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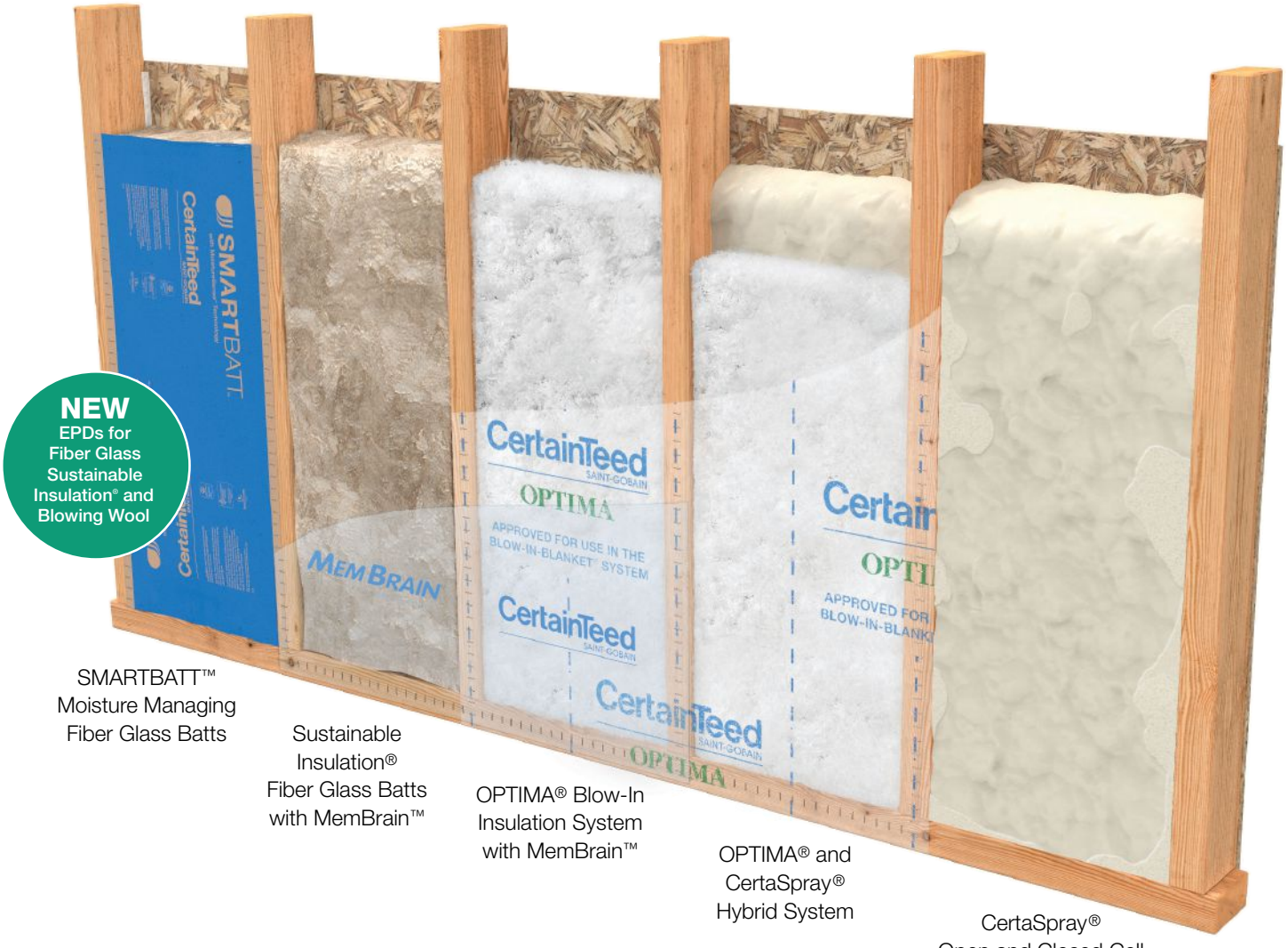

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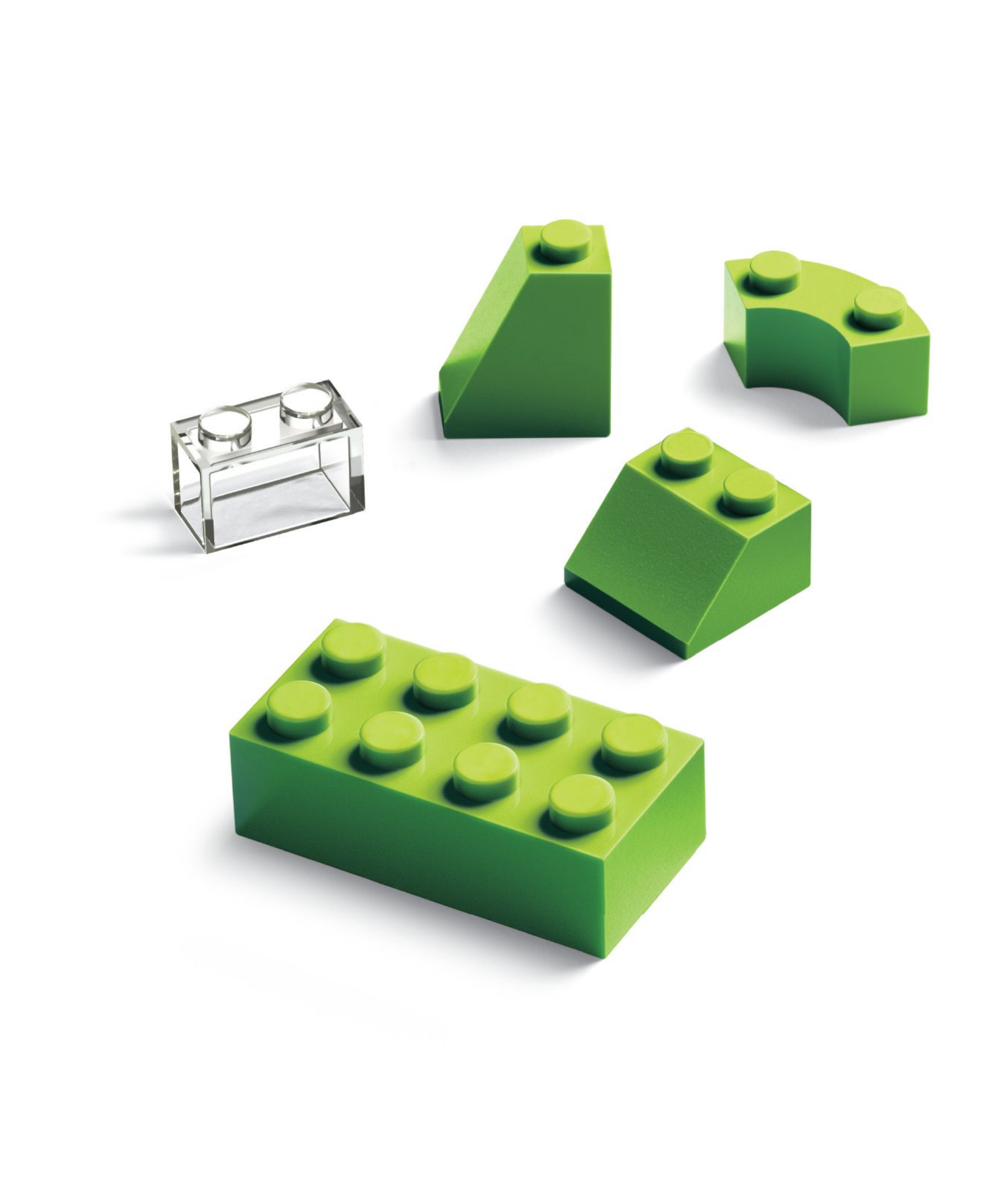

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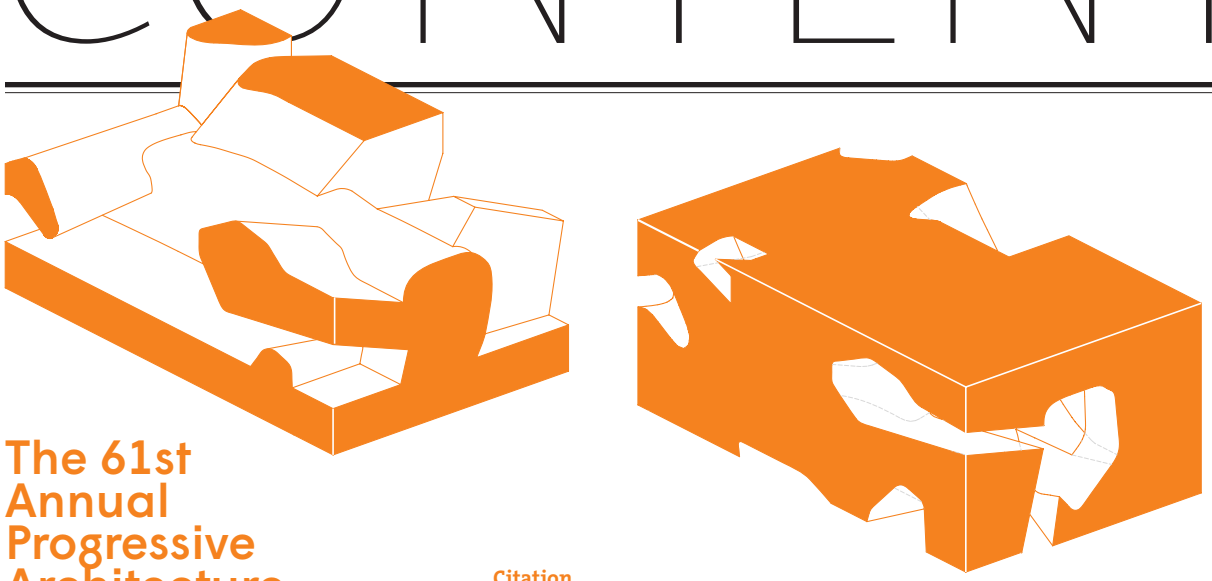

The 61st Annual Progressive Architecture Awards

78

This year's jury—made up of Lise Anne Couture, Nataly Gattegno, Sasa Radulovic, and Marcelo Spina—gives awards to 10 unbuilt projects whose progressive designs focus on a holistic approach with an eye toward practical realization.

