor we envision

here,” says Colette Creppell, vice president of campus planning and design. “Nearby, Chapman already has its Dodge College of Film & Media Arts and the soon-to-be-expanded Hilbert Museum of California Art. It’s all still evolving.”

Meanwhile, on the dance center’s opening day, Creppell recalls, “Swarms of students came flying and dancing in—it was a moment of sheer joy!” Ever since, they’ve been pirouetting and leaping through the great spaces where oranges once rolled. ■

Credits

ARCHITECT: Lorcan O’Herlihy Architects — Lorcan O’Herlihy, principal in charge; Ghazal Khezri, project director; Ian Dickenson, principal; Joe Tarr, Abel Garcia, project leads

ENGINEERS: Structural Focus (structural); Buro Happold (m/e/p); KPFF (civil)

GENERAL CONTRACTOR: R.D. Olson

INTERIOR DESIGNER: Dotrio

CONSULTANTS: Veneklasen Associates (acoustics); IN-FO.CO (signage); Historic Resources Group (historic)

CLIENT: Chapman University

SIZE: 33,400 square feet

COST: withheld

COMPLETION DATE: January 2023

Sources

WINDOWS: Arcadia

THEATRICAL DRAPERY: Rosebrand

PAINTS AND STAINS: Dunn Edwards

INTERIOR FINISHES: Arktura (acoustic wall tile); Capri (rubber-cork floor tiles); Tarkett (carpet); Westcoat (concrete microtopping); Extech (polycarbonate panels)

CÂMARA MUNICIPAL DA TROFA | TROFA, PORTUGAL | NOARQ

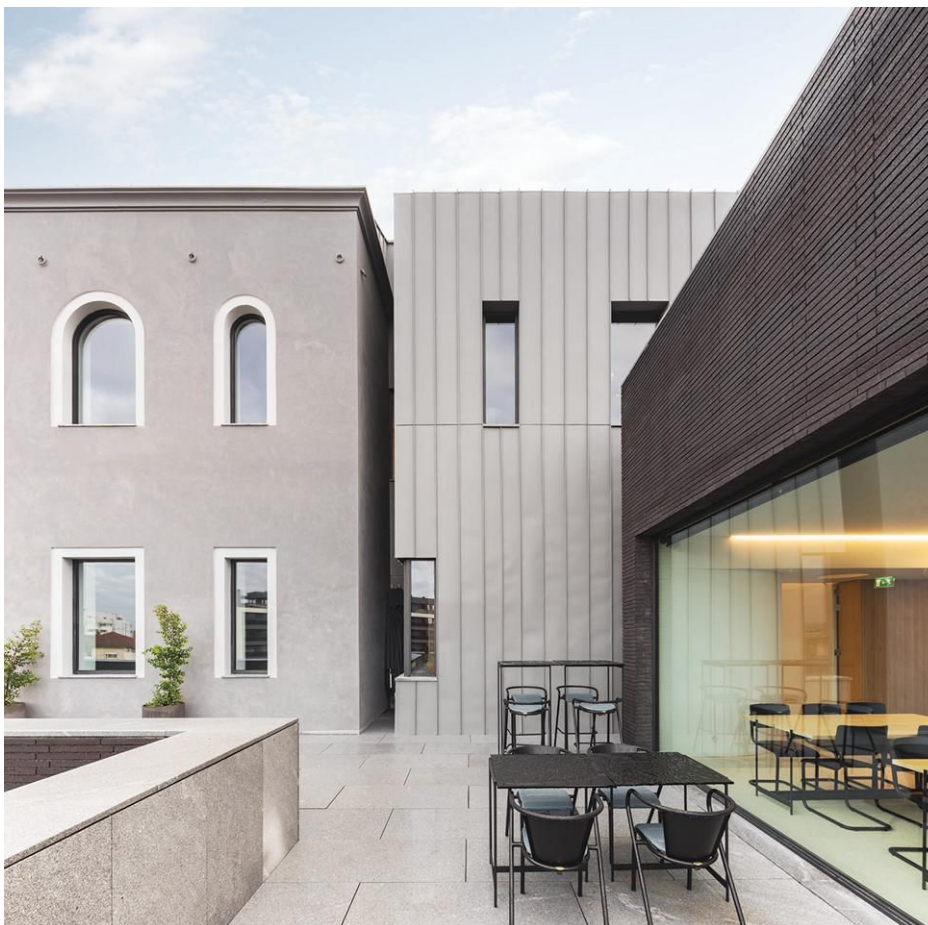
For the People

A striking town hall features a somber exterior with luminous public spaces inside.

BY PANSY SCHULMAN

PHOTOGRAPHY BY ATTILIO FIUMARELLA





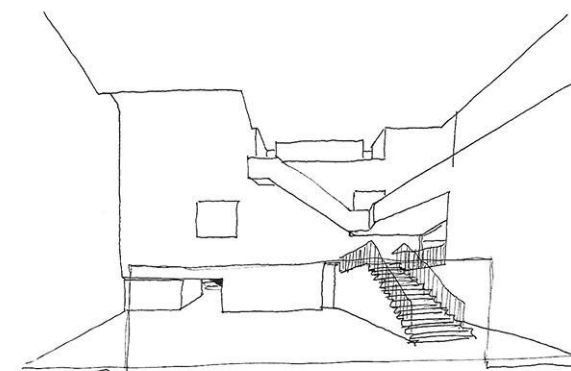
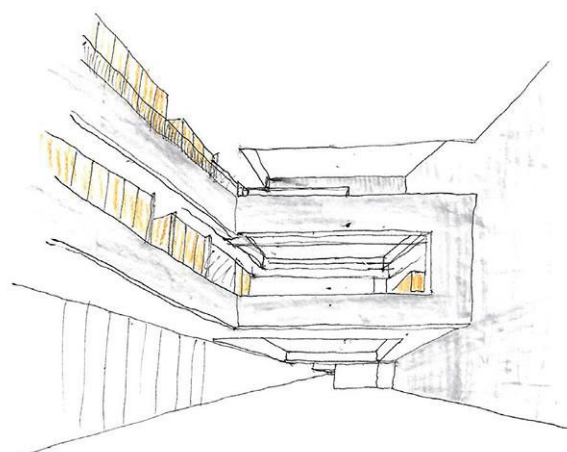
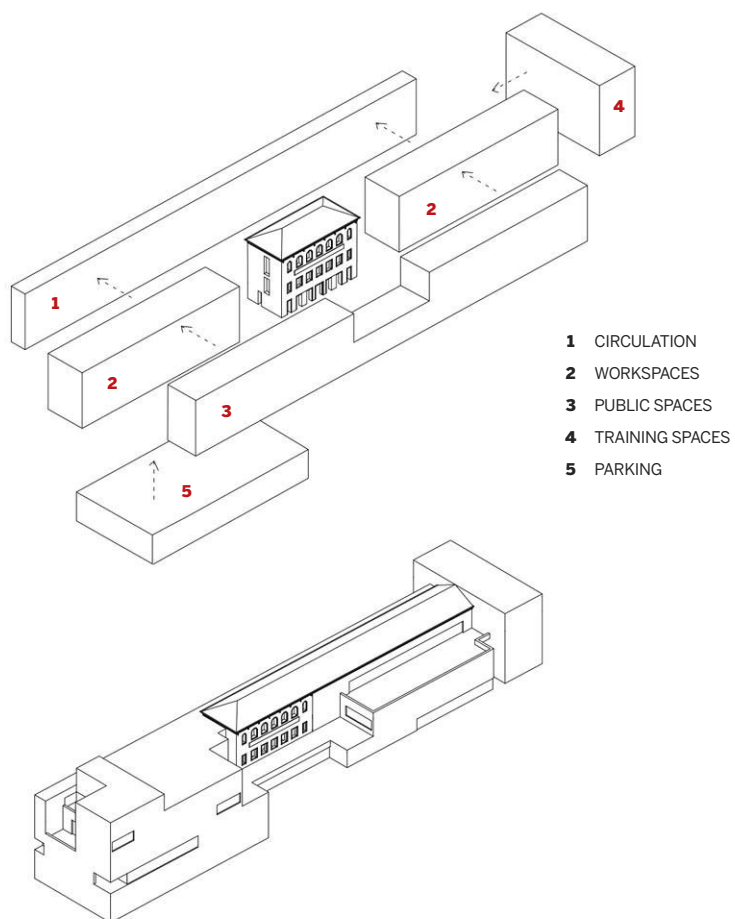
UNTIL November of last year, Trofa was the only municipality in Portugal without a town hall. Though it lies on an ancient route that dates back to the Roman Empire, the small industrial center only gained administrative autonomy in 1998. Since then, some civic functions were carried out in a renovated residential building and most others scattered to sites throughout the city. “It was a joke,” says architect José Carlos Nunes de Oliveira, whose firm, NOARQ, was awarded the design of the Câmara Municipal da Trofa in a 2016 competition.

The new building, financed in part with funding from the European Union, concentrates for the first time the city’s public offices and administrative spaces in a central location, off a major avenue and steps from a historic chapel and park. Presented with a rectangular site that contained the abandoned buildings of a former grain-processing facility, NOARQ chose to preserve a warehouse at the center of the plot, extending its roof toward the southern end of the site, and nestling it within five new volumes clad by slender black brick.

The firm’s striking choice of exterior is a nod to the historical lineage of Trofa, whose buildings were once blackened by coal smoke from the busy rail lines to which it owes its development. Trofa is relatively young by European standards—its railway station was inaugurated in 1875 and, soon after, food processing, milling, metalworking, and textile industries settled there to take advantage of easy distribution to the larger cities of Porto and Braga to the south and north, and eventually to Guimarães to the east. Today, about 40,000 people live and work in the city, which has maintained its industrial and manufacturing heritage. A bevy of Trofense factories produce goods such as tires and automotive parts, hydraulic equipment and tools, Styrofoam, and plastic bags.

NOARQ’s building is somewhat of a behemoth, belying its provincial context; at 67,000 square feet, the design tripled the area of the original brief, which, de Oliveira said, lacked appropriate space for the public. Evocative of a train-car itself, the long and narrow structure’s somber facade and limited exterior glazing seemingly puts it at odds with many other civic architectural models of our era, which emphasize openness and transparency. But this is not a contradiction in terms: NOARQ’s concept evokes the mundane nobility of civic

A RESTORED industrial building (top) is at the core of the new town hall (opposite) and backdrops a terrace on the second level (left).



A TRIPLE-HEIGHT ceiling in the building's public halls (right) allows visitors to look up into the offices of city workers above (bottom, right), its light scoop expressed on the exterior (opposite).

service, recalling “a worker in a black suit” rather than idealized and lofty aspirations of governance. “Brick is not just a covering—it is integral and ancestral,” says de Oliveira. “We chose this magnificent handmade black solid brick, which corresponded to the solidity of the image that a political building should emanate.”

Though at first glance the building is somewhat forbidding, a closer look uncovers details that pleasantly complicate its formal expression. Subtle curves are tucked in among the blocky masses, and the almost seamless exterior brick gives way in the middle of the building's length to reveal the light gray facade of the renovated factory building, which houses the public entrance.

“Architecture is about a composition between the dark and the light,” says de Oliveira, who relocated NOARQ to Trofa from Porto almost 10 years ago. He founded his firm in 1998 and has been a longtime collaborator of Álvaro Siza; working on the design team for several of the Portuguese Pritzker laureate's projects since 2000, including a club house in Vidago, Portugal (2010) and the Abade Pedrosa Municipal Museum in Santo Tirso, Portugal (2016). The influence of Siza's so-called “poetic modernism” is apparent in NOARQ's largely residential portfolio and on the Trofa project in particular, in which de Oliveira also references Alvar Aalto's 1949 Säynätsalo Town Hall, similarly brick-clad, as a defining precedent.

The lesson in contrast continues inside, which is outfitted in warm light wood and bare concrete, at moments as striking in its brightness as the exterior is in its darkness. According to de Oliveira, the firm works in “the Vitruvian tradition,” selecting the elemental materials of brick, wood, and stone for their “honesty” as well as their durability and low maintenance needs. Because it is a civic project, function and longevity were of foremost concern in the design: “We wanted an austere and serene building that would resist time,” says de Oliveira. “Budget was limited, and we knew that public buildings are not properly cared for—maintenance does not get votes or political victories.”

Nonetheless, de Oliveira was entranced by the romantic ruins of the former factory building, which, he says, were evocative of a cathedral. “We looked for a landscape within the building and were amazed by the light and the





WARM TIMBER accents complement expanses of concrete throughout: on the central staircase (below, left), in an employee-training room overlooking the south wing (below, right), and in waiting areas (this image).





THE PRESIDENTIAL
conference room (this
image) is on the top level of
the renovated factory
building.

high ceilings, and we thought to maintain that concept in the receiving spaces.” The renovated factory building makes up the core of the new complex, hosting the general assembly hall on the ground floor, offices on the second, and a roomy, light-filled conference room on the third.

The public spaces are concentrated along the west elevation on the ground level. Here, civic aspirations are more apparent in the triple-height ceiling that allows one to look upward and into the offices of the city workers above, which are enclosed by glass, so that, de Oliveira says, “the objective of fulfilling the transparency of political power becomes a reality.” Sofas and chairs in the northern wing are provided for visitors waiting to be ushered into the various offices, while the largely unfurnished southern wing can host events and other gatherings. Two employee entrances are on each end of the eastern side of the building, granting access to a hallway that spans its length.

The spatial logic of the building, which houses about 200 civic workers, dictates that departments that require the most direct contact with citizens—taxation, building, press and communications, waste management, and the postal service—are on the ground floor. Located on the second level are offices, meeting rooms, and lounge areas for city planning, strategy and financial management, the legal department, and human resources, with employee access to a west-facing terrace. The top floor is designated for elected officials (including city

council members and the mayor) and their support staff. The mayor’s office has its own terrace, tucked between two suspended volumes on the northern facade, which faces the city center and park.

Through a delicate balancing of contrasts, the Câmara Municipal da Trofa manages to both convey a quiet power and carry out its purpose, resulting in a civic building that pays equal respect to those who work there, the public they serve, and its setting. Now NOARQ is turning its attention to the construction of a bridge linking the cities of Porto and Gaia, a commission won in a 2021 competition against larger firms that included Zaha Hadid Architects and Herzog & de Meuron. ■

Credits

ARCHITECT: NOARQ — José Carlos Nunes de Oliveira, design lead; André de Oliveira and Gaia Ferraris, project managers

GENERAL CONTRACTOR: Telhabel Construções

CLIENT: Câmara Municipal da Trofa

SIZE: 67,000 square feet

COST: \$10.8 million (total); \$9.2 million (construction)

COMPLETION DATE: November 2022

Sources

MASONRY: Vale da Gândara (facade brick); Cortartec/Ancon (anchors)

GLASS: Vitrochaves, Saint-Gobain

HARDWARE: Assa Abloy

CUSTOM WOODWORK: J&J Teixeira

WALLCOVERINGS: Forbo

PHOTOVOLTAIC SYSTEM: Pritermica, Astronergy



VARIED brick patterns create shadow and texture, while ground-level glazing adds transparency (this image and opposite).

Campus Living

Two purpose-built residential colleges rethink the student experience at Princeton University.

BY LEOPOLDO VILLARDI

IF THE HUM of heavy machinery, orange construction fencing, and countless detours aren't obvious enough, a building boom is under way at Princeton. "In fact, it's the largest expansion of the campus in our history," says university architect Ron McCoy. "We are adding over 3 million square feet of new facilities." An art museum designed by Adjaye Associates is rising in the middle of campus. To the east, Ennead Architects is stewarding a new facility for the School of Engineering and Applied Science that will stretch a quarter-mile long. Princeton is building farther south, too—across Carnegie Lake, where the 85-acre Meadows Neighborhood will soon come to life. It's all a part of Princeton's 2026 Campus Framework Plan, which outlines a vision to expand the undergraduate student body.

But where will these future scholars live? More important, how will architecture shape their experience on campus? Last fall, New York-based TenBerke, formerly Deborah Berke Partners (page 27), completed Princeton's two newest residential colleges, on the site of the Class of 1895 Field—giving the university's mission a worthy architectural expression. Totalling 485,000 square feet and each housing 510 students, Yeh College and New College West are the first projects to be completed under the framework plan and rank as the firm's most ambitious endeavor to date. And, with Princeton's southward advance, they will take on

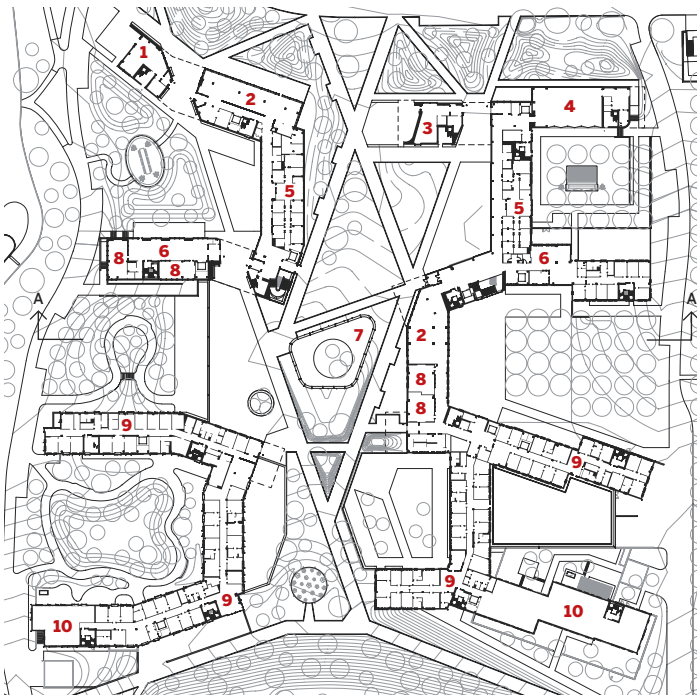
increasing prominence at the heart of a reoriented campus center.

Social life at Princeton has long been dominated by upperclassmen (and, at times, exclusionary) "eating clubs"—off-campus dining halls that are not affiliated with the university. Attempts to reshape the student experience, often foiled by proponents of the club system, put Princeton behind peer institutions in establishing an on-campus, residence-based support system. Harvard, for example, created its "house" system in 1928. Yale followed two years later with its "college" system, where students, under the leadership of a faculty member, live, dine, and learn together in a cohort of a few hundred until graduation. It wasn't until 1982 that Princeton successfully implemented its own system, and, as a result, many of the colleges today are cobbled together with disparate buildings rather than housed in singular, purpose-built facilities. That changed in 2007, when Princeton opened its first ground-up residential college—named Whitman—designed by Porphyrios Associates, which drew inspiration from the campus's Collegiate Gothic architectural traditions. Yeh and West followed, but with a decidedly different look.

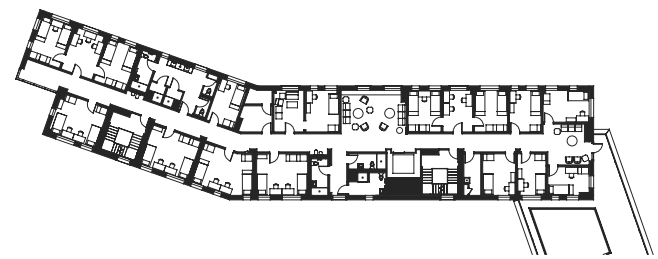
Graduated slate roofs, crenellated parapets, and pointed archways are nowhere to be found—the new colleges are "designed in a resolutely contemporary idiom." As TenBerke partner and Princeton alumnus



PHOTOGRAPHY: © CHRISTOPHER PAYNE/ESTO (OPPOSITE); CHRIS COOPER

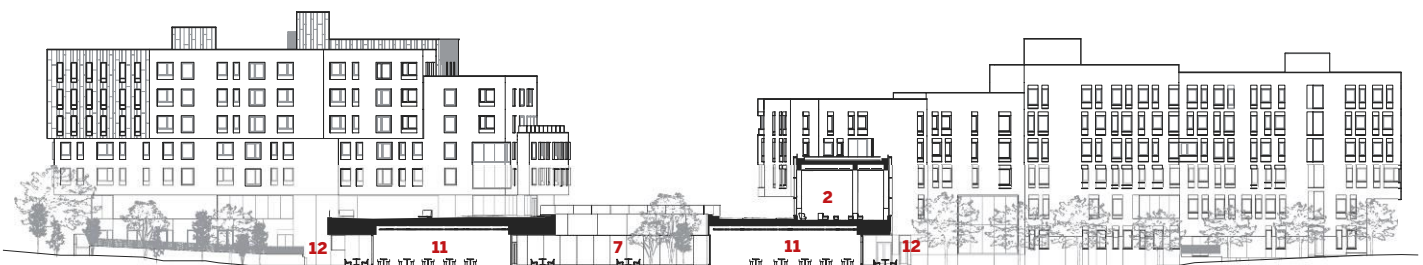


LEVEL-ONE PLAN



TYPICAL RESIDENTIAL FLOOR PLAN

- | | |
|-------------------|------------------------------|
| 1 CERAMICS STUDIO | 7 SUNKEN COURTYARD |
| 2 COMMON ROOM | 8 SEMINAR ROOM |
| 3 SIGNATURE SPACE | 9 STUDENT RESIDENCES |
| 4 REHEARSAL ROOM | 10 HEAD OF COLLEGE RESIDENCE |
| 5 STAFF OFFICES | 11 DINING HALL |
| 6 STUDENT LOUNGE | 12 DINING TERRACE |



SECTION A - A

Maitland Jones explains, “If a college is to confer its own identity, then our mission was to make something that looked a little different but was still consistent with the rest of campus.”

As with the Collegiate Gothic buildings that came to define Princeton’s early 20th-century campus, Yeh and West maintain an engaging sense of tectonic idiosyncrasy. “This project is the culmination of years of thinking about how to reinterpret historic campus architecture for the contemporary moment,” adds TenBerke partner Arthi Krishnamoorthy.

Rather than courses of warm Wissahickon schist and Indiana limestone used elsewhere on campus, the colleges’ facades are rendered in calcium silicate brick of a similar color. Soldier-course lintels and inset spandrels on Yeh, and graphite-colored metal frames and shading devices on West resemble pared-down versions of the articulated window surrounds of the Collegiate Gothic. In some places, curved corners collapse into single sharp points, like the bases of rounded oriels. Swaths of shallow reveal courses, hand-set with 16-inch-long bricks, create depth, while even deeper creases do the work of stringcourses, keeping the buildings from appearing too monolithic. The architects hope this mosaic of textures, lines, and shadows allow students to readily identify their rooms from outside and feel a sense of kinship with their home.

Although the two colleges share an architectural lexicon, certain distinctions give each an added sense of identity. Yeh is lower-slung, with courtyards that open to either side and zigzagging planar shifts. West is taller, with “treehouses” clad in metal panels, courtyards that look out to the surrounding woodlands, and gentle kinks in its plan.

Maintaining a connection to the school’s pastoral landscape was especially important. (After all, the Latin *campus*, meaning “field,” was first used at Princeton to describe the grounds of a university.) Near the traditional town-and-gown boundary of Nassau Street, compositions of discrete L-shaped and U-shaped buildings snake through the landscape in tandem to define a series of episodic, semi-enclosed courtyards. Yeh and West achieve a similar rhythm by taking the form of a series of interconnected three-sided courtyards. Each has a low-rise (and, in one section, subterranean) north-south spine, off which four finger buildings, like rhizomes, sprout outward and step upward. Openings cut through these, and, on approach, additional passageways, landmarks, or programmatic destinations come into view, like trail markers in a forest.



THE COLLEGES are linked by a dining hall (above), daylit by a sunken, birch-planted courtyard (top). College Walk provides pathways and planted lawns for walking and gathering (opposite).



YEH COLLEGE (above, left) and **New College West** (above), have distinct identities. Inside, spaces range from large, open common rooms (opposite) to intimate nooks (left).

In contrast to Princeton's existing residential colleges, extensive glazing at the ground level piques curiosity. The colleges' common rooms—places where students gather to study, meet as groups, or sit for a coffee—are on full display to passersby, as are seminar rooms, staff offices, a ceramics studio in West, and the Rehearsal Room, a performance space in Yeh that can open in two directions (out toward the rest of campus, or in toward one of the courtyards). Introverts uninterested in this architectural exhibitionism can find solace and solitude in any number of quiet study spaces on the colleges' upper floors.

Between Yeh and West is College Walk, a landscaped network of paths that, with the help of landscape architecture firm James Corner Field Operations, mitigates a 20-foot grade change and provides universal access across the



11-acre site. As with each college's architectural expression, landscape strategy diverges too: West mirrors the natural ecology of the adjacent woods, while Yeh, perhaps in a nod to Princeton's first consulting landscape architect, Beatrix Farrand, leans on specimen trees planted in rigidly gridded bosques. Beneath College Walk, a shared subterranean dining hall, daylit by a birch-planted sunken courtyard and by glazing to the east and west, provides a space for students of the two colleges to intermingle. Hard-to-miss hot-pink "social sculptures" by R&R Studios dot the landscape, and colored film applied to windows (a modern take on panes of stained glass in other colleges) reveal quotations in the sunlight.

On a typical floor in one of the residential wings, students of different class years are mixed and spread out into a range of room models, from singles and doubles to suites. Small floor plates encourage social interaction, and knuckles in the plan accommodate study spaces with movable furniture. A new addition to the university, requested by students, is fully nongendered restrooms (which required a variance to state building code). "One type includes a large room with sinks and mirrors that are shared by members of the same hallway community, with fully enclosed individual showers and toilets," says Andrew Kane, Princeton's associate vice president for university services. "And then there are single-occupancy bathrooms, with all fixtures, for students who want a different level of privacy."

"The new colleges are a little denser, a little taller, a lot more accessible, and significantly more sustainable than Princeton's six existing colleges," Jones of TenBerke adds. This project, pursuing LEED Gold status, will be used by the university to reach a goal of carbon neutrality by 2046.

Connected to a boiler system, the colleges will soon be integrated with a system of geo-exchange wells (786 are finished; 720 more are under way).