First Award

—**Tianjin EcoCity Ecology and Planning Museums**
Steven Holl Architects

Award

—**Kaohsiung Port Terminal**
RUR Architecture

—**National Music Centre of Canada**
Allied Works Architecture

Citation

—**Liverpool Department Store - Insurgentes**
Rojkind Arquitectos

—**Faculty of Architecture, Building & Planning, University of Melbourne**
John Wardle Architects and NADAAA in collaboration

—**The Broad**
Diller Scofidio + Renfro in collaboration with Gensler

—**Soccer Centre at St. Michel Environmental Complex**
Saucier + Perrotte Architectes/ Hughes Condon Marler Architects

Honorable Mention

—**TBA 21**
Xefirotarch/Hernan Diaz Alonso

—**Fayetteville 2030: Food City Scenario**
University of Arkansas Community Design Center

—**Albuquerque Rail Yards Master Plan**
Eric Owen Moss Architects

105

TREE HOUSE

London-based 6a Architects has augmented a pair of 1830s weavers' cottages with a curvaceous and accessible garden addition for architecture critic Rowan Moore and family.

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ON THE COVER

Tianjin EcoCity Ecology and Planning Museums, designed by Steven Holl Architects. Image by MIR.

TOP: STEVEN HOLL ARCHITECTS; BOTTOM: JONAH DEHLIN

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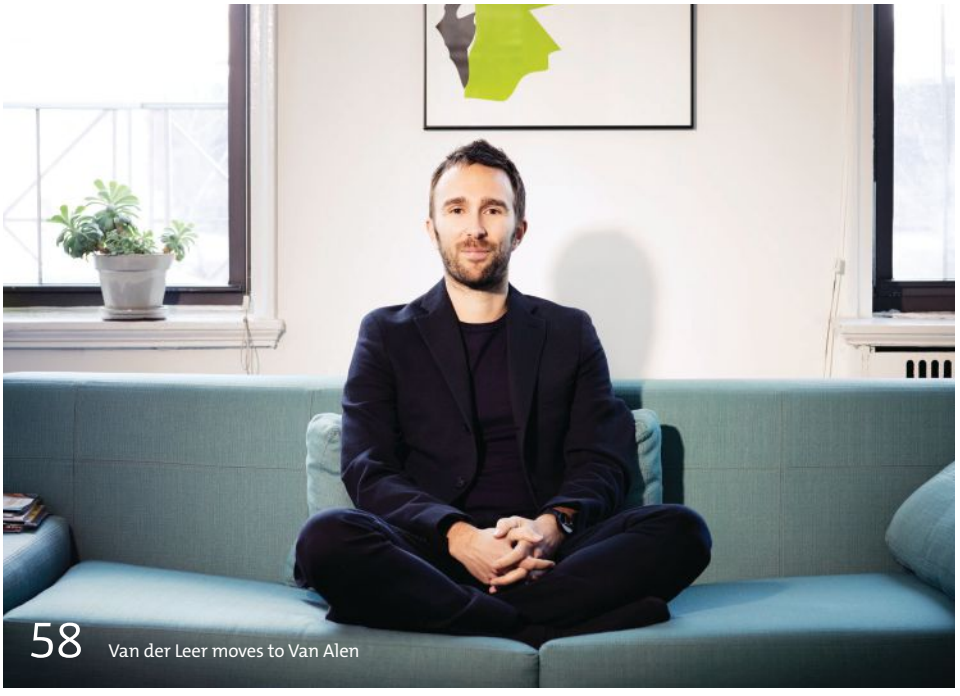
50 A toast to the X-Acto knife



58 Van der Leer moves to Van Alen

FRONT

CENTER

BACK

TOP: COURTESY X-ACTO; BOTTOM: NOAH KALINA

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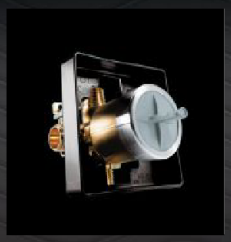

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STAR TRACK

From Las Vegas's star-studded cast of gaming resorts to New York landmark **Yonkers Raceway**, casinos are becoming synonymous with innovative design. This historic 1890s racetrack bet its future on a 21st-century overhaul of its **Empire City Casino** by New York-based **Studio V Architecture**. With a philosophy of exploring architectural expression based on contemporary technology, the award-winning firm capped its redesign with a space-age *porte-cochère* of steel latticework clad with ETFE Teflon-coated film. The innovative entrance stunningly reinvents the casino's image and marks the first U.S. application of this cutting-edge material—showing a building need not be conventional to be a good bet.

Architect: Studio V Architecture

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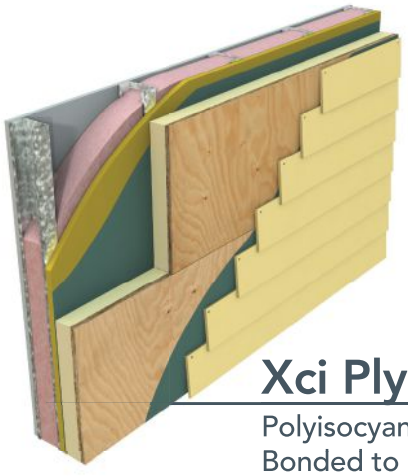

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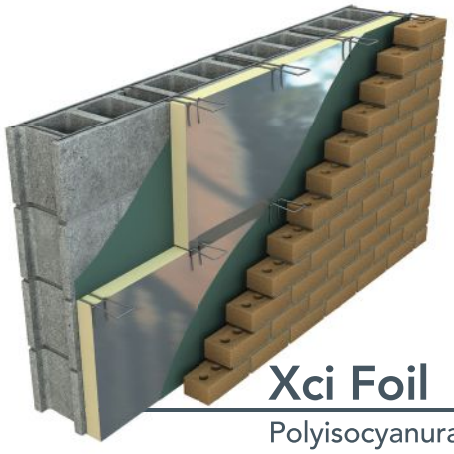

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IF THERE WAS A DOMINANT THEME IN DILLER AND SCOFIDIO'S EARLIER WORK, IT WAS SURVEILLANCE.

SECURITY THEATER

EDWARD SNOWDEN WAS A TODDLER WHEN ELIZABETH DILLER AND RICARDO SCOFIDIO BEGAN TO EXPLORE THE INVERSE RELATIONSHIP BETWEEN SECURITY AND PRIVACY. NOW THEIR WORK SEEMS PRESCIENT.

I FELL IN LOVE with Elizabeth Diller, Ricardo Scofidio, AIA, and Charles Renfro, AIA, in the mid-1990s, when Diller and Scofidio lived, and all three of them worked, in a wondrously ramshackle studio above the *Village Voice* building in New York's Cooper Square. (Renfro's name wasn't on the letterhead yet; at the time, he was the office factotum, the standout among a handful of smart employees and interns.) The whole setup—the exposed steampipes, the thoughtful, soft-spoken couple, their young, hip staff—perfectly matched my mental picture of bohemia. Then there was the work itself, which simply blew my mind.

Most emerging practices establish a reputation through house additions, apartment renovations, and store makeovers. But Diller and Scofidio took a decidedly different path. For the first decade or so of their collaboration, they produced conceptual projects, stage sets, and public art installations, all of which were pointedly polemical.

If there was a dominant theme in Diller and Scofidio's early work, it was surveillance. Consider, for instance, the 1989 Para-Site installation at the Museum of Modern Art (MoMA) in New York, in which monitors displayed feeds from cameras in other locations throughout the building: bald pates and big hair spinning though the revolving front door, waistlines of every imaginable diameter descending an escalator. It's all voyeuristic fun until you realize you can be watched, too—and then it gets creepy, fast.

Diller and Scofidio's concerns about the intrusiveness of closed-circuit television might seem quaint by today's standards. But who could have imagined, back then, that the federal government would be monitoring trillions of private emails and cellphone conversations each year?