"What we're trying to accomplish with architecture and all the programming that supports it, is a way for students to discover new opportunities and make choices that launch them on an extraordinary life," says Kane. "It's about finding a smaller community at a university that might just be a little too large to know everybody." With rooms buzzing as loudly as the construction elsewhere, students seem to be at home on campus. ■

Credits

ARCHITECT: TenBerke — Maitland Jones, partner in charge; Arthi Krishnamoorthy, project lead; Aaron Plewke, project manager; Noah Biklen, design lead; Stephen Brockman, interior-design lead; Deborah Berke, collaborating partner

ENGINEERS: Langan (civil); Silman (structural); ADS Engineers (m/e/p)

GENERAL CONTRACTOR: Hunter Roberts Construction Group

CONSULTANTS: James Corner Field Operations (landscape); One Lux Studio (lighting); Ricca Design Studios (food service)

CLIENT: Princeton University

SIZE: 485,000 square feet

COST: withheld

COMPLETION DATE: Fall 2022

Sources

MASONRY: Arriscraft Linear Series

METAL PANELS: ATAS International

WINDOWS: OldCastle Building Envelope

CONCRETE: Tri-State Construction; High Concrete Group

DOORS: NanaWall; SAFTIFirst

ACOUSTICAL CEILINGS: Armstrong Tectum Ceiling

CODE | VIRGINIA | ESKEW DUMEZ RIPPLE, AND WOLF ACKERMAN

The Next Level

The Center of Developing Entrepreneurs steps onto Charlottesville's historic mall with an eye on the future.

BY DEANE MADSEN

PHOTOGRAPHY BY ALAN KARCHMER



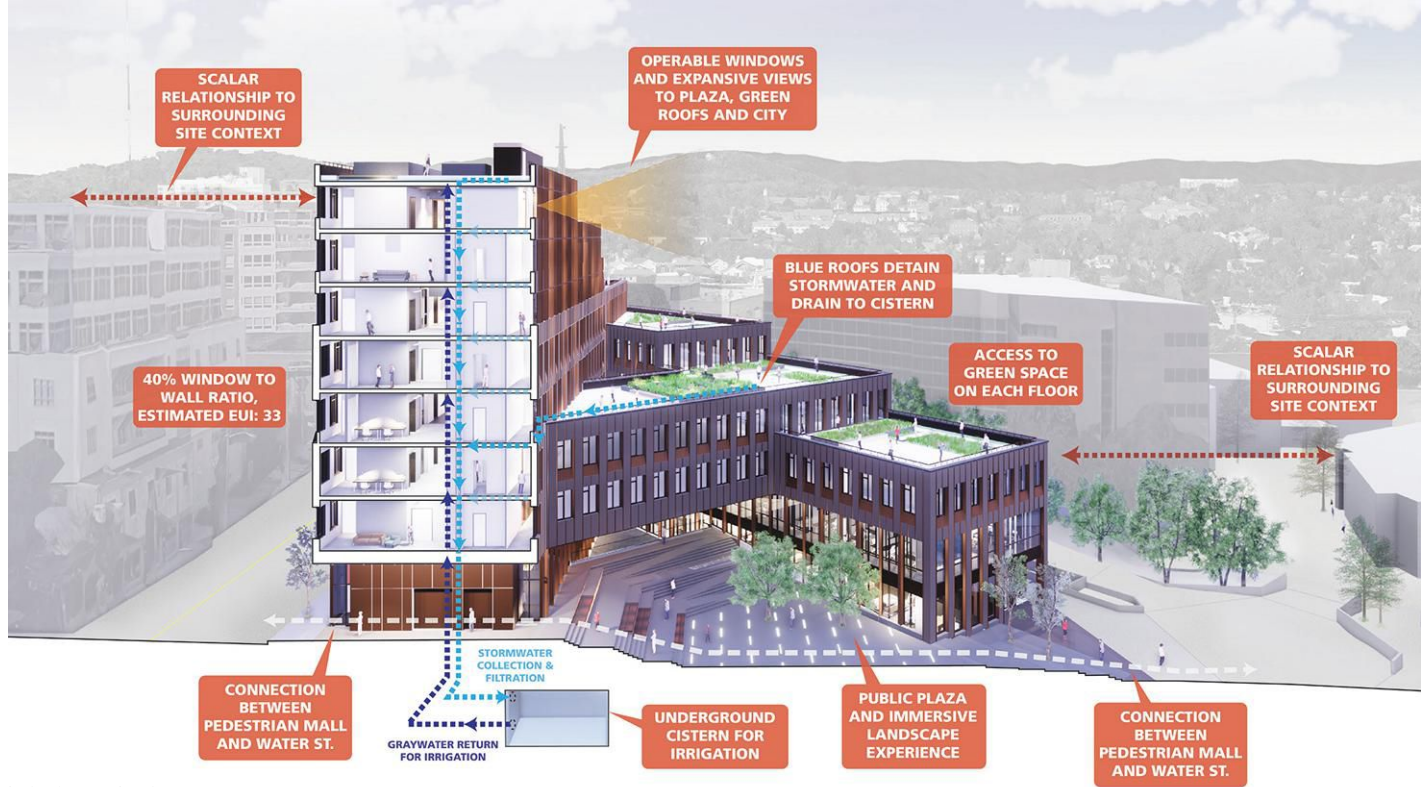
CHARLOTTESVILLE'S Center of Developing Entrepreneurs (CODE) is a beguiling chameleon, created to foster the growth of new local businesses while also engaging its community. Designed by the local firm WOLF ACKERMAN and the New Orleans-based EskewDumezRipple (EDR), which has a second office in Washington, D.C., the project was conceived by CSH Development to encourage nearby University of Virginia graduates to remain in the city. The goal: to transform it into a business hub that could compete with the likes of Silicon Valley and Austin, Texas. "The whole idea of the building was, utilizing the concept of a coworking space as an entry point for young people," says EDR principal José Alvarez. This vision—to attract and nurture talent within a building—he says, inspired a form that steps from level to level to symbolize how one can move up and "grow" a business.

Built on an incline, the structure changes scale at every elevation: On Main Street, the city's historic pedestrian mall, it is a three-story building, in keeping with the small shops lining this promenade. On Water Street, at its southern edge, the building rises nine stories from the ground to its apex. And, from the top of Vinegar Hill, looking back toward the mall, it takes on another perspective with a four-story band of brick rain-screen, with staggered windows above a ground-level plinth, which grows from single- to double-height as the building moves downhill across an 18-foot change in elevation. It also masks the point where the building steps up, adding another three levels clad in clay-colored metal above the four-story brick band on its Water Street frontage.

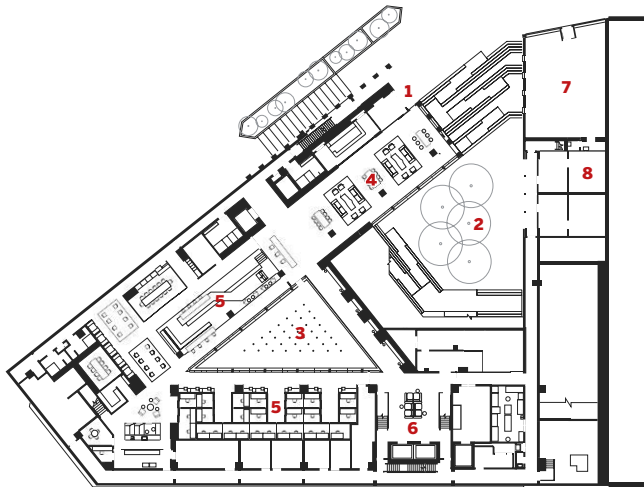
Topographically and sectionally complex, the building is straightforward in plan: A-shaped, with its taller side parallel to the street grid, its shorter side at a roughly 45-degree angle to it, and a two-story bridge connecting the two. (Work on the site also in-



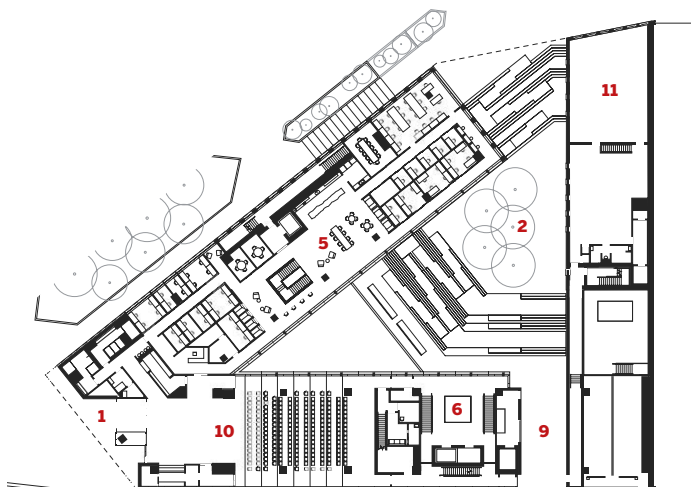
A HYBRID stair/ramp navigates the site's slope (opposite) and invites the public into a plaza (this image) at the heart of the building complex.



SECTION PERSPECTIVE



LEVEL-ONE PLAN



LEVEL-TWO PLAN

0 30 FT.
10 M.



MALL DIAGRAM

- 1 ENTRANCE
- 2 PLAZA
- 3 FOUNTAIN
- 4 LOBBY AND COFFEE BAR
- 5 COWORKING SUITE
- 6 GRAND STAIR
- 7 RETAIL
- 8 FOOD STALLS
- 9 BREEZEWAY
- 10 AUDITORIUM
- 11 OFFICE SUITE

THE CODE structure steps up to nine stories on its south side (below) providing a series of landscaped terraces for occupants (right) at successive levels.

cluded a three-story party wall building at the end of the mall above the parking garage). The Center's northeast corner faces the mall, with its lowest volume at the bottom of a hill (into which it is partially embedded) and seven levels of terraced green roofs stepping up behind it. Varied facade treatments disguise the full scale of the remaining structure. "Charlottesville is very cautious and approaches modernism with one eye looking sideways," says Fred Wolf, principal of WOLF ACKERMAN. "When you're trying to do something this large in the context of two- and three-story buildings that define the mall, there are many ways this could go wrong in terms of the scale differential."

The project kept on track in part due to the client's desire to give back to the community. The idea grew into a public plaza, between the building's two wings, that flows from the pedestrian mall. This open space navigates the 11-foot grade change between the streets with hardscape, affectionately called the "stramp" for its integration of steps and accessibility ramps into the sloped terrain, leveling midway at a plateau populated with young trees, café seating, and benches. At the top of this outdoor respite, a triangular water feature nestles into an acute angle under the two-story bridge connecting the building's north and south wings, with the mirrored underside of the bridge bouncing reflections throughout the plaza.

"Part of the success of the building and its urban gestures result from the client making that important. Rather than maximizing the development parcel, there was the foresight to understand that, in some cases, less is more," says Wolf's partner, Dave Ackerman. "Creating these kinds of public and private spaces, transforming the center of the mall, and giving it a sense of place wouldn't have been possible if they weren't on board."





THE FIRST two floors are occupied by shared coworking spaces (above and left), amenities like the outdoor fountain (opposite), and retail.

Health and well-being was another client driver for the 215,000-square-foot project. Interiors within the 50-foot-wide floor plates benefit from daylight, as well as natural ventilation from operable windows—which contribute to three and a half times the code-required fresh-air exchange—and attached green-roof terraces. These, among other sustainability incentives (RECORD, April 2022), led to an eventual LEED Platinum certification.

Programmatically, the building welcomes visitors into a public lobby with a coffee bar facing the mall. This transitions into coworking spaces, in a variety of configurations, deeper in the building and on its second floor. Amenities there range from a kitchen and conference room to showers, a podcast studio, and single-occupant work booths. The upper levels are all core-and-shell office spaces, ready for fit-out, each with its own roof terrace; the third floor is multi-tenant; the rest are intended for single companies. On the plaza's east side, the project retains a



mall-facing historic facade, with new-build infill containing retail spaces designed as short-term lease opportunities, for local vendors to test ideas in and build customer bases before expanding elsewhere.

Multiple circulation routes facilitate chance encounters among members of the coworking spaces and office tenants, while the glazed base of the building displays the buzz of activity within for passersby. Where Water Street descends from the top of the hill, the plinth's slope accommodates a 200-seat auditorium that can host events or expand the coworking area, its flexibility part of a future-proofing strategy. "The building is like a big mixing valve," Wolf says, "providing an environment that allows for interaction and overlap—that sort of cross-pollination among people doing totally different things."

With the pandemic's causing a shift in thinking around workplace best practices, the CODE strategy for a healthy and lively working environment that will pull people in—and, it is hoped, retain them—seems to be paying off. The building is almost fully committed, if not yet occupied, despite its opening's mid-pandemic timing. "This project proves the theory that a building with amenities makes it worth going back to work," says EDR's Alvarez. "It also creates community, so it's worth coming here to exchange ideas, versus staying at home or working from anywhere."

Today, the plaza and building have become embedded as part of the neighborhood, included as locations for the city's Tom Tom Festival (short

for Tomorrow Tomorrow), with its open-air events and Future Forward Conference. The Center of Developing Entrepreneurs provides Charlottesville's already vibrant and walkable Main Street with a community anchor that pushes the city's entrepreneurial spirit to new heights. ■

Deane Madsen is a Washington, D.C.-based writer and photographer specializing in architecture.

Credits

ARCHITECT: EskewDumezRipple
— José Alvarez, Noah Marble, Steve Dumez, Z Smith, Tyler Guidroz, Jill Traylor, Max Katz, Shannon Griffin, Tom Gibbons, Alex Swiggum, Kelsey Wotila, project team; WOLF ACKERMAN — Fred Wolf, Dave Ackerman, Mark Merolla, Joey Laughlin, project team

ENGINEERS: Fox & Associates (structural); Timmons Group (civil); 2RW (m/e/p)

CONSULTANTS: Gregg Bleam Landscape Architect (landscape); DKT Lighting (lighting design); STRUCTR Advisors (sustainability);

Thorton Tomasetti (energy modeling); MSTB (commissioning)

GENERAL CONTRACTOR: Hourigan

CLIENT: CSH Development

SIZE: 215,000 square feet

COST: \$93 million

COMPLETION DATE: March 2022

Sources

GLAZING: Guardian

DOORS: CR Laurance; Kawneer

CEILINGS: Arktura; Hunter Douglas

CARPET: Bentley

LIGHTING: MP Lighting; Lumenpulse

BANDS of black concrete, faceted white concrete, and concertinaed aluminum comprise the Kunstwerf's facade (this image and opposite).



KUNSTWERF | GRONINGEN, NETHERLANDS | STUDIO DONNA VAN MILLIGEN BIELKE AND ARD DE VRIES ARCHITECTEN

Curtain Call

Lessons from the past elegantly underpin an adroit and confident début by two emerging practitioners.

BY ANDREW AYERS
PHOTOGRAPHY BY IWAN BAAN

THOUGH FAR CLOSER to Germany than to the Netherlands' capital of Amsterdam, Groningen is a quintessentially Dutch town. Composed of winding streets and canals lined with picturesque and mostly low-rise brick buildings, the historic center is surrounded by a ring of often insensitive late 20th- and 21st-century development that sometimes shocks in its brutal jump in scale and materiality. Commissioned by the municipality, the Kunstwerf (literally "art yard"), which provides rehearsal and administrative spaces for four local performance companies, is located at the junction of the old and the new Groningen, on the site of a former gasworks. When submitting their schemes, competition entrants had to take into account the substantial landmarked remnants of this past, which include a row of workers' houses, a large electric-power station (already home to a renowned dance company, which is what prompted the creation of this performance cluster), a villa, and a small entrance pavilion, all dressed up in an eclectic livery of brown stock brick with stone and redbrick trim.

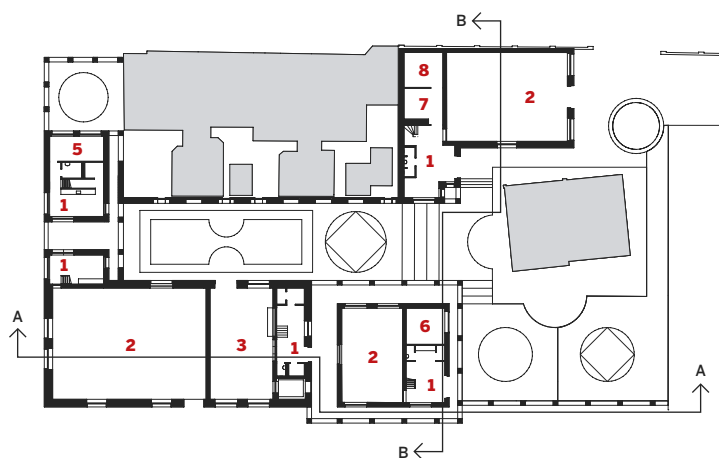
"It would have been simpler and cheaper to build an efficient, compact box, which is what the competition brief encouraged," says Donna van Milligen Bielke, winner of the 2017 design contest with her regular collaborator Ard de Vries. "But we didn't feel a big box was right here, either for the town or the historic buildings. So we took a risk and fragmented the program." To tie their project into the existing fabric, the duo built two L-shaped structures: a smaller one, containing a double-height rehearsal hall, located at the northeastern edge of the plot, between the housing and the power station; and, lined up along the north- and southwestern boundaries, a far more substantial building, articulated as three distinct volumes, which contains the other five practice rooms. Where the site's edges are free of buildings, the architects added arcades and colonnades to close the perimeter visually.

"I'm fascinated by the frontier between architecture and urbanism," explains van Milligen Bielke. "Not just by making a building in the city, but by continuing the city with a building. What can a project give the

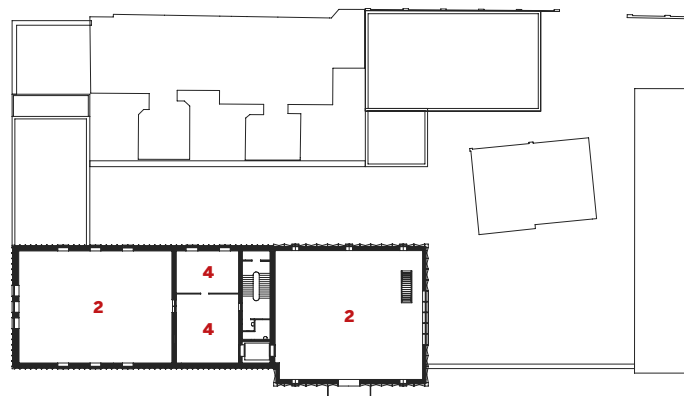


community?” To Groningen, she and de Vries offered “the courtyard, which brings the Kunstwerf’s users and the population together. We made it as big as possible so that it becomes a public place of conviviality.” Paved in brick, which ensures a certain continuity with the historic fabric, the enclosed yet porous space enjoys multiple accesses, including two tunnel entrances through the larger block, as well as planting by Piet Oudolf, which in summer will grow into low outdoor “rooms.”

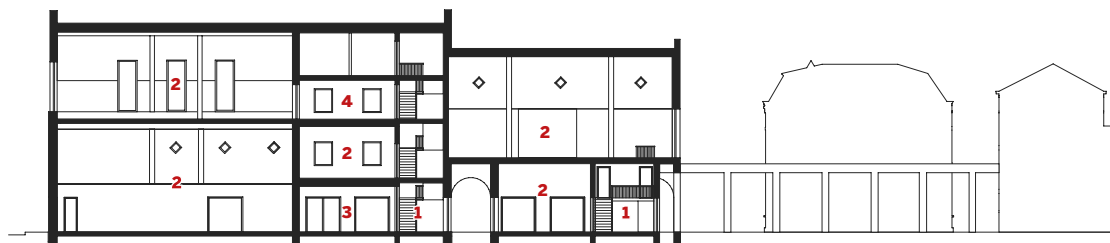
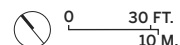
After addressing the urban parameters, the architects considered how they might construct their scheme. “We were up against two big constraints,” says de Vries. “First, because of gas extraction in the region, Groningen is prone to earthquakes. Second, the rehearsal spaces needed to be acoustically insulated both from each other and the neighbors.” After studying all the options, the only viable solution was a steel frame—bendy enough to withstand seismic shaking—clad with thick concrete (prefabricated off-site) for acoustical performance. “Almost all the concrete pieces are different,” continues de Vries, “and the way everything connects had to be carefully handled because of sound transmission.”



GROUND-FLOOR PLAN



SECOND-FLOOR PLAN

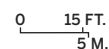


SECTION A - A

- | | |
|------------|----------------------------|
| 1 ENTRY | 5 OFFICE |
| 2 THEATER | 6 TECHNICAL/EQUIPMENT ROOM |
| 3 LOUNGE | 7 DRESSING ROOM |
| 4 WORKSHOP | 8 STORAGE |



SECTION B - B





ARCADES, courtyards, portals, and vignettes of historic buildings (this page) extend the urbanism of the surrounding context (opposite).

Next came the question of how the Kunstwerf should present itself to the outside world. “These big rehearsal halls are an essentially closed function, but, in such a delicately detailed historic context, we didn’t want our buildings to look big and blank,” recalls van Milligen Bielke. “We work with a lot of references,” adds de Vries, “and often talk by sharing images” (an Instagram-age method the duo compares to hip-hop sampling). In solving the Groningen conundrum, two sources proved particularly important: Sebastiano Serlio’s 1545 stage set for a





SOME THEATER SPACES open up to the city (left and above), while others are more enclosed (top).

tragic scene, whose multiple entry points and arcades informed the urban planning, and Hans Poelzig's now-demolished 1919 Großes Schauspielhaus in Berlin, whose blind facades, animated by colossal fluting, informed the Kunstwerf's exterior. In Groningen, banded black-and-white elevations—on the ground floor, black concrete, polished on its outer surfaces and sand-blasted under the arcades; for the next tier, white concrete in vertical black-edged faceted strips that cast shadows when the sun shines; and, up top, concertinaed white-aluminum cladding, separated into thinner bands by more black edging—are intended as foils to the warm brick. The elevation rhythm quickens as it rises, and in certain weather conditions will, the architects hope, merge with the sky as the lacquered metal reflects the light.

Unlike the highly controlled exterior, which the pair developed using multiple models and mockups, the interior was left to users to fit out, since the \$5.6 million construction budget was too low to cover interior design. "In the beginning, it was a bit of a shock," laughs van Milligen Bielke. "I mean, purple floors and walls next to an orange bathroom . . . But it's fantastic that the users were able to make themselves at home." Generously dimensioned, with concrete ceilings, steel framing, and HVAC often exposed, the Kunstwerf's interiors are tough enough to take whatever is thrown at them.

A true labor of love, this is van Milligen Bielke's first built project and de Vries's second (she was just 32 and he 37 when they won the

competition). "People have tried to label us as part of a new generation—the 'weaving' generation, they call it—reacting to SuperDutch," she says. Deceptively simple, the Kunstwerf is indeed beautifully woven into the historic web, as came evocatively alive on visiting. Stored in front of a ground-floor arcade, a trash can and brush brought to mind Pieter de Hooch's 1658 canvas *The Courtyard of a House in Delft*, where a bucket and broom dominate the foreground of a typically Dutch scene. Transposed in spirit, without the slightest resort to pastiche, the lessons of the past elegantly underpin this adroit and confident début. ■

Credits

ARCHITECT: Ard de Vries
Architecten: Studio Donna van Milligen Bielke; Julia Gersten

ENGINEERS: ABT Wassenaar
(structural); Deerns (m/e/p)

GENERAL CONTRACTOR:
Geveke / Croonwolder & Dros

CONSULTANTS: Piet Oudolf, Delta Vormgroep (landscape);

CLIENT: Municipality Groningen

SIZE: 28,000 square feet

COST: \$5,987,000

COMPLETION DATE: September 2022

Sources

METAL PANELS: TSV

WINDOWS: Alcoa

TILE: Mosa

DOORS: Alcoa; Merford

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A NEW headquarters complex for Amazon, by ZGF, is nearing completion in Virginia.

Material Makeover

The design and construction industry chips away at concrete's outside carbon footprint.

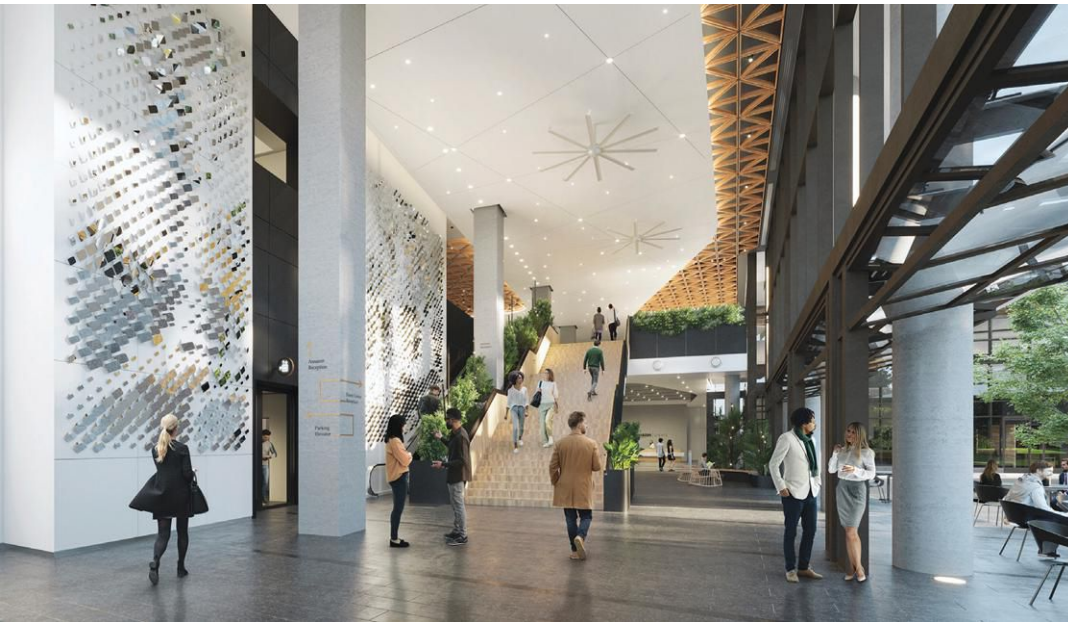
BY JOANN GONCHAR, FAIA

CONCRETE IS wonderfully versatile. It is durable, resilient, and relatively inexpensive. It can be used to create utilitarian infrastructure as well as expressive sculptural forms that range from the minimal to the muscular. And it has a long track record—concrete has been around in some form since before the Romans. Given all these attributes, it is easy to believe the oft-cited assertion that concrete is the most widely used substance on earth after water.