The threats are frighteningly real, but all the surveillance in the world can't guarantee our safety. Domestic terrorism—Newtown, Conn., the Boston Marathon—is growing tragically commonplace. Last October, in a speech at the annual meeting of the International Association of Chiefs of Police, U.S. Attorney General Eric Holder observed that mass shootings in the United States have tripled in frequency since 2009. On the very same day, a 12-year-old brought a Ruger 9mm semi-automatic pistol to his middle school near Reno, Nev., shot and killed a teacher, wounded two other students, and then killed himself.

Well before September 11, Diller and Scofidio exposed the devil in any exchange of privacy and other rights for a sense of protection. Such deals come with no guarantees, and are often ineffectual anyway. In January, *Politico Magazine* published an eye-popping essay by a former TSA agent confirming the limited utility of those onerous airport checkpoint procedures. The pat-downs, body scans, bans on liquids and gels, and removal of shoes and belts amount to security theater—a placebo ritual enacted to make us feel secure, even though it does not, in fact, make us safer. But it does sound like the premise for another one of Diller and Scofidio's installations.

Diller Scofidio + Renfro has come under another kind of scrutiny recently, due to the firm's involvement in the latest expansion of MoMA (see page 22), which controversially will entail the demolition of the former American Folk Art Museum building designed by Tod Williams, FAIA, and Billie Tsien, AIA. It's a damn shame to lose such a fine piece of architecture, and all the more so because it is uncertain whether a Diller Scofidio + Renfro–designed expansion will ever get built or, if it is, whether it will be built to the architects' specifications. MoMA is a notoriously tricky client.

But if Diller Scofidio + Renfro does hold on to the job, I hope the firm will channel the spirit of self-awareness and criticality that made Para-Site so powerful. Because, unlike a transatlantic flight, a trip to a contemporary art museum should be a little unsettling.

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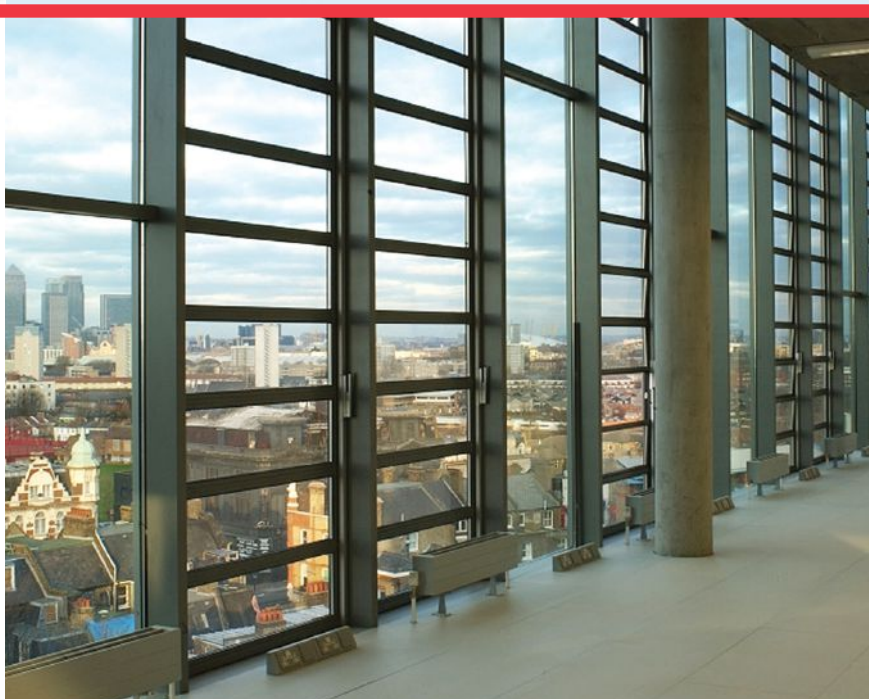

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Ward is the author of the memoir, *See You in a Hundred Years*, which chronicles his family's move from New York City to Virginia's Shenandoah Valley to master the technology of his great-grandparents' generation. (The publisher who changed the title for the Chinese edition to *We're Not Crazy: Let's Go Live in 1900!* wasn't far off the mark.)

Ward is hard at work on his next book: the true story of an American who invents a flying machine to help a tribe of Amazonian Indians—the same indigenous group who killed his father four decades earlier. Ward lives in Fairfax, Va., with his wife and two children.

Read Ward's articles on Sanjay Puri Architects' quest to merge ceilings and walls on page 48 and Mateo Arquitectura's floating concrete ramp on page 52.

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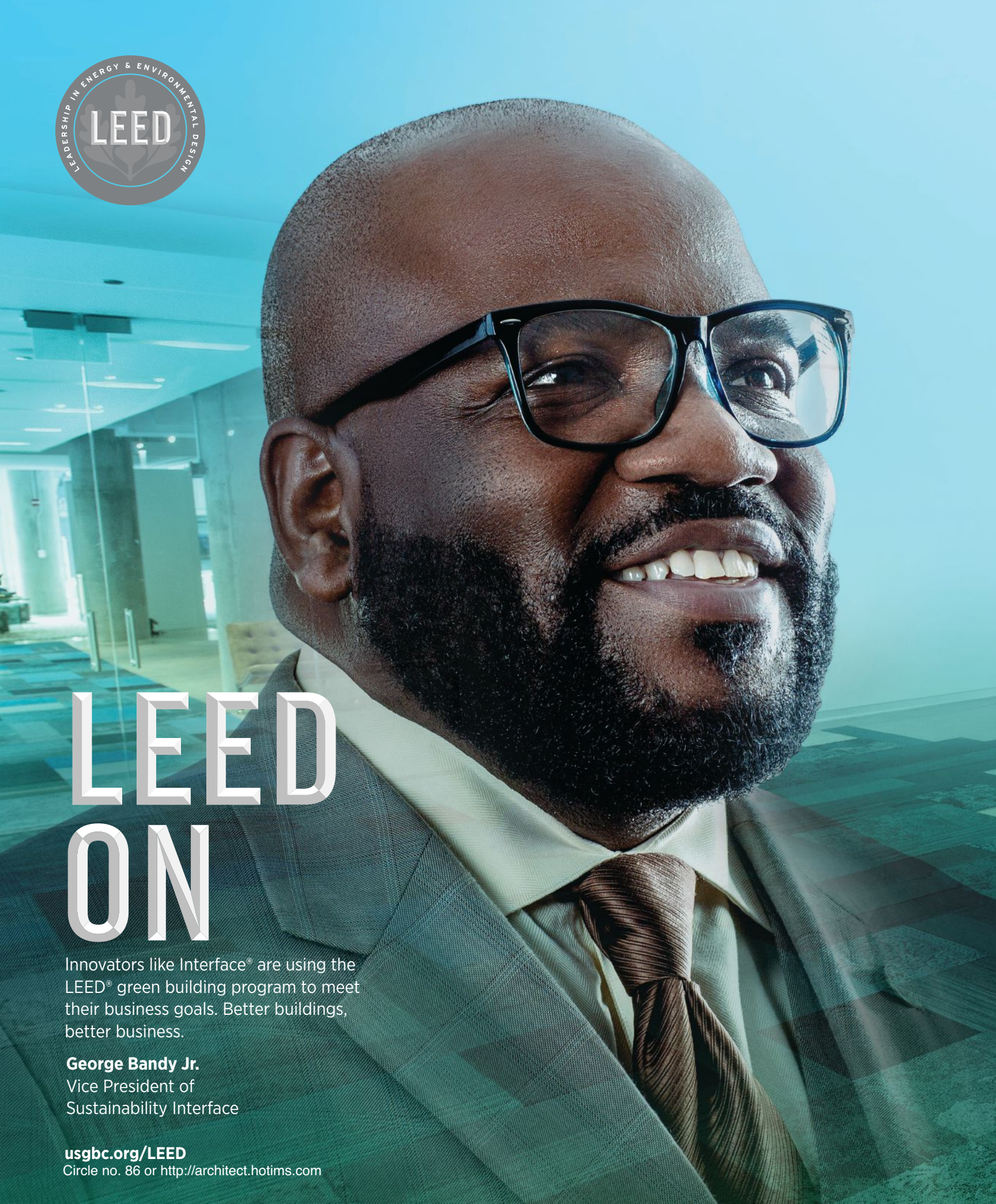