However, this ubiquitous material has a carbon problem. According to some esti-

mates, concrete is responsible for 11 percent of global CO₂ emissions. The main culprit? Cement, the “glue” that binds all of concrete’s ingredients together. Even though it makes up only 10 to 15 percent of the finished material by volume, cement is the primary contributor to concrete’s environmental footprint, due to its manufacturing method: raw materials, consisting chiefly of crushed limestone, are heated in a kiln to about 2,700 degrees Fahrenheit, causing the kiln’s contents to react and partially fuse. This chemical reac-

tion, known as calcination, produces a rock-like substance called clinker, which is then ground to produce cement. The energy required to maintain the kiln at the required temperatures naturally generates carbon, but so too does the calcination process itself, which releases CO₂ and is responsible for about 60 percent of the emissions of cement. This means that the most significant component of concrete’s carbon footprint is impossible to avoid unless the need for cement or clinker is reduced or eliminated.



THE VARIOUS structural elements on Amazon's new headquarters near Washington, D.C. (above), each have a unique carbon-reduction profile, but overall the savings average 15 percent (below).

The good news is that there are already some well-established strategies for reducing the proportion of cement in concrete. Contractors have long used so-called supplementary cementitious materials (SCMs) to replace some amount of cement in a typical concrete mix. Among the most common are fly ash and ground granulated blast-furnace slag, both waste products of other industrial processes, fly ash of coal combustion—usually at power plants—and slag of iron smelting. But fly ash is increasingly hard to come by as coal-fired power plants shutter, while the supply of slag is also variable, since in the U.S. it is mostly imported, points out New York-based Amanda Kaminsky, director of sustainable construction for the Americas at developer Lendlease and a former principal of Building Product Ecosystems, a public-private partnership focused on material circularity. Now ground-glass pozzolan (GGP)—sourced from post-consumer bottles and jars that might otherwise go to the landfill—is gaining some traction, since ASTM (American Society for Testing and Materials) standards on its use in concrete were published in 2020. GGP “scratches a few itches, both on the construction-supply chain side and on the municipal-recycling side,” Kaminsky says. Lendlease is using the product on an 800-unit housing complex designed by architecture firm Marvel, now under construction in Brooklyn.

Rather than replace cement, other strategies for reducing concrete's environmental

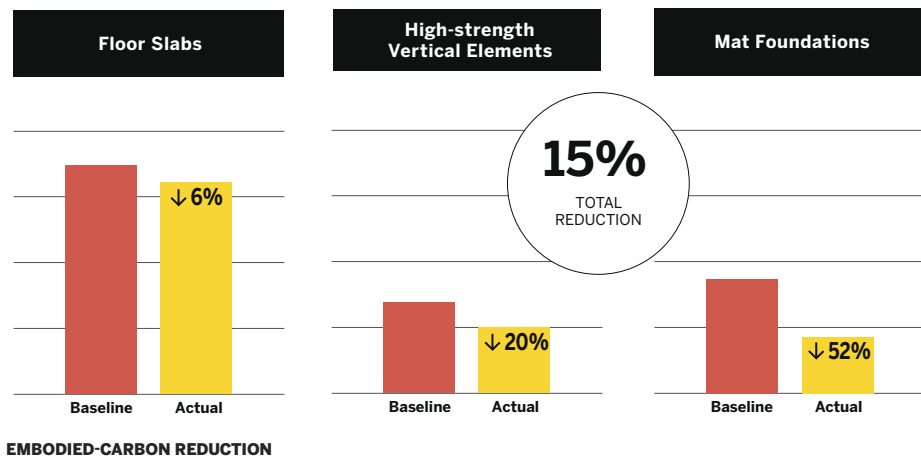
impact aim to use the material as CO₂ storage, including the one commercialized by Halifax, Nova Scotia-based CarbonCure Technologies. Its process, which the company licenses to concrete producers, injects waste CO₂ from industrial gas suppliers into raw concrete, where it chemically bonds with cement and creates calcium carbonate (commonly known as limestone), increasing the mix's compressive strength and thereby reducing the total amount of cement needed. On average, the technique cuts CO₂ by 25 pounds per cubic yard of concrete, according to CarbonCure. To date, the company has licensed its technology to more than 700 customers in more than 30 countries.

About 90 percent of the concrete used in

the ZGF-designed headquarters for Amazon now nearing completion in Arlington, Virginia, incorporates CarbonCure. “But it's not a silver bullet,” cautions Brian Earle, a ZGF principal. At Amazon, it is being used in combination with other strategies. For instance, the mixes for the foundation, columns, and shear walls for the two-building, 2.1 million-square-foot complex replace about half the cement with slag. “Introducing waste CO₂ into the mix achieves a modest reduction, but, combine it with other approaches, and the benefits all add up,” says Michael Cropper, a vice president at Thornton Tomasetti, the project's structural engineer. Some structural components for the complex have a 52 percent embodied-carbon reduction while, on average, the project's concrete is tracking at an at least 15 percent savings compared to typical build-ings of the same type in the region.

The carbon reduction contributes to Amazon's corporate environmental, social, and governance goals but is also integral to the complex's LEED Platinum target. Along with the low-carbon concrete, the buildings have high-performance facades, stormwater capture for irrigation and cooling-tower makeup, and use graywater for flushing. The all-electric headquarters will be supplied with 100 percent-renewable power from a utility-scale solar farm in southern Virginia.

Some of the more emergent solutions for concrete's carbon problem take their cues from nature. Prometheus Materials, for instance, makes a product that starts with microscopic algae, which naturally sequesters carbon. Based on the research of a team of scientists and engineers at the University of Colorado, Boulder, the technology depends on a patent-pending photosynthetic biomineralization process. The resulting “bio-cement,” when mixed with aggregate (the granular



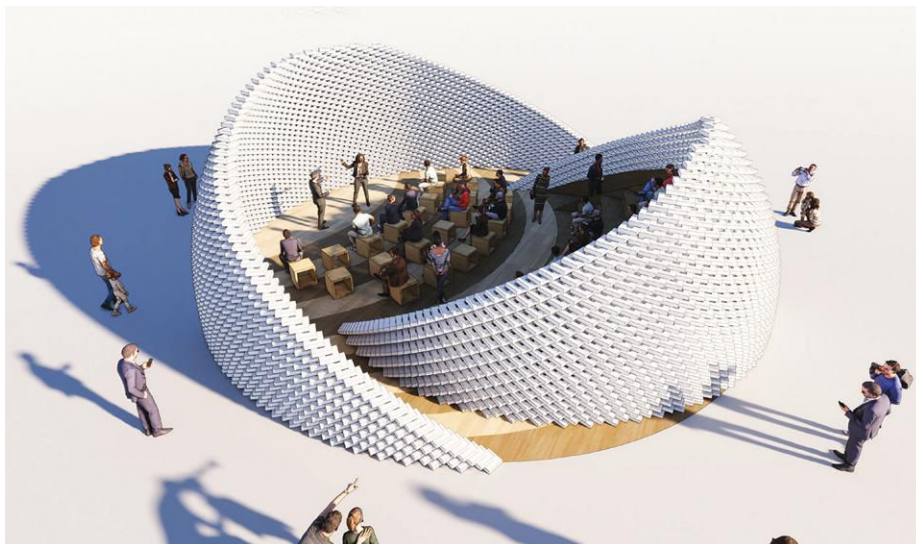
material in concrete, often quarried rock and sand), creates a zero-carbon building material with physical properties similar, though not identical, to those of concrete.

Last June, the startup secured \$8 million in Series A financing and, in January, received ASTM certifications for its load-bearing and non-load-bearing masonry units. Loren Burnett, president and cofounder, says the company is also working on precast and ready-mix products. Prometheus plans another capital-raising round in late summer, and is targeting early 2024 for completion of a manufacturing facility.

SOM has an equity stake in Prometheus. “We are always looking for innovative products that fill a gap in the market and that align with our values,” explains Brant Coletta, a managing partner in SOM’s San Francisco office. The firm made the bio-cement central to Urban Sequoia, its conceptual carbon-absorbing tower unveiled at COP 26, the United Nations climate conference held in Glasgow in late 2021. For the same event, it designed a pavilion of Prometheus bricks, though it was not realized due to the pandemic. In parallel with Prometheus’s ongoing research and development, the firm continues its own small-scale experiments to better understand the unique characteristics of the material. The bio-cement has, for example, more tensile capacity than typical concrete, offering the possibility of omitting rebar, further reducing carbon emissions, points out Yasemin Kologlu, an SOM design director.

Los Gatos, California-based Blue Planet Systems has taken a different tack. Rather than focusing on cement, the company is rethinking aggregate, since it is the largest component of concrete, comprising up to 90 percent of the material by weight. At its Bay Area pilot facility, Blue Planet captures the CO₂ emitted by a nearby natural gas-fired power plant, combining it with alkaline industrial-waste materials, including concrete demolition debris. The resulting reaction “grows” calcium carbonate that is 44 percent CO₂ by mass. According to the company, a cubic yard of concrete using its product in place of conventional aggregate can permanently store 1,120 pounds of CO₂, more than offsetting the 600 pounds of carbon that would typically be embodied in that concrete, making it carbon negative.

Blue Planet aggregate has been used thus far in demonstration projects, including one at the San Francisco International Airport. The company plans to expand its pilot plant later this year and is assembling an engineering



THE BIO-CEMENT developed by Prometheus includes microalgae bioreactors (top). SOM designed a pavilion of the material for the 2021 United Nations climate conference in Glasgow (above).

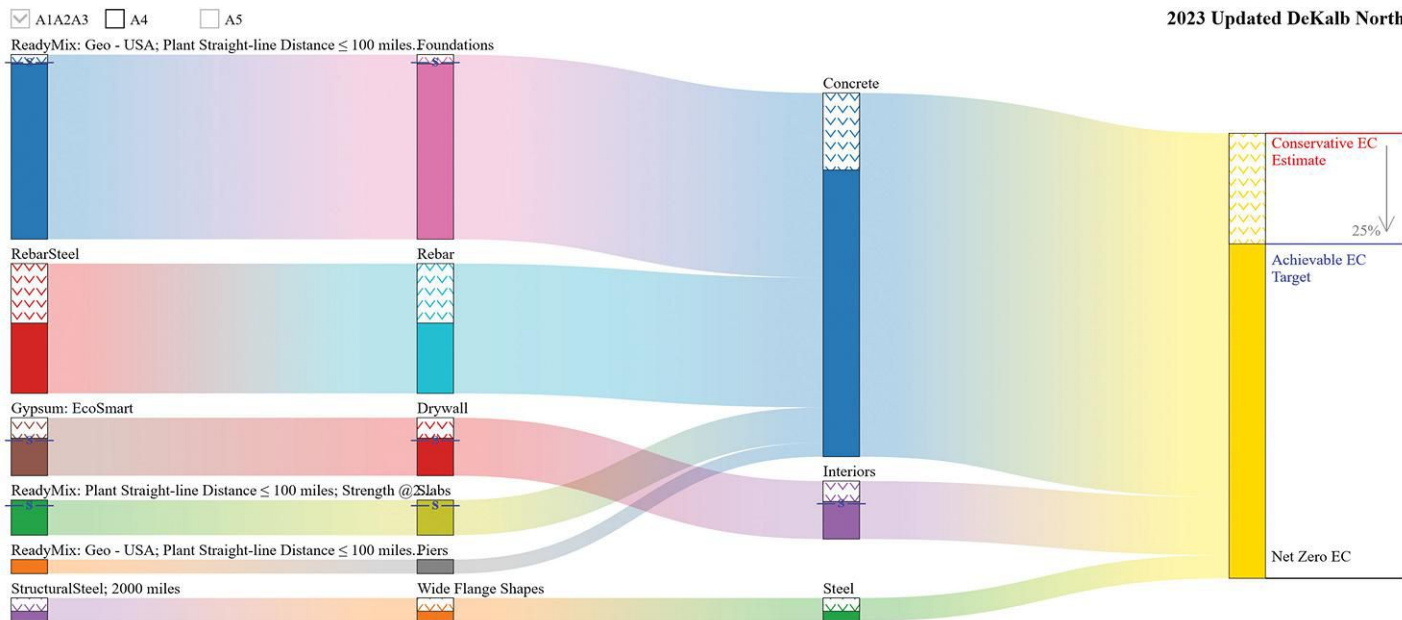
and construction team for a commercial-scale production facility, says David Gottfried, Blue Planet’s chief global impact officer.

Use of low-carbon concrete strategies—both leading edge and well established—should get a boost from recent legislation at the Federal and state levels. The Inflation Reduction Act (IRA), signed by President Biden in August, includes funds to incentivize the use of building products with smaller environmental footprints in public-infrastructure projects and government-owned buildings. It provides nearly \$4.5 billion, for identifying and procuring climate-friendly materials, to the Environmental Protection Agency, the General Services Administration (GSA), and the Department of Transportation. At the state level, similar “buy clean” policies have already been instituted or are wending their way through the legislative and policy-making processes in jurisdictions that

include Colorado, Oregon, Washington, Minnesota, and New York.

The legislative trend should fuel demand not only for low-embodied-carbon materials, but also for environmental-product declarations (EPDs)—reports commissioned by manufacturers that document the ways in which their products affect the environment across several impact categories, including greenhouse-gas emissions, or global-warming potential (GWP)—since many of the new policies require them. The GSA, for instance, recently published guidance for projects funded through the IRA, setting EPD requirements and GWP limits.

Once completed, EPDs are generally included in databases such as EC3 (also known as the Embodied Carbon in Construction Calculator)—a free tool, administered by the nonprofit Building Transparency—that now includes nearly 80,000 concrete



SANKEY DIAGRAM

EPDs, searchable by data points like manufacturer, region, and compressive strength. Such databases allow comparisons among products that are functionally equivalent and help project teams set GWP-reduction goals and track their progress through the life of a project.

Many design teams maintain that the most effective approach for implementing low-embodied-carbon concrete on a project is not to mandate a particular mix composition or a specific technology. Instead, architects and engineers should specify desired performance criteria—including compressive strength and maximum GWP. Magnusson Architecture and Planning has taken this route for Dekalb Commons. The two-building, 85-unit affordable-housing project in Brooklyn’s Bedford Stuyvesant neighborhood, slated to start construction this summer, is targeting Passive House certification and an overall embodied-carbon reduction of 20 to 30 percent (RECORD, October 2022). Magnusson hopes to replace up to 40 percent of cement in the foundations and slabs on grade with GGP rather than fly ash or slag. The architects would prefer the newer SCM in part because it comes from a more renewable waste stream, and preliminary information from a local supplier indicates that the carbon-reduction goals can easily be met. Even so, the project’s performance specification presents GGP as an idea but not a prerequisite for the concrete subcontractor selection, says Sara Bayer, the firm’s director of sustainability.



AT DEKALB COMMONS, an affordable-housing complex in Brooklyn (above), Magnusson Architecture and Planning aims to reduce embodied carbon by 20 to 30 percent (top).

The Amazon design team also emphasizes the importance of performance specifications rather than prescriptive ones. “As a structural engineer, I can’t design mixes,” says Thornton Tomasetti’s Cropper. He notes that with 200,000 cubic yards of concrete on the project (enough to fill about 60 Olympic-size swimming pools), there are more than 40 unique mixes, depending on their location in the buildings. All have different performance criteria, transportation requirements, strength-gain timelines, and formwork-stripping needs—parameters that influence construction sequencing, scheduling, and coordi-

nation, which fall within the contractor’s area of responsibility, says Cropper.

ZGF sees promising signs that low-carbon concrete, whatever its form, is gaining traction within the building industry. Not so long ago, when the firm told contractors that the design team wanted to reduce a project’s global-warming potential, the response was typically, “Global-warming what?” says Earle. But now, “they know what GWP is, and they know how to reduce it.” ■

CONTINUING EDUCATION

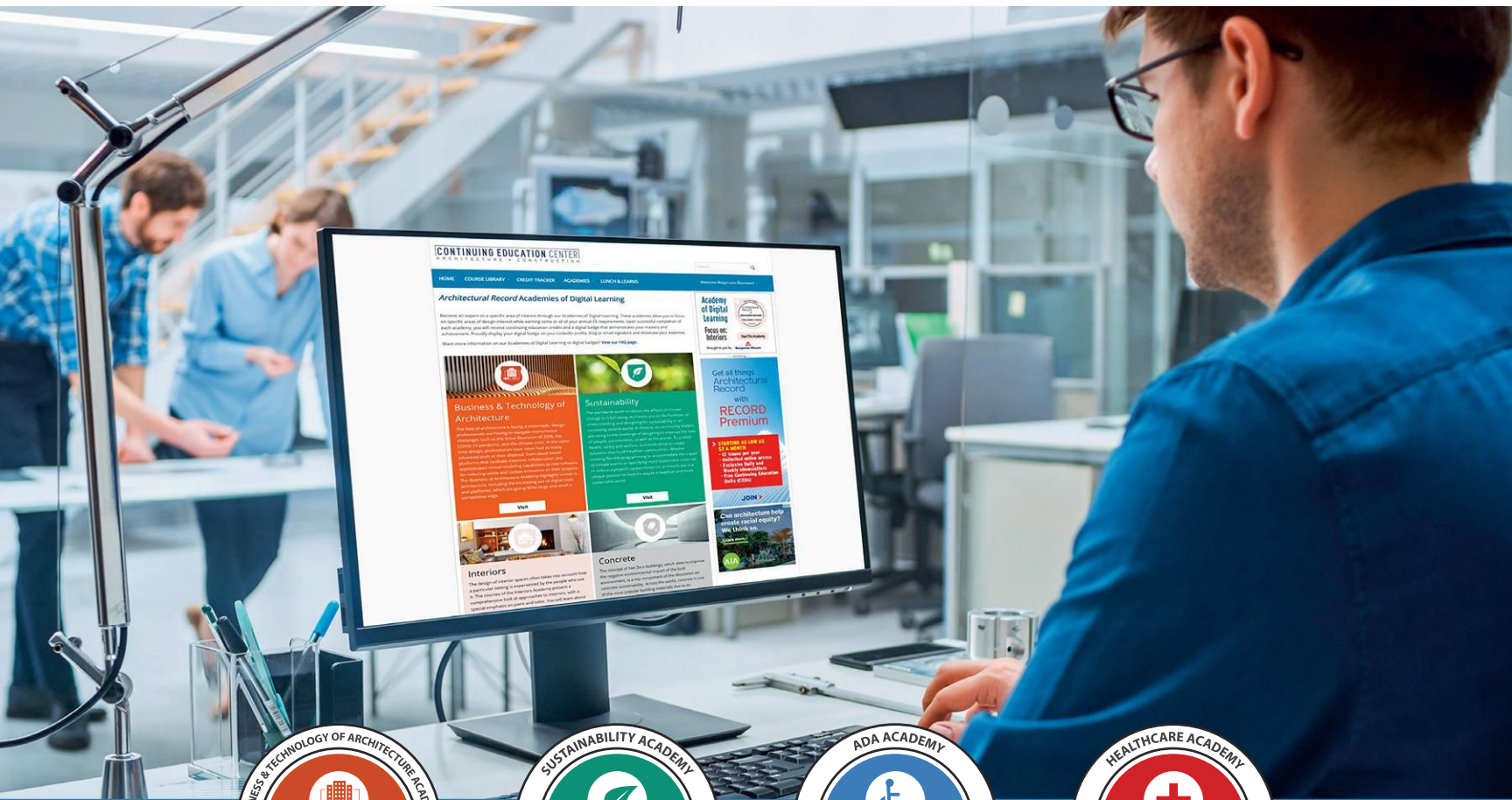
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Learning Objectives

- 1 Explain why typical concrete is a high-embodied-carbon material.
- 2 Outline the cement-manufacturing process.
- 3 Discuss research and recent innovations in concrete.
- 4 Discuss recent legislation and policy that relates to concrete.

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5. Network

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2) Each node works on finding a difficult proof-of-work for its block.

3) When a node finds a proof-of-work, it broadcasts the block to all nodes.

4) Nodes accept the block only if all transactions in it are valid and not already spent.

5) Nodes accept the block only if it contains the proof of work and the block hash matches the previous block.

6) Nodes accept the block only if it contains the proof of work and the block hash matches the previous block.

LIGHTING

Galaxy Digital

Young Projects

The SEED

BY DAVID SOKOL



GALAXY DIGITAL had reservations. The New York-based company, which specializes in digital assets and blockchain technologies, had found a 36,000-square-foot office in Battery Park City to replace its SoHo headquarters and accommodate rapid growth. Yet while commissioning Young Projects to oversee the new office design and buildout in late 2021, its top executive fretted that moving to a neighborhood associated with investment banking could suggest that Galaxy was just another voice in the crowd, rather than a leader in the emerging business of cryptocurrency.

“Every day we’re not in the bigger space is

a day of lost community,” firm founding partner Bryan Young recalls Galaxy founder and CEO Mike Novogratz saying, “but we also need to aim for an excitement that’s unlike a financial institution.” For this reason, the architects began distinguishing Galaxy from its workaday neighbors. Young Projects and its lighting collaborator, fellow Brooklyn-based studio The SEED, were given six weeks to finalize a concept with a completion date of mid-2022.

Young Projects, a 2020 Record Design Vanguard firm, is known for an exploration of aesthetics and materials in its residential and commercial interiors and custom house

projects. In 2021, the firm completed an apartment in nearby Tribeca using a series of plaster panels that had been cast on recycled furniture foam held in tension by hand-bent metal rods. Installed on the ceiling, the panels evoke historical ornamentation like plaster rosettes and tin ceilings yet seem avant-garde. When Young showed it to Novogratz, his client likened the ceiling to cryptocurrency’s combination of the familiar and the futuristic. By adapting such existing research to the Galaxy Digital interior, the architect was able to create an aura of strangeness at the project’s necessary warp speed.



A lively media ceiling in the elevator lobby (page 99) leads to a surprisingly soft and tactile reception area (above), subtly illuminated by backlit mirrors (top, right) and recessed fixtures.

Young identified the elevator lobby and reception as the best spaces for unique expression, comparing them to a threshold, where occupants may check their preconceptions of financial services. The elevator lobby initiates this mental reset with a low-resolution media ceiling by The SEED on which text from cryptocurrency's founding document (a white paper about Bitcoin released in 2009) traverses the screen in a *Star Wars*-style crawl.

For the walls flanking the reception area,

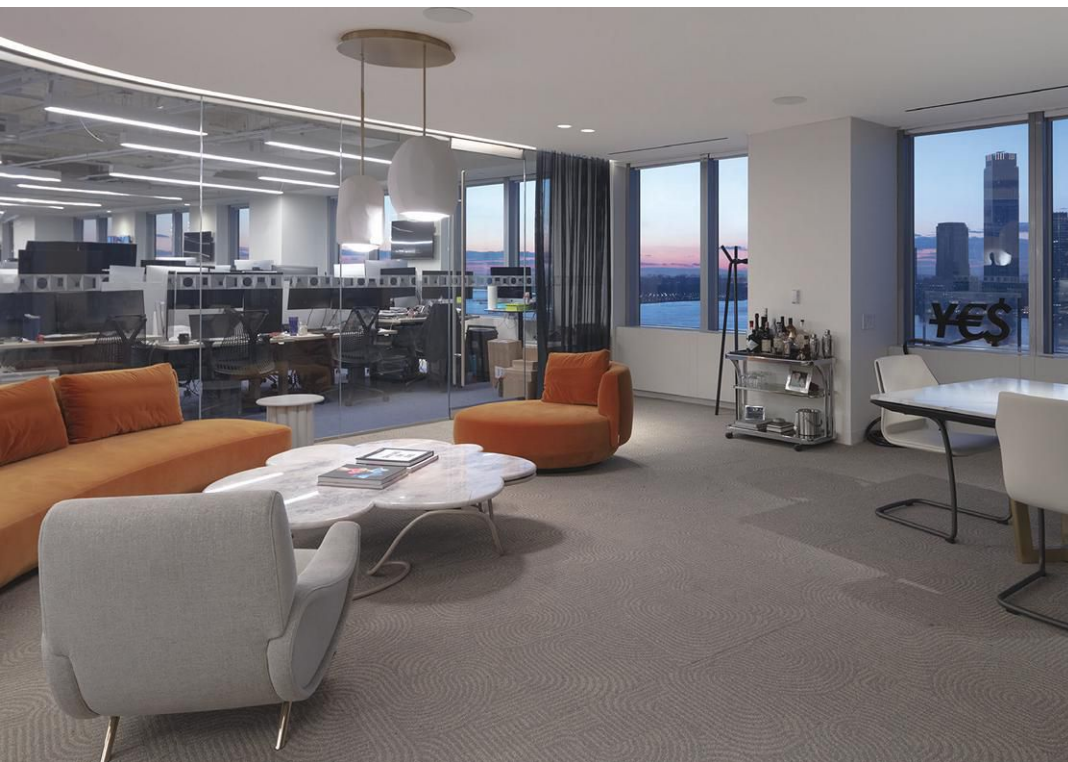


FLOOR PLAN

0 30 FT.
10 M.

- 1 ELEVATOR LOBBY
- 2 RECEPTION
- 3 CAFÉ

- 4 WORKSTATIONS
- 5 CONFERENCE ROOM
- 6 GATHERING SPACE



Curved glass walls and linear tube lights enliven workspaces (above and left), while in the café (opposite), bold pendants are offset by discreet ceiling mounts concealed by draping chains.

the architects developed a proprietary surface of plaster panels whose valleys and ridgelines connect, no matter how each component is rotated. According to Golsana Heshmati, founder of The SEED, this tactile surface is illuminated by low-output LED wall washers emitting a 3000-Kelvin glow; the luminaires are spaced widely apart to make sure their presence does not compete with the sculptural walls, while still calling attention to the 6-inch depth of the panels.

Pink furnishings dot the reception area for an additional unexpected touch. Also surprising are three suspended round backlit mirrors, which could be seen as figurative planets, providing ambient light. Heshmati describes them as an infusion of human scale to mitigate the expansiveness of the seating area. She adds that the mirrors underscore Galaxy's interest in community, because "they emphasize the importance of every person and of face-to-face communication."