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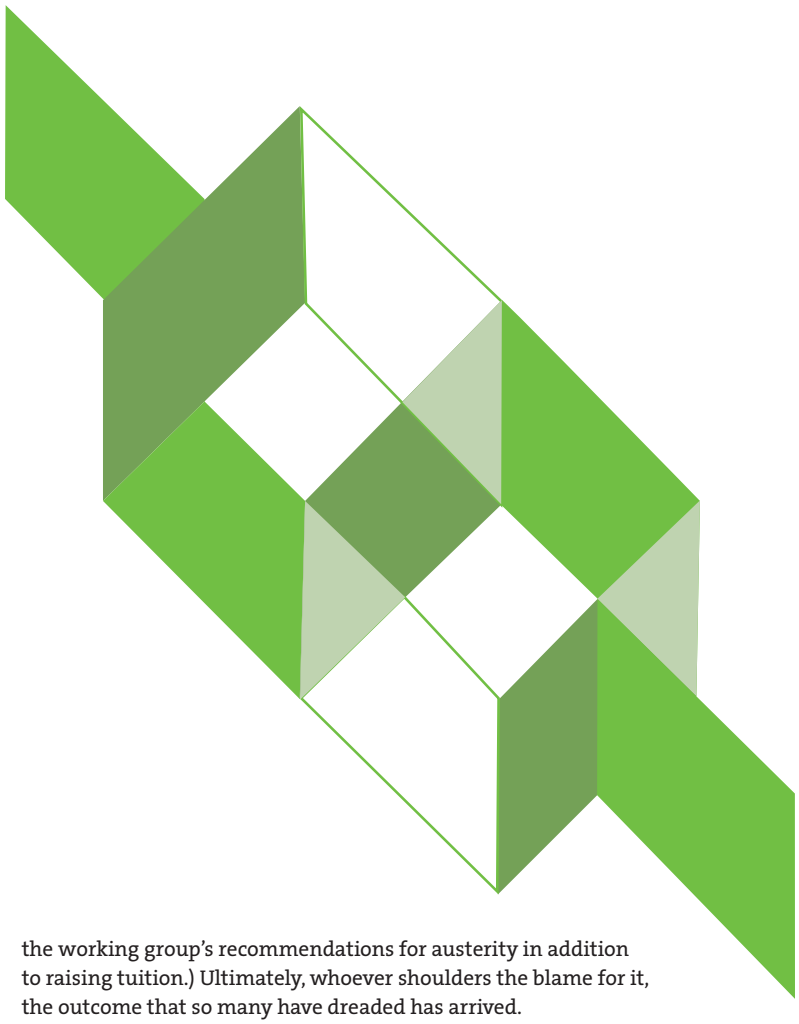


STATE OF THE UNION

COOPER UNION'S BOARD VOTED LAST MONTH TO BEGIN CHARGING TUITION FOR UNDERGRADUATE STUDENTS, ENDING THE SCHOOL'S HISTORIC LEGACY.

IN JANUARY, the board of trustees at the Cooper Union for the Advancement of Science and Art voted to begin charging tuition for undergraduate students with the next freshman class. The decision to quit offering a free education for all, a founding principle for the New York school over the past century and a half, promises to utterly transform the institution.

There were lots of arguments over what should have been done to prevent this moment. Perhaps 41 Cooper Square, the $166 million academic building designed by Los Angeles–based Morphosis, should have been done differently, more cheaply, or even not at all. Maybe the board should have decided against hiring a president whose annual salary amounts to the tuition of more than 60 students—although the financial problems certainly preceded his arrival. Attempting to look forward, a working group of faculty, alumni, staff, and trustees offered alternative ways to address the school's budget problems.

But the board concluded that "tuition remains the only realistic source of new revenue in the near future." (The trustees nevertheless declared that it would also implement several of the working group's recommendations for austerity in addition to raising tuition.) Ultimately, whoever shoulders the blame for it, the outcome that so many have dreaded has arrived.

The school's leaders pledged that admissions will continue to be merit-based, and tuition-paying students will subsidize scholarships for needier students. Yet this is the same financial model practiced across American universities that is saddling students with unprecedented debt. As Cooper Union transitions, some not-insubstantial sum must be spent on administrators to capture that tuition. And even if Cooper Union is able to navigate the tuition process, it will only have landed itself in the same boat as traditional centers of higher education—a cold comfort.

Future students will adapt. Unfortunately, that may mean the school loses the next Elizabeth Diller or Shigeru Ban to sticker shock, as Philip Nobel noted in ARCHITECT last April. No longer a peerless, need-blind alternative to the flailing university model, Cooper Union has elected instead to join its ranks. A *Stanford Daily* op-ed puts it best: "This country doesn't need fewer Cooper Unions. It needs more of them." SARA JOHNSON

EXPAND AND DELIVER

THE MUSEUM OF MODERN ART BUILDING THAT DILLER SCOFIDIO + RENFRO SET OUT TO SAVE WASN'T THE ONE DESIGNED BY TOD WILLIAMS AND BILLIE TSIEN.

NEITHER THOUSANDS OF PETITION SIGNATURES nor dozens of angry architects could dissuade the Museum of Modern Art (MoMA) from deciding to raze the short-lived American Folk Art Museum building, designed by New York's Tod Williams Billie Tsien Architects and opened just 13 years ago. Diller Scofidio + Renfro dashed any hopes for saving the beloved but awkward building (hopes that the firm itself stoked last May) when it revealed its plans for a new MoMA expansion last month.

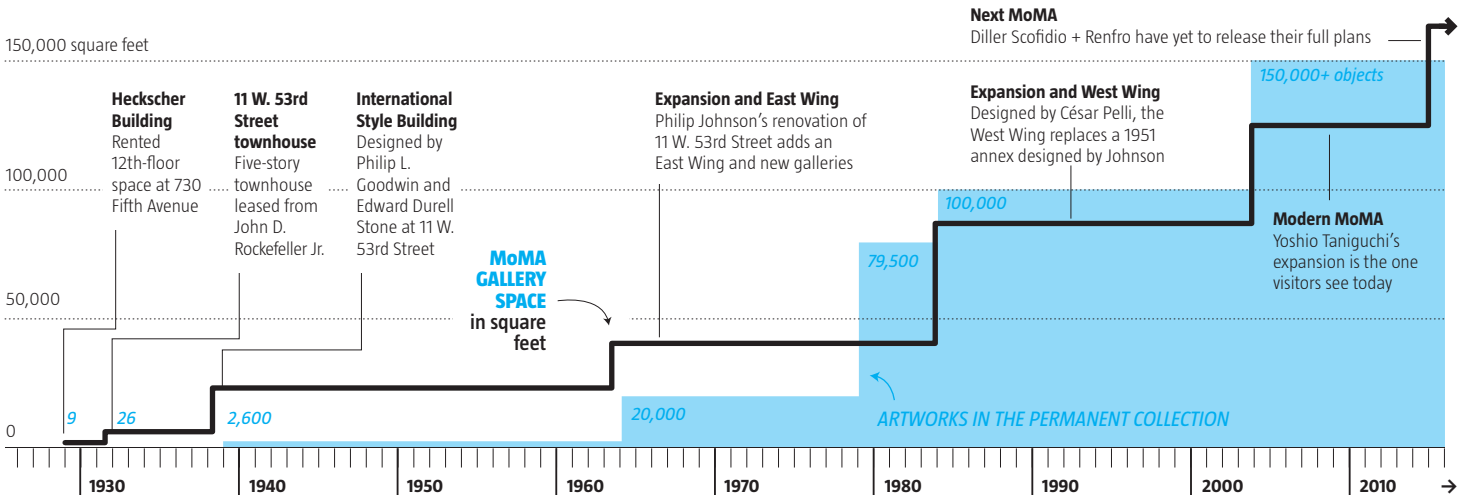
It is certainly within MoMA's ability to preserve the Folk Art building. After all, tentative expansion plans dreamed up before the museum acquired the townhouse-style gem in 2011 accounted for it staying. Earlier MoMA expansions and additions have radically altered the original 1939 building at 11 West 53rd Street designed by Philip Goodwin and Edward Durell Stone, but there it remains.

Preserving the Tod Williams Billie Tsien Architects–designed building is now out of reach. The early renderings released by New York's Diller Scofidio + Renfro show the firm grappling with the last expansion—designed by Japanese architect Yoshio Taniguchi, with Kohn Pedersen Fox in 2004—not with Williams and Tsien's building.

To that end, Diller Scofidio + Renfro's scheme replaces the Folk Art Museum building with two new programming spaces: the so-called Art Bay, a glass-cube garage with a liftable glass façade that opens to the street, as well as a Gray Box for performances. These spaces would redress the mostly linear, hierarchical galleries of Taniguchi's addition. Other changes include a new entrance planned in part to improve visitor circulation, which is a perennial problem for the museum.

Whether opening up the museum for 21st-century art while fixing traffic flow is now the standing question—even if it is not the one for which Diller Scofidio + Renfro will be judged. KRISTON CAPPS

GROWTH AT MoMA, TWO WAYS



NICOLAS RAPP

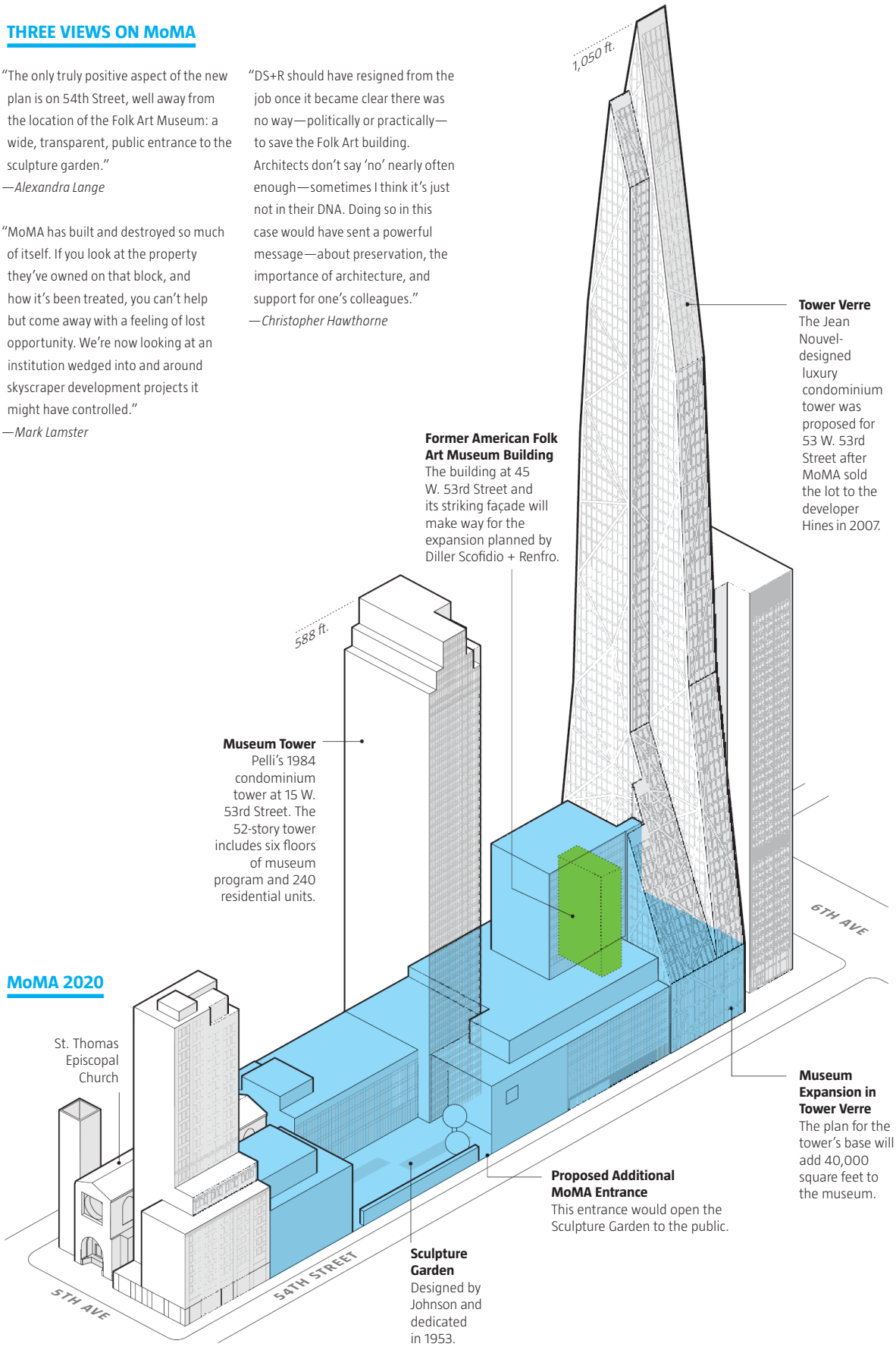
THREE VIEWS ON MoMA

"The only truly positive aspect of the new plan is on 54th Street, well away from the location of the Folk Art Museum: a wide, transparent, public entrance to the sculpture garden."
—*Alexandra Lange*

"MoMA has built and destroyed so much of itself. If you look at the property they've owned on that block, and how it's been treated, you can't help but come away with a feeling of lost opportunity. We're now looking at an institution wedged into and around skyscraper development projects it might have controlled."
—*Mark Lamster*

"DS+R should have resigned from the job once it became clear there was no way—politically or practically—to save the Folk Art building. Architects don't say 'no' nearly often enough—sometimes I think it's just not in their DNA. Doing so in this case would have sent a powerful message—about preservation, the importance of architecture, and support for one's colleagues."
—*Christopher Hawthorne*

MoMA 2020

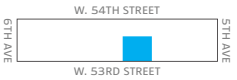


DRAWING IS SCHEMATIC. SOURCES: THE MUSEUM OF MODERN ART; SLCE ARCHITECTS; NYC DEPARTMENT OF CITY PLANNING; JEAN NOUVEL ATELIERS.

MoMA'S MOVES

1929
MoMA opens in rented space on the corner of Fifth Avenue and 57th Street.

1932
MoMA moves to its 53rd Street base.



1939
The museum expands with the Goodwin/Stone building.

1951
An annex designed by Philip Johnson opens at 21 West 53 Street.

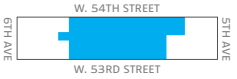
1953
The Sculpture Garden opens.

1964
Johnson gives MoMA an East Wing for its 35th birthday.

1984
The 1951 annex is razed in 1979, making way for the West Wing expansion by Pelli.

1996
Acquisitions on 53rd and 54th Streets, including the Dorset Hotel, facilitate future growth.

2002
The museum closes at 11 W. 53rd Street and moves into a temporary space in Queens: MoMA P.S.1.



2004
The new MoMA opens.

2011
MoMA buys the former American Folk Art Museum building.

2019
Tentative date for the next expansion to open.

Q+A: STEPHEN CHUNG

"THERE'S NO NETWORK EXEC WHO'S GOING TO STICK HIS HEAD OUT FOR SOMETHING THAT HASN'T BEEN DONE BEFORE. THIS SHOW IS COMPLETELY COMING OUT OF LEFT FIELD."
—STEPHEN CHUNG

Chung taping *Cool Spaces!* on site at AT&T Stadium in Arlington, Texas, with longtime Dallas Cowboys owner Jerry Jones. Designed by HKS, the stadium has the largest column-free interior in the world.

THE FIRST EPISODE of *Cool Spaces!* will take viewers to the stadium of the Dallas Cowboys, the Barclays Center in New York, and the Kauffman Center for the Performing Arts in Kansas City, Mo. Stephen Chung, AIA—the host who is bringing the show to PBS in April—will talk to the architects about the work that went into making these buildings great. But *Cool Spaces!* goes further, bringing viewers inside to meet the users and clients. Here, Chung tells ARCHITECT what you'll see on the only television show about architecture out there.

What are the things you hope to accomplish with this show?
I always talk about it in terms of bridging the gap. Explaining to a layperson, to a non-architecture person, what architecture is, what it's about, why it's important. We try to stress problem solving. Someone is saying, "We need this." It goes beyond the form, the material.

Have you run into any particular challenges filming buildings? Do you have to film buildings and architects in a different way than you'd film food and chefs?
The first director I was working with said something to me: "Buildings aren't stars; people are stars." He didn't mean me. He meant that people relate to other people—not to the building. We have to introduce the characters. That's the owner, the architect, the client, the end-user. We need to see who these people are and understand what it is about these buildings that brings them together.

Who are some of the architects you've enjoyed filming so far?
I like a lot of the architects on the show. Tod Williams and Billie Tsien, for example. You know, when the camera's not on, we're going over the sketches and drawings, looking at all the starts and stops. It's interesting going into their offices and spending time with them. It felt like I was getting a master's degree. Steven Holl told me how he kind of broke the rules for a design competition—when you go to a building, you can't feel all of that.

This has shown you all different sides of architecture. What about television? Has your opinion of TV changed since you started?
I didn't really watch much television except for sports. But I did have to watch a lot to understand what this could be or should be. People say, "There's no architecture show on TV, this is a great idea, this will be something different." But that's really bad. There's no network exec who's going to stick his head out for something that hasn't been done before. Why would he do that? This [show] is completely coming out of left field. [So] it took a long time to find examples to demonstrate and explain, but *Bizarre Foods America* was a precedent. They go to a new city to experience the food and understand the culture. You feel more like you're on a tour than at a lecture.

Do you know what buildings you want to tackle next?
We're in post-production mode right now, and we have to finish three episodes by the end of February. They want us to make four more episodes for fall or late winter. I tentatively put a list down. There's campus buildings, that would be one theme. We're going to talk to Thom Mayne. Weiss/Manfredi and their nanotechnology center at Penn. There's also sacred spaces. There's the Lakewood Cemetery Garden Mausoleum by HGA in Minnesota. Learning and discovery—we have a little bit of time to firm up themes.

So what's Jerry Jones like?
Fantastic guy. He spent a lot of time with me off camera, too, just telling me his story and also giving me advice. Be bold, he told me. You have it or you don't. But if you do, be bold. I'll be kinda rooting for the Cowboys in the future. K.C

DAN FRANK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SHIFTING GEARS

THE SKYCYCLE PROPOSED BY FOSTER + PARTNERS WOULD ELEVATE LONDON CYCLISTS ABOVE THE CITY—AND LIFT THE CITY ABOVE ITS PEERS WORLDWIDE.

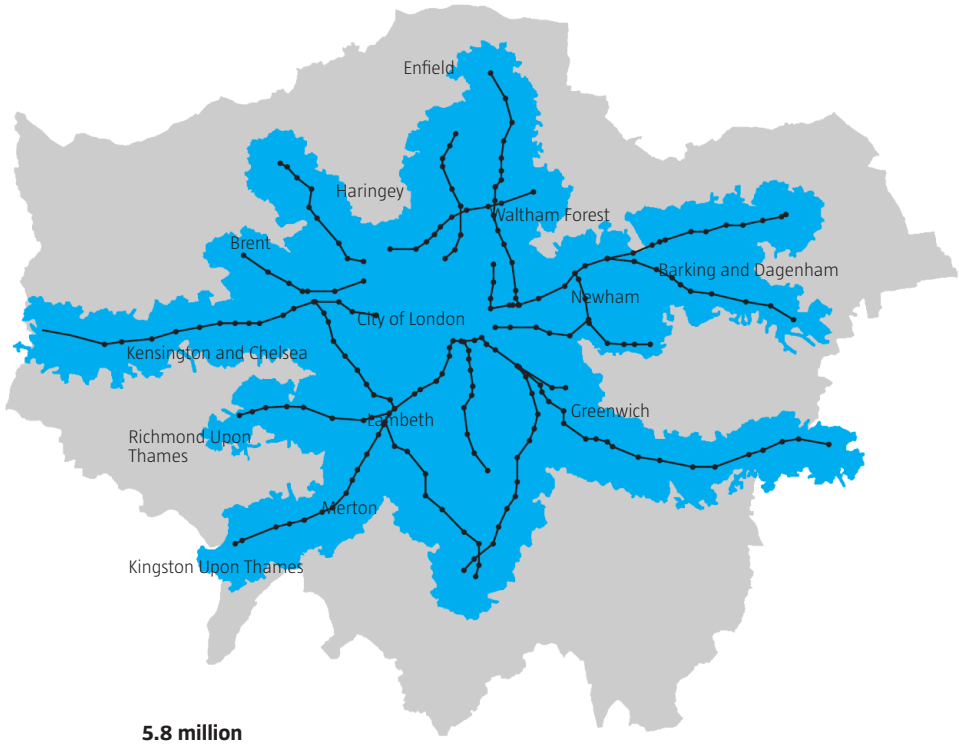
HAS LONDON REACHED PEAK CAR? The frequently asked question usually reflects a pessimistic (if realistic) assessment of London traffic. One new solution—proposed by Foster + Partners, Exterior Architecture, and Space Syntax—may prompt Londoners to ask whether peak car can come soon enough.

The SkyCycle, a proposed network of elevated bicycle paths, may constitute the world's first major infrastructure project for bicycle commuters. London authorities estimate that half of the 6 million people who reside within the network's catchment area live and work within 10 minutes of a proposed SkyCycle entrance. The network has been designed accordingly: It will accommodate up to 12,000 cyclists per hour, per route.

The SkyCycle's backers are planning it as a low-cost, low-impact development that exploits existing industrial corridors. Many of the proposed SkyCycle tracks follow existing railway lines; since these were largely designed for steam engines, they avoid steep gradients already. Foster + Partners describes wide-scale deckbuilding along largely undeveloped rail corridors as an opportunity for commercial regeneration in industrial areas.

An elevated network solves another problem: London's rapidly rising mortality rates for cyclists. While the costs for building the SkyCycle are up there—a 4-mile trial stretch might cost $363 million to build—the cost of doing nothing may be too steep already. K.C.

Catchment Area of the Proposed Network



5.8 million
Catchment population

3.6 million
Employed within catchment

127 miles
Total network length

200+
SkyCycle entrances

10-minute ride from a SkyCycle entrance

SkyCycle entrance

SkyCycle path

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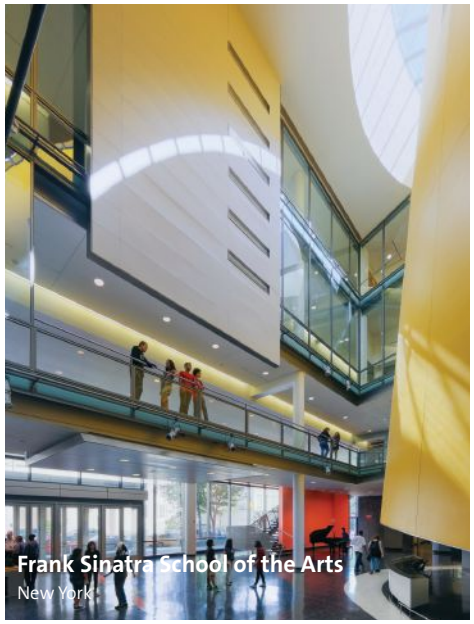
Natural History Museum of Utah
Salt Lake City

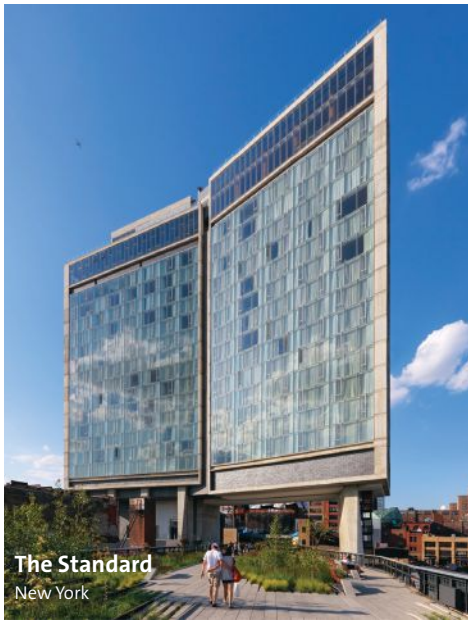
PORTFOLIO

ENNEAD

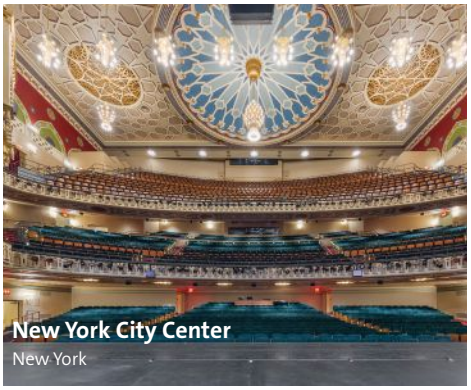
ENNEAD ARCHITECTS, formerly Polshek Partnership, derives its name from an Ancient Greek word meaning "a collection of nine"—although it may be time for another change now that the firm has expanded to 11 partners. Name changes notwithstanding, the firm continues to produce outstanding architecture. New York's the Standard (2009), a hotel that straddles the High Line Park, is perhaps Ennead Architects' most visible recent project, but the firm has also received accolades for its Natural History Museum of Utah and a renovation of New York City Center (2011). The Frank Sinatra School of the Arts (2009) demonstrates Ennead's work in education performance spaces. See many more images of Ennead projects at architectmagazine.com. **DEANE MADSEN**



Frank Sinatra School of the Arts
New York



The Standard
New York



New York City Center
New York

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More courses at architectmagazine.com

A IS FOR ARCHITECTURE

Federico Babina, the Barcelona architect behind various whimsical architecture memes, debuted 26 figures in the "ARCHIBET" series just last month. "Each letter is a small surrealist architecture that becomes part of an imaginary city," he says. **S.J.**

TOP: JEFF GOLDBERG; BOTTOM: FEDERICO BABINA

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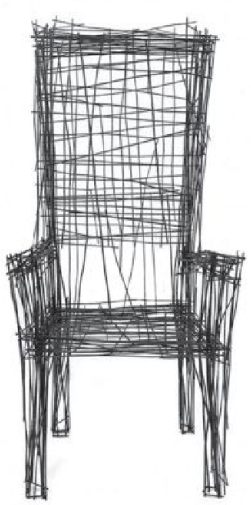


FROM SKETCHPAD TO YOUR PAD

At first glance, the image above looks like a sketchy line drawing of a chair. But this is no sketch. It's an actual chair—one that is sized to the human body and capable of supporting a person's weight. Created by South Korean designer Jinil Park, the chair is one of several pieces from her aptly named "Drawing Series" furniture collection.

December 2013

Architecture Billings Index

48.5

↓ 1.3pts

Institutional

44.8

↓ 2.9 pts

Mixed Practice

51.0

↓ 0.7 pts

Commercial

47.1

↓ 1.5 pts

Multifamily Residential

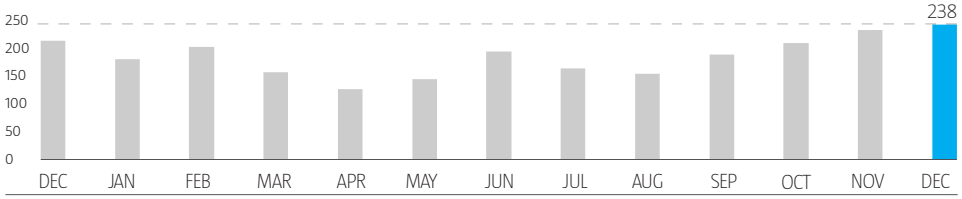
53.8

↓ 1.4 pts

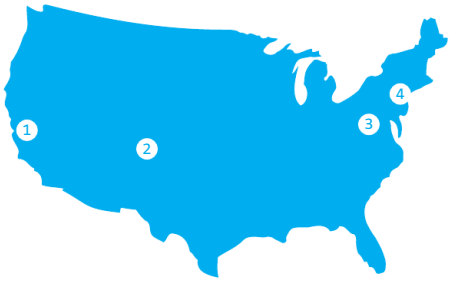
UNREST IN PORTLANDIA

Some 32 years after its completion, it's hard to remember the impact that a boxy building dressed up vaguely like an Egyptian temple had when it first brightened the cityscape of 1980s Portland, Ore. It is no exaggeration to say that Michael Graves's Portland Public Services Building (as it was originally named) changed architecture as much as Frank Gehry's Guggenheim Museum Bilbao did 15 years later. Now this immensely significant building (it made the National Register of Historic Places in 2011) is regarded by city officials as a white elephant due to its cheap construction. At press time, the official grumbling over the building has culminated in talk of razing it altogether.

ADP NATIONAL JOB GROWTH IN THOUSANDS



U.S. Museums Under Construction



1. The Broad: Los Angeles
Diller Scofidio + Renfro
120,000 total square feet

2. New Aspen Art Museum: Aspen, Colo.
Shigeru Ban Architects
33,000 total square feet

3. National Museum of African American History and Culture: Washington, D.C.
Adjaye Associates, Freelon Group, and Davis Brody Bond
322,600 total square feet

4. Whitney Museum of American Art: New York City
Renzo Piano Building Workshop
200,000 total square feet

December Jobs Report

New construction jobs reported by the U.S. Department of Labor's Bureau of Labor Statistics

6,200 Residential Construction

— 8,800 Heavy and Civil Engineering

— 14,200 Nonresidential Construction

+ 5,300 Architectural and Engineering Services

= **-11,500** Total Construction Jobs Lost

WHAT WE'RE 3D PRINTING NOW: VALENTINE'S DAY

HEARTS

Researchers at the Cardiovascular Innovation Institute at the University of Louisville in Kentucky say the world's first 3D-printed human heart is less than a decade away from its inaugural rhythmic beats. Made from the regenerative cells of its recipient, each heart will be printed as a single unit using a printer custom designed by the research team. Estimated printing time: three hours.

SWEETS

Following the launch of its ChefJet series of 3D printers for edibles at the Consumer Electronics Show in January, 3D Systems, a leading maker of additive manufacturing tech, announced a partnership with the Hershey Company to "explore and develop" better ways to 3D print food—including chocolate and other confections. Draw up plans for your choco-river now.

... BABIES?

A Sunnyvale, Calif.–based startup called 3D Babies is attempting to cash in on the boundless joy of expectant parents with printed models of their forthcoming offspring made using ultrasound and sonogram images. Prices for models offered in three skin-tone colors range from $200 to $800, depending on the size—life, half, or mini.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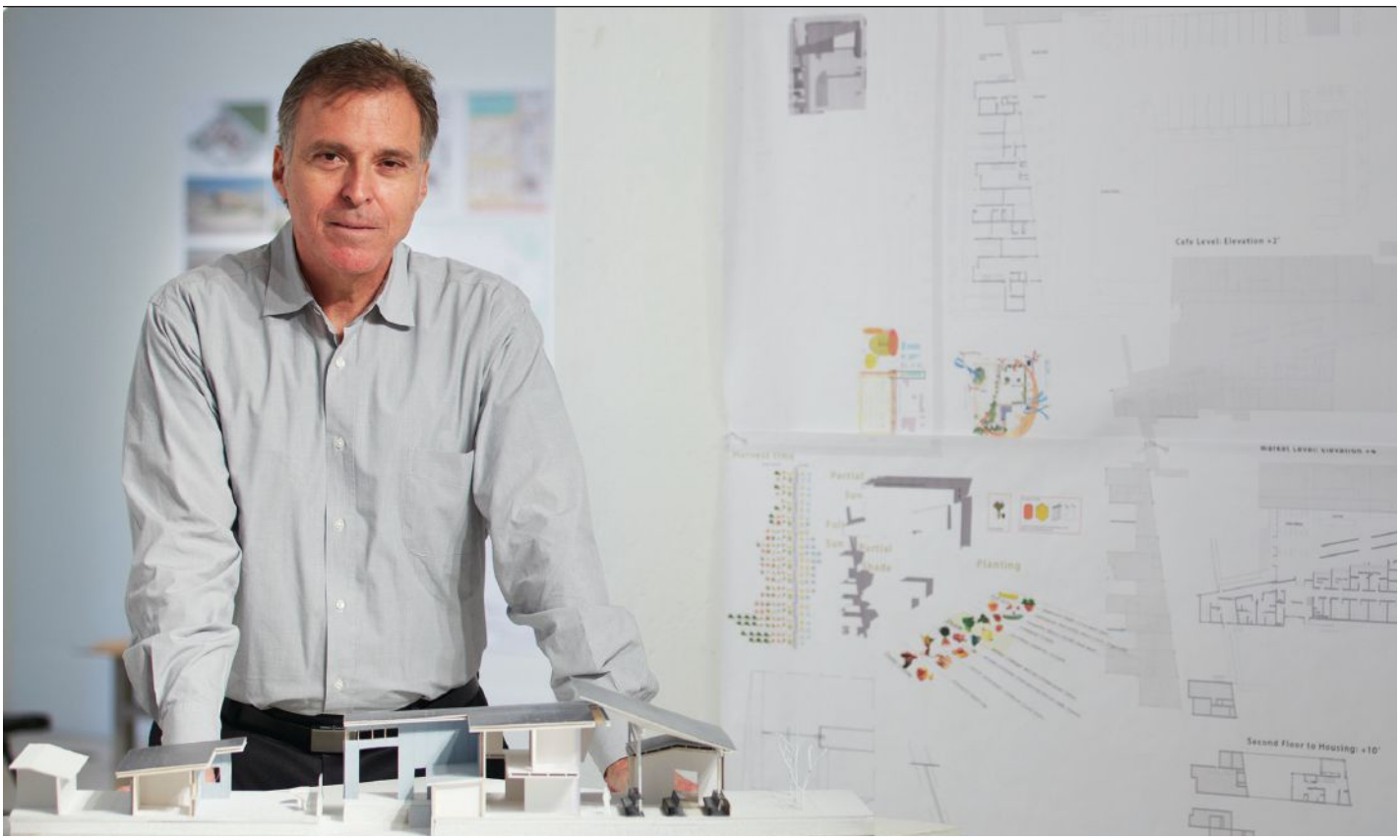

PHOTO: DANA HOFF

AIAVOICES

DESIGNING TO STAY | THE LOCAL SIDE OF "GLOCAL"

Anthony Abbate, AIA, is an architect based in Fort Lauderdale, Fla., and the associate provost at Florida Atlantic University. Over the last 10 years, he has been central in encouraging research into how climate change affects subtropical cities, where roughly half the world's population lives. Abbate has branded the problem that subtropical cities face not as a design issue (although design can mitigate some of the environmental devastation that rising water levels and temperatures incur), but as a professional issue for architects. Architects must, Abbate argues, collaborate more effectively with policymakers, biologists, planners, and engineers if some of the largest population centers in the world are going to survive the 21st century.

IN ALL OF THE DISCUSSION ABOUT CLIMATE CHANGE, I THINK we need to keep in mind that subtropical cities are not just about climate. They have to do with existing networks and communities as well as migrations in and out of larger regions, like the Sunbelt in the United States, which is a relatively new frontier that has rapidly urbanized. And that's the starting point for a conversation about sea-level rise.

To me, all of this has to do with developing a design perspective. Look beyond Vitruvius and there are very deep wells of local knowledge in cities and towns about how to build. It's easy to talk in abstractions about changes in our environment that have a global impact, but the real work has to do with interpreting localized knowledge. I think the term "glocal" is clever, but I believe we need to emphasize the local half of that.

What I'm trying to do with my colleagues in Australia is to think laterally. Sure, there are a lot of successful knowledge-sharing partnerships longitudinally—say, between a North American school and a South American school, or a New York–based firm and a São Paulo–based architect. But we have to develop partnerships along the subtropical band of cities where a lot of people live and work.

My personal optimism aside, the reality is: Unless the decision-makers and leaders in our society convert their thoughts into actions in the next five years—policy, code legislation, and so forth—we will need to seriously design for retreat from the coasts. To a certain extent, we can predict what will happen if no action is taken, but it's harder to see how things can improve with piecemeal, scattered, and uneven investment and change. We no longer have the luxury of time, and so a concerted, focused, multilateral investment is needed. And I believe that architects should—as designers and as informed citizens—lead this discussion, think creatively and realistically, and be at the table with policymakers.

—As told to William Richards AIA

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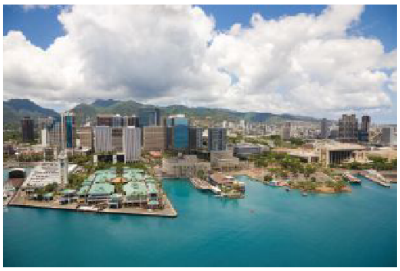
AIANOW

ACROSS THE INSTITUTE

Compiled by William Richards



4 **Detroit Days**
March 27

3 **Aloha, Architecture**
April 1–30

TED
Ideas worth spreading

1 **What TED Said**
March 17–21

2 **Nervous Laughter**
April 17–18

IMAGE 4: © STEVE HALL, HEDRICH BLESSING.

1 What TED Said. In 1984, the Philadelphia architect Richard Saul Wurman, FAIA, launched TED—short for technology, entertainment, and design—as a one-off event intended to be a multidisciplinary forum for "ideas worth spreading." Since then, it's become an annual series of conferences that serves as populist bellwethers of innovation and storytelling for the creative class, which has included architects from the beginning of TED's three-decade run. To commemorate 30 years, TED organizers have decamped from their usual Long Beach, Calif., venue to Vancouver, B.C., and have planned a special track for TED2014 on "30 Years of Architecture" for the March 17–21 event.

↗ Learn more at *ted.com*.

2. Nervous Laughter. Two planets walk into a bar. "How are you?" asks one. "Not so well. I've got the Homo sapiens," says the other. "Oh, well," the first planet replies, "don't worry—that won't last long." There are other groan-worthy sustainability jokes out there, but the point of them all is to raise awareness of intractable environmental problems. One of the ways you can make a difference is by attending the fifth annual Sustainable Structures Symposium at the Portland State University School of Architecture in Portland, Ore., on April 17 to 18, which will go beyond building envelopes and daylighting to assess structural systems and materials in high-performance buildings.

↗ Learn more at *sustainablestructure.org*.

3 Aloha, Architecture. Sure, AIA chapters around the country will celebrate National Architecture Week (April 6–12) with seven days of fun. But AIA Honolulu has claimed the entirety of April for Architecture Month—a series of public-facing events, including film nights, walking tours, and a celebration honoring newly minted architects. There's even an architecture firm crawl around Honolulu (Solo Cup not provided).

↗ Learn more at *aiahonolulu.org*.

4 Detroit Days. This is a big year for architecture in Detroit. The University of Detroit Mercy School of Architecture celebrates 50 years and the Detroit Collaborative Design Center celebrates 20 years in a one-two punch that includes special events, lectures, exhibitions, and community service projects. Among the festivities, John Ronan, AIA, founding principal of Chicago-based John Ronan Architects, will talk about his firm's recent work during a March 27 lecture, which will include a discussion of the Poetry Foundation headquarters in Chicago (completed 2011), which garnered several national prizes, including the 2012 AIA Chicago Distinguished Building Award.

↗ Learn more at *udmercy.edu* or *jrarch.com*.

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AIAFUTURE

ABOUT-FACE | CREATING A TYPE FOR ARCHITYPE

"WHAT'S IN A NAME?" JULIET FAMOUSLY asked. Pose that question to the graphic designers at the design firm Pentagram and the answer would be: a lot.

With the help of Pentagram, the American Institute of Architects commissioned a new typeface called Architype for the 2014 AIA National Convention in Chicago (June 26-28). Architype is the AIA's first proprietary typeface in its 156-year history, and it will be a key element in the promotion and branding of this year's meeting, "Design with Purpose."

The decision to design an original typeface for the convention came about when Pentagram was hired to help streamline communications strategies for the Institute. In considering the breadth of written material coming out of the AIA, the designers had a thought: What about creating a typeface unique to the organization for its signature conference?

"We felt simply doing a logo would seem like a feeble thing for all of the communication that AIA does," says Michael Bierut, a partner at Pentagram, which has offices in New York, San Francisco, London, Berlin, and Austin, Texas. "We wanted it to be more fundamental."

Bierut points to the efficacy of a recognizable typeface in solidifying an organization's identity. Think, for instance, of the immediate recognition that comes with the looping swirl of the Coca-Cola font. "Just as a person's voice is associated with his or her personality, the typographic language becomes a part of an organization's 'voice,'" he says. "It's a fundamental building block, and if you do it right and implement it consistently, you can get immediate proprietary acknowledgement simply by writing 'hello.'"

Designing a Hybrid

Until recently, designing an original typeface had been a laborious process—a complex industrial endeavor requiring tedious tweaks in both the form of individual letters and in the way those letters related to each other, punctuation marks, and the construction of special symbols. Today, technological advances have made type design a swifter task, but they do not alleviate the great skill and deliberation required for creating successful letterforms.

Great care went into crafting Architype. First, the designers considered whether the font would be serif—including those little lines at the ends of letters—or sans serif, which is a cleaner approach. "Sans serif has a neutrality that has the broadest range of interpretations and inclusivity," Bierut says. "It seems appropriate to architecture in the 21st century."

Pentagram designer Hamish Smyth, who worked with Bierut, says the team then chose to craft Architype from a hybrid of two existing fonts. The first was the classic 19th-century typeface Akzidenz-Grotesk, the mother of all sans-serif fonts that we know today, including the popular Helvetica currently used by the AIA. The second, Trade Gothic, was designed in 1948 and reads as very "classic American," Smyth says.

"We took parts of each of those, and that formed the basis of the characters," Smyth says.

Next, Pentagram engaged a graphic designer specializing in typefaces to finesse the letter and number characters, and ensure that they all worked together as a whole.

The result is a font that is clean and contemporary—one that won't compete with images of architecture—but that also has distinguishing characteristics unique to the AIA. Take the letter "I" for instance.

"What's interesting about the 'I,' which sits in the middle of the AIA monogram, is that it suggests a Doric column," Bierut says. "We thought, 'What if we made a typeface that was sans serif, but it had a Doric-column style with the letter "I"?'"

That special design element carries through in other horizontal elements, such as the letter "E," and it makes Architype a rare breed font: one that's conventional except for a few moments of distinctive stylization.

Once the print version of the font was completed in November 2013, the team went to work on the digital iteration. Here they worried about pixels and "hinting," which is the way that different operating systems—think Microsoft versus Apple—render fonts. "There is manual work that you have to do to 'hint' the fonts and help make them appear on screen as we intend them to appear in print," Smyth says.

Architype will make its premiere in the marketing for AIA's annual convention in Chicago, where the font will serve as the foundation for the convention's logo and branding. Look for it in the convention hall and on collateral materials. —*Elizabeth Evitts Dickinson* AIA

Brand Architecture

Your epidermis is showing.

"IF YOU NAME YOUR FIRM AFTER A MOUNTAIN, YOU HAVE TO CLIMB that mountain," says Snøhetta's Craig Dykers, AIA. True to these words, the members of Dykers' Oslo- and New York–based architecture, landscape, and design firm make an annual pilgrimage up the slopes of their namesake, a stone's throw from the Arctic Circle.

Companies spend a lot of money and time developing their brand identity—and often turn to design firms for assistance. But how do design firms go through the process of defining themselves? Sure, there's some alchemy in finding just the right expression, but, at the end of the day, it's about a design process.

"You have to have attitude," says D.J. Stout, a graphic designer and partner at Pentagram. "You need to be confident about who you are and present that to the world. It is problem-solving."

And, as Stout explains, solving the problem begins with three simple questions: Who are you? What do you do? How do you say it?

Last month, the firm PageSoutherlandPage announced that moving forward the company would be known simply as Page. With offices in Texas (Austin, Dallas, and Houston), Denver, Washington D.C., as well as international affiliate offices, the transition is representative of an incoming new generation of leadership and the evolution of the 116-year-old firm into a robust organization where all employees will soon share in ownership.

"We are redefining the culture of the firm," explains Page principal Larry Speck, FAIA. "We are making a much flatter organization with the goal of encouraging an entrepreneurial spirit among our people and increasing collaboration among our various offices."

With a company like Page, however, charting a new path forward means balancing a substantial legacy with a firm-wide desire to rethink nearly every element of the business.

"Page's longevity can be perceived as either venerable and vital or just plain old," says Larry Paul Fuller, an Austin, Texas–based consultant who has collaborated with Herman Dyal, FAIA, on the firm's rebranding assignment. At the center of that project is what Page is calling "design that makes lives better." The firm's new graphic identity, consisting of its name followed by a slash—Page/—speaks to the forward-thinking design the firm is known for bringing to complex projects.

Page began this process just over a year ago, and will roll out a new website and an integrated communications plan to help get the word out about its new name. An essential key to the evolution of the brand, however, is the representation of how the firm is working today and has been for a while. It is about the people who are engaged with Page.

"The importance of creating an integrated brand for our firm is to enable us to do better work," says Speck. "It keeps us focused on our values and our priorities, and it enables us to clearly communicate to clients, potential clients, and others what we stand for in architecture and what we have to offer."

As many architecture firms are embracing horizontal structures with collaborative workflows and multidisciplinary practices, their identities are evolving away from emphasizing the founders or a few partners to recognizing a collective whole founded on a particular design ethos. It's not uncommon for architecture firms to practice

ILLUSTRATION: VIKTOR KOEN

architecture, planning, landscape architecture, and interior design under one roof. Some have branched out into fabrication and construction, while others have pursued product design, branding services, or art installations.

The brand itself, then, has to do more heavy lifting by communicating all of these multidisciplinary elements in a clear, concise, and consistent manner. It's a fraught process for a sole practitioner, small firm, or even medium-sized firm. But what happens when you have offices in 15 countries?

Gensler dropped "architects" from its name in the 1990s, after moving away from M. Arthur Gensler & Associates in the 1980s. Now, just shy of its 50th anniversary, the firm has grown from a small office on Clay Street in San Francisco to 45 offices across 20 practice areas. The more the firm grew, the greater the need to find a single expression of its identity, so, just before the end of the last century, it became simply Gensler.

"We were beginning to really focus on a much bigger and broader offering that was not typical in an architecture firm," says Gensler's co-CEO Diane Hoskins, FAIA. Gensler was already providing multidisciplinary services as part of their portfolio, and the in-house team developed the larger strategy. "We wanted to define ourselves as being different from the rest and to really say to the world that we are a new paradigm