Prior to Galaxy's occupancy, the Battery Park City office had been recently renovated for a solutions-driven data-science and clinical-research company. For the workstations, offices, and collaboration spaces located beyond reception, Young Projects and The SEED maximized reuse of the resources that were left behind. Both studios treated these interiors as opportunities for the connection and exchange that had been lacking in the SoHo headquarters. Young explains that his team employed sinuous glass partitions and a variety of carpet tiles to encourage staffers to use interior pathways for circulation as well as gathering. And while Heshmati notes that the lighting designers left much existing overhead infrastructure intact, they linked long linear tubes containing wide-aperture LEDs into graphic ceiling elements for wayfinding. Similarly, in the office's central café, rows of pendant lights interwoven with aluminum linked chains simultaneously hide ceiling-mounted systems and distinguish banquette and bar seating from other vignettes. "There's a very explicit difference between how you understand the ceiling versus how you understand the plan," as Young explains. "The plan is about movement, whereas the ceiling is about spatial definition. These are ideas about promenade and interaction that perhaps you could manifest only in a space like a crypto office." ■

Credits

ARCHITECT: Young Projects — Bryan Young, design lead; Mallory Shure, partner in charge; Udoiwod Udoiwod, Billy Hutton, Daniel Garcia, Caleb Ehly, Isabella Calidonio, Benjamin Smithers, Joanne Yau, project team

ENGINEERS: Robert Derector Associates (m/e/p/fs)

GENERAL CONTRACTOR: JRM Construction Management

CONSULTANTS: The SEED (lighting designer); Once-Future Office (signage/wayfinding); Duggal Visual Solutions (signage fabrication)

CLIENT: Galaxy Digital

SIZE: 36,000 square feet

COST: withheld

COMPLETION DATE: December 2022

Sources

HARDWARE: Ives; Dorma

INTERIOR FINISHES: Fenix; Cambria; Casalgrande Padana; Tilebar; Stile/LVWood; Interface; The Rug Company; Rug Star; Tate; Fabricoil; Master Works

LIGHTING: USAI; 3G Lighting; Artemide; XAL; Luceplan; Vode; Delta Light; Eclipse; Lutron

FURNISHINGS: Halcon; Haworth; OFS; Cassina; Miniforms; DDC; Bernhardt; Maharam; Knoll; KVADRAT; Muuto; West Elm; DWR; Davis



Glowing Introductions

New fixtures channel classics or reimagine them with flexibility.

BY SHEILA KIM

Berlin

A few years ago, designer Christophe Pillet created the disc-shaped Berlin ceiling and wall fixture for Oluce. As a follow-up, he's translated that design into a floor lamp that features a slim tubular stem with two LED-illuminated discs, which are rotatable, to aim light where it's needed. The floor version is finished in anodized brass or matte black.

oluce.com



Northport

Designed in collaboration with Robert A. M. Stern Architects, this outdoor collection by Landscape Forms is a contemporary take on the traditional acorn streetlamp. It comprises a 3' tall path light and various area-light configurations in three heights. An optional decorative LED-lit stem recalls the classic gaslight.

landscapeforms.com



Constellation

Architect David Rockwell and his eponymous firm are well versed in designing environments where "stars" take center stage, from numerous performing arts venues and stage sets to the backdrop for the 93rd Annual Academy Awards. But stars of the celestial kind—such as those depicted on the fabled ceiling of New York's Grand Central Terminal concourse—informed Rockwell Group's latest collaboration with Czech glass manufacturer Lasvit. Constellation is a collection of luminaires that recreates some of the sky's most recognizable stellar formations. Cassiopeia (above) and Ursa Minor—both available as wall sconces—are low-profile horizontal chandeliers with glass-domed points of light connected by handcrafted metalwork; Tri Stars is a wall sconce with three luminous orbs; Polaris is a floor lamp with a two-sided dome, its light source appearing to float within; and Gemini is a touch-control portable table lamp.

lasvit.com

Saber Mini

A linear suspension luminaire from PureEdge Lighting, Saber Mini is tension-hung, as opposed to being suspended from the ceiling, making it suitable for open and open-air spaces. Diffused by a small, round silicone lens, the system comes with all necessary parts—including watertight barrel connections, turnbuckles, and aircraft cable—and can be specified with tunable or fixed white color temperatures, as well as RGB and RGBW illumination.

pureedgelighting.com



AJ Oxford Lamp

Louis Poulsen is reissuing a classic Arne Jacobsen lamp that the Danish architect originally conceived in the 1960s, for his all-encompassing design of St. Catherine's College in Oxford, England. Today the AJ Oxford is available as a pin-mount or classic table lamp (right), with the classic offered in 11" and 16" heights, with or without the metal shade.

louispoulsen.com



Highline

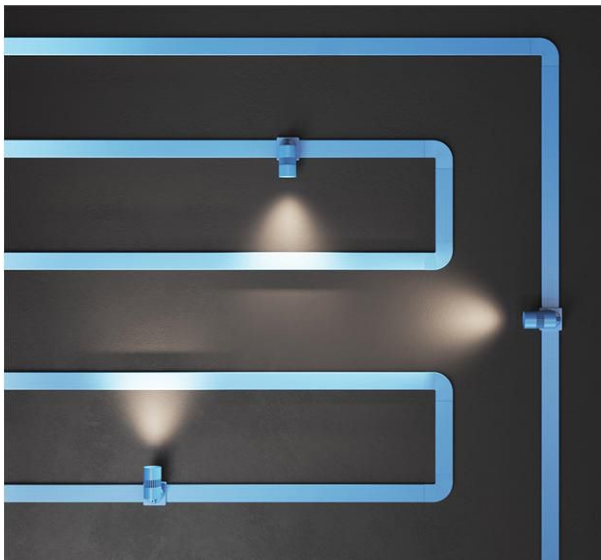
A collaboration between RBW and industrial designer Jonas Damon, this easily adaptable system is part linear suspension, part track lighting, and part decorative luminaire, depending on which components are specified. These include pendants (one style offering felt shades, above) and spotlights, all of which hang from a slim suspension beam with or without an integrated linear uplight.

rbw.com

Multiverse

A variation on the ubiquitous track system, Juniper Lighting's Multiverse features a flat, painted ribbon-style track that is an important part of the overall design. Employing a low-voltage power-distribution system, connector nodes, and pivot components, the track allows for flexible placement, rotating, and repositioning of up to 16 magnetic miniature spots on a single run. In addition to standard colors—matte pure white, satin black, satin aluminum, and satin brass—it's customizable in any desired color to meet a project's aesthetics.

juniper-design.com



Pivotaire

A plaster-in recessed linear system by Optique Lighting, Pivotaire comes in five configurations—straight, picture frame, zigzag, wrap (for corner and wall-to-ceiling transitions), and custom—that eliminate the need for expensive junction boxes, thanks to the system's Nano Linear Light Engine—powered endcaps.

optique-lighting.com

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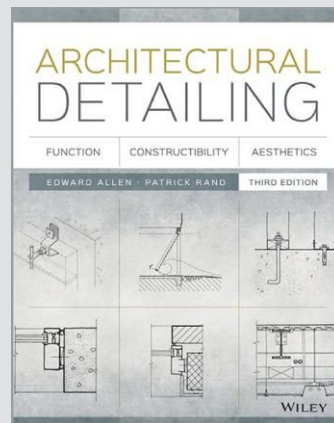
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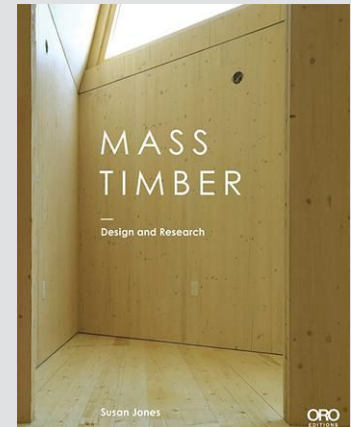
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The Americans with Disabilities Act (ADA), landmark civil rights legislation that increases access and opportunity for people with disabilities across community life, has been the law of the land for more than three decades. From ADA signage and designing ADA-compliant commercial showers and bathrooms to modular construction that embraces a new vision for accessibility, the built environment industry has gone beyond mere code adherence, working to find new and innovative means to approach accessible and universal design in creative ways. According to the CDC, one in four U.S. adults currently lives with a disability.

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Photo courtesy of Marvin



Big Glass, Big Returns

Sponsored by Marvin Windows and Doors

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Concrete Innovations

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Enhancing the Stone

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Courses may qualify for learning hours through most Canadian provincial architectural associations.

This Norwalk residence uses multi-slide doors and casement crank out windows to optimize the view as if the home is floating on Long Island Sound.

Photo courtesy of Marvin

Big Glass, Big Returns

How windows and doors can deliver on light, air, and views

Sponsored by Marvin Windows and Doors | By Erika Fredrickson

Big glass is a rising trend in single-family residential design. Architects looking for big-glass solutions have a myriad of window and door choices to achieve their aesthetic design goals. These solutions help achieve some of the most important elements in design—light, air, and views—which are key to the health and well-being of occupants. Too often, big glass solutions are seen as exclusive to high-end custom-built homes. However, today the concept of introducing light, air, and sweeping views to every interior space is attainable for many residential projects. Flexible, healthy, comfortable spaces that provide work-life balance are key goals in the post-pandemic life/work home environment. This course looks at some of the latest window and door designs that optimize glass and shows how a focus on

light, air, and views delivers big returns for both architect and occupant.

BIG GLASS ON THE RISE

The world of glass—and big glass, in particular—is expanding. The term "big glass" is used to describe the increasingly popular trend for glass panels and assemblies that are larger than traditional windows and doors in residential design. These panels and assemblies allow more natural light to enter a space, offer opportunity for better ventilation, and provide more unobstructed views of the surrounding environment. Big glass can range from assemblies of smaller windows that provide a big-glass effect to large-panel windows and doors that appear to take up entire walls.

Big glass is popular in architectural design because it creates transparency and

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Learning Objectives

After reading this article, you should be able to:

1. Discuss the trend of big glass in windows and doors that achieve architectural aesthetics.
2. List the emotional and health benefits operable windows and doors can provide when it comes to air, light, and biophilia.
3. Explain why glazing coatings are a critical element to improve energy efficiency and control solar heat gain.
4. Describe important performance attributes architects should consider when specifying for windows and doors.

To receive AIA credit, you are required to read the entire article and pass the quiz. Visit ce.architecturalrecord.com for the complete text and to take the quiz for free.

AIA COURSE #K2305P

openness, blurs the lines between indoor and outdoor spaces, and contributes to the health, safety, and well-being of occupants. But its popularity has soared even higher in recent years. In the past, more glass meant high energy bills, drafty interiors, outside noise, and aesthetic limitations.

Modern glazing systems are stronger, more energy-efficient, and offer better insulation than previous versions. With the use of advanced coatings, glazing, and insulation, architects can design buildings that are not only visually stunning but also environmentally friendly and more durable. In the long run, durability can translate into cost savings.

Big glass is popular because of the trend toward a more contemporary and modern aesthetic in home design which lends itself to clean lines and larger windows and doors. It is also popular because of the growing trend of sustainability and energy efficiency in architecture. Larger scale window and door assemblies can help reduce energy consumption by allowing more natural light to enter, reducing the need for artificial light. By leveraging quality window and door solutions with the appropriate U-Factor, Solar Heat Gain Coefficient, and Visible Light Transmittance rating, a building's overall energy consumption can be reduced, which is increasingly important as society becomes more focused on reducing our carbon footprint.

These days, new innovations, technologies, and standards lead to big-glass products and designs lead to window and door solutions that open up design options. Residential architects, builders and developers can now incorporate natural light, views, and air that meet their aesthetic vision. And, just as importantly, it allows them to find solutions for homeowners living in a post-pandemic world in which health, safety, well-being, and sustainability are of the utmost importance.

Responding to Human Needs

The pandemic and associated work restrictions created a dramatic surge of interest in home designs—for both new and renovation projects. For many people, the newfound reality of spending much more time at home instead of at work or out in public places motivated many to make changes in the places where they live. Some of those changes were



A Seattle-based 1910s-era colonial revival renovation features high-performance double-hung windows with a contemporary classic look that maximizes views but doesn't clash with the original style.

based on the need to have adults working from home, school children learning from home, or a mix of people simply performing more of their daily activities from home than was previously typical.

A renewed interest in home design and renovations designs and renovations happened relatively quickly once pandemic shutdowns began in the U.S. In a survey conducted by Houzz in June 2020, 71% of homeowners reported that they were thinking about or actively working on home improvement projects, with 60% of respondents citing the pandemic as their reason. Additionally, 47% of respondents said they were upgrading home offices or workspaces, and 42% were improving outdoor living spaces.

Google Trends also showed early data indicating that browser searches for home office ideas increased by 110% between March and May 2020. And, in a survey conducted by the American Institute of Architects in August 2020, 68% of architects reported that they had seen an increase in demand for home offices, and 58% had seen an increase in demand for exercise rooms.

Innovations in home design inspired by pandemic life have not decreased, even as many people have returned to offices. The America at Home study—a nationally representative survey of U.S. adults ages 25-74 with household incomes of \$50,000+ per year—shows an increase among Americans since the pandemic in the perception that a home needs to be designed to support health and well-being. The desire to customize homes in more innovative ways—and with that central goal in mind—has led to an increase in new products and technologies. And those technologies—along with performance standards and code requirements—help architects realize architectural visions in which they can provide clients better access to natural light, air, and views.

Continues at ce.architecturalrecord.com

Erika Fredrickson is a writer/editor focusing on technology, environment, and history. She frequently contributes to continuing education courses and publications through Confluence Communications. <http://www.confluencecc.com>

Photo courtesy of TLB Architecture, LLC

The Connecticut Department of Energy and Environmental Protection (DEEP) is poised to complete its new Western District Headquarters at Black Rock State Park in Watertown in fall 2023. The new building will utilize innovative concrete technologies and will be the first net-zero and LEED Platinum building built by the state.

Concrete Innovations

Reducing the carbon footprint with new technologies that meet future challenges

Sponsored by National Ready Mixed Concrete Association (NRMCA)

By Erika Fredrickson

Cutting-edge building projects must use durable materials that also help reduce carbon footprint. Concrete is the material of choice for the tallest buildings in the world and infrastructure designed to last centuries. This article explores how new products using pozzolans, calcined clay, biochar, and other innovations enhance a product that is nearly 5,000 years in development and provides another pathway for meeting future challenges in the built environment. The article includes the histories, compositions, and environmental impacts of these technologies and offers case studies to show how innovation is being put into action.

CONCRETE INNOVATIONS OVERVIEW

In recent years, there has been a push in architecture to design and construct buildings that have a lower carbon footprint. This trend is driven by the real need to address the global challenge of climate change and the recognition that buildings are significant contributors to greenhouse gas emissions. There are several strategies for constructing

buildings that help with mitigation. Designing energy efficient buildings that are resistant to natural disasters can significantly reduce life-cycle carbon emissions of a building. But another key strategy involves choosing sustainable building materials that have a lower carbon footprint. With new innovations and technologies, concrete is one material that is proving it has the potential to support these reduction goals.

In Connecticut, one state agency is embracing the challenge of climate change mitigation in full force—and aptly so. The Connecticut Department of Energy and Environmental Protection (DEEP) is tasked with mitigating negative energy and environmental impacts, and so it makes perfect sense that the agency should demonstrate its own mission. DEEP's new Western District Headquarters at Black Rock State Park, located in Watertown, is poised for completion in fall 2023, and will be the first net-zero and LEED Platinum building built by the state.

The building will be the result of several years of planning. It will allow the agency

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Learning Objectives

After reading this article, you should be able to:

1. Describe new technologies used in concrete manufacturing that utilize recycling of materials.
2. List ways in which these innovative concrete products can improve project performance.
3. Explain how to implement the latest concrete innovations in building and infrastructure projects.
4. Discuss the importance of incorporating new technologies to enhance resilience and sustainability in the built environment.

To receive AIA credit, you are required to read the entire article and pass the quiz. Visit ce.architecturalrecord.com for the complete text and to take the quiz for free.

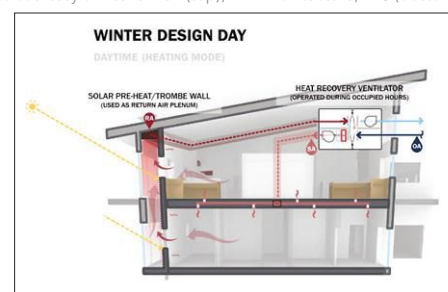
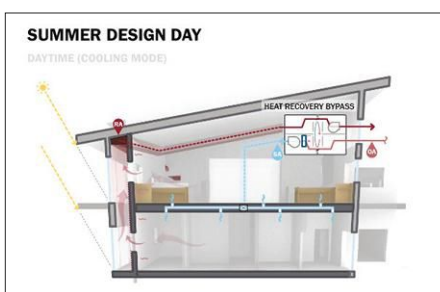
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to consolidate staff from nine outdated buildings that have been, until now, located in five separate towns. Combining them into one building will save energy and money, and it will increase efficiency. The new main building will be designed to achieve LEED Platinum certification and net-zero energy standards. A fully integrated approach to building systems and assemblies was required to maximize efficiency even more and minimize environmental impacts. It became clear to the building's designers that a thermal mass wall would optimize the site's solar orientation to reduce overall energy consumption. A Trombe wall was designed to provide passive heating during the winter months, passive cooling during the summer, and improved natural ventilation.

With the combination of earth sheltering, photovoltaics, a geothermal system, radiant polished concrete slabs, and a carefully designed building envelope, the building's energy consumption will be significantly lower than a comparably sized traditional building. It will result in a 30-40% reduction in energy consumption when compared to a building designed to current building and energy codes. The building will be finished with wood grown from Connecticut State Forests and milled at DEEP's sawmill.

The use of innovative concrete in this project is key to reducing the carbon footprint. Concrete is a durable building material that provides environmental benefits due to its longevity. But its environmental impact can be reduced with new technologies. Traditional cement used in concrete accounts for roughly 88% of its emissions, which means replacing traditional portland cement with alternative materials can have a big impact.

To reduce the carbon footprint of the DEEP facility, the plans call for 40% cement replacement in the structural concrete mixes with a high-quality ground glass pozzolan—a supplementary cementitious material (SCM) made from 100% recycled post-consumer glass. For this project, the pozzolan was evaluated to determine its effectiveness, availability, and carbon reduction potential. A variety of mixes were evaluated to make up the 40%. The ground-glass pozzolan product for this project is considered a safe,



The designers for the DEEP project designed a thermal mass wall utilizing concrete made with post-consumer ground-glass pozzolan cement to optimize the site's solar orientation all year round. The Trombe wall provides passive heating and cooling and improves natural ventilation.

sustainable, and high-performing pozzolan that dramatically reduces embodied CO₂ emissions in concrete.

This ground-glass pozzolan was manufactured with 100% post-consumer glass sourced within a 50-mile radius and manufactured in Connecticut, just 16 miles from the site. The local sourcing and manufacturing also help reduce embodied carbon by way of reducing transportation. This pozzolan contains no crystalline silica, heavy metals, or known carcinogens, making it a nontoxic material. Independent testing of the product shows it at 56 kg CO₂e in comparison to the average global warming potential (GWP) for portland cement of 1,040 kg CO₂e, resulting in 95% less impact.

The new headquarters aligns with the state's goals to mitigate the climate crisis with an effort by state government to lead by example and identify opportunities for

savings and ways to make government operations more sustainable.

The concrete sector is continually seeking new sources of SCMs to help make durable, sustainable, and cutting-edge designs, such as the DEEP headquarters. As a result, the industry is exploring new innovations and old technologies made new again. In this article, we will dig deeper into the history, composition, and benefits of SCMs such as ground glass pozzolans, natural pozzolans, and limestone calcined clay cement.

Continues at ce.architecturalrecord.com

Erika Fredrickson is a writer/editor focusing on technology, environment, and history. She frequently contributes to continuing education courses and publications through Confluence Communications. <http://www.confluencecc.com>



Build with Strength, a coalition of the National Ready Mixed Concrete Association, educates the building and design communities and policymakers on the benefits of ready mixed concrete, and encourages its use as the building material of choice. No other material can replicate concrete's advantages in terms of strength, durability, safety and ease of use.

Photo courtesy of StonePly



Enhancing the Stone

Stone veneer panels on aluminum honeycomb combine the beauty of natural stone with the design freedom, strength, and lightness of metal panels

Sponsored by StonePly | By Robyn M. Feller

For thousands of years, stone has been a much-lauded ingredient in building design and construction—and with good reason. As a natural material, stone has many appealing qualities, including its unmatched durability, versatility, and unlimited beauty. Design choices know no bounds with stone's wide-ranging variety of colors, types, patterns, and textures. Used over the centuries for everything from mighty ancient Greek and Roman structures, Egyptian pyramids, and English burial chambers to graceful churches and temples around the globe, stone has stood the test of time as a premier material choice.

Stone veneer panels on aluminum honeycomb provide an innovative alternative to traditional stone cladding.

Over the past hundred years or so, though, the use of stone in construction has waned. Traditional stone masonry is rarely used in modern buildings; its main drawbacks have been its unwieldy weight, high labor costs, and quarry, cut, and transport challenges in getting stone from point A to point B. Today's architects, however, looking for innovative ways to incorporate stone's many benefits into their current projects, no longer need to dismiss stone as an option.

Continues at ce.architecturalrecord.com

Robyn M. Feller is a freelance writer and editor specializing in the architecture, design, and construction industry. www.linkedin.com/in/robynfeller

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Learning Objectives

After reading this article, you should be able to:

1. List the benefits of using natural thin stone veneer on aluminum honeycomb panels in a variety of applications.
2. Compare the design freedom, aesthetics, cost, service life, safety, and durability provided by stone veneer on aluminum honeycomb panels against traditional stone cladding.
3. List the varieties of stone available in thin natural stone veneer on aluminum honeycomb panels.
4. Discuss how the characteristics of stone veneer on aluminum honeycomb panels can lead to achieving a project's green building goals.

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DATES & Events

Upcoming Exhibitions

Herzog & de Meuron

London

July 14–October 15, 2023

Founded in Basel over 40 years ago by Jacques Herzog and Pierre de Meuron, the now global firm is renowned for projects such as the Tate Modern, Beijing's Bird's Nest National Stadium, and 1111 Lincoln Road in Miami Beach, Florida. The Royal Academy of London presents an exhibition, curated in close collaboration with the architects, that explores the firm's past, present, and future works through digital experiences, models, material samples, and prototypes. For more, see royalacademy.org.uk.

Ongoing Exhibitions

Shared Space—Collective Practices

Ghent, New York

Through June 11, 2023

An exhibition on view at Art Omi, an arts center with a 120-acre sculpture and architecture park, presents the work of four international collaborative design practices: WIP, FUNdaMENTAL Design Build Initiative, Colloqate Design, and ASSEMBLE. Featured projects

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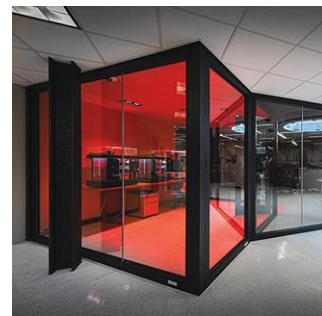
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Product Application

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- The University of Michigan-Flint, W. R. Murchie Science Building – Flint, MI

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Performance Data

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emphasize a community-centered approach to shaping public space and address larger social concerns, including gentrification, privatization, urban neglect, and social inequity. See artomi.org.

Beauty in Enormous Bleakness: The Design Legacy of the Interned Generation of Japanese Americans

St. Louis

Through July 9, 2023

An exhibit at the Washington University St. Louis's Thomas Gallery explores the lives, work, and impact of Japanese-American architects who survived the World War II U.S. internment camps, concentrating on four architects who studied at the school following their release: Gyo Obata, Richard Henmi, George Matsumoto, and Fred Toguchi. See library.wustl.edu.

Seeking Zohn

Los Angeles

Through July 23, 2023

Architect and engineer Alejandro Zohn (1930–2000), a Jewish émigré whose family fled Nazi-occupied Austria for Mexico during World War II, is little known outside his adopted country, but built widely in Guadalajara from the 1950s through the 1990s. The MAK Center for Art and Architecture presents the first Los Angeles exhibition of Zohn's work, at the Schindler House in West Hollywood, featuring commissioned photography and video by artists Adam Wiseman, Lake Verea, Onus Luque, Sonia Madrigal, and Zara Pfeifer, alongside select items from the architect's archives. For more information, see makcenter.org.

Norman Foster

Paris

Through August 7, 2023

The Centre Pompidou presents the largest retrospective so far dedicated to the prolific career of Pritzker laureate Norman Foster. The exhibition includes drawings, workbooks, and prototypes of almost 100 projects from the past six decades, including the Carré d'Art in Nîmes, France (1993), the Hong Kong International Airport (1998), and the Apple Park in Cupertino, California (2017). See centrepompidou.fr/en.

Yasmeen Lari: Architecture for the Future

Vienna

Through August 16, 2023

Austria's national architecture museum, the Architekturmuseum Wien, presents the first

monographic exhibition on Yasmeen Lari, Pakistan's first woman architect. Born in 1941, she established her own office in 1961, beginning her career as a pioneer of Brutalism and designing Modernist projects for the country's middle class before founding the humanitarian group Heritage Foundation of Pakistan in 1980. In 2005, Lari initiated a zero-carbon self-build movement for climate refugees and the landless, and has built tens of thousands of Pakistani homes using traditional technologies and low-cost, low-carbon materials. See azw.at/en.

Events

BQE 2053

New York

May 20, 2023

A free one-day symposium hosted by the Institute for Public Architecture will discuss reuse opportunities for the Brooklyn Queens Expressway, which has been falling into disrepair due to decades of deferred maintenance.

Four diverse panels will convene at the Harbor School on Governors Island to discuss highway removal, alternative transportation systems, community land trusts, and community visions for the future. See the-ipa.org

Competitions

Architecture at Zero 2023

Deadline: June 15, 2023

The competition, presented in part by AIA California, is seeking design proposals for an agricultural center in Allensworth, the first town in the state to be founded, financed, and governed by African-Americans. The competition brief invites students and professionals to design proposals that recognize and advance the site's aspiration to become a destination for sustainable agriculture and Black history. See architectureatzero.com.

E-mail information two months in advance to schulmanp@bnpmedia.com.



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Atop an arrow-shaped community center designed by Adjaye Associates, an expansive perforated steel canopy by indigenous Australian artist Daniel Boyd filters refracted light onto a public plaza in Sydney. Inspired by notions of shelter and placemaking during both the country's colonial period and the present day, the new building and plaza offer passersby a reprieve from the city's hustle and bustle and a connection to the area's origins. The timber-and-steel community center, whose form references the pitched-roofed houses of the early settlers, includes a café, a vaulted gallery, and an indoor/outdoor viewing platform. Suspended from a series of trusses and supported by a steel column, the 9,800-square-foot rectangular overhang is composed of 72 panels, punctured with mirror-lined circular apertures that create a cosmic mosaic on the pavement below. "It provides a space of contemplation and diversity for a multiplicity of experiences and narratives currently extending back 60,000 years," says the artist, who is of Kudjira/Gangalu descent. "Acknowledging that we can never fully comprehend our past or future is the first step in reconciling differences of perception."

Ilana Herzog

Architectural
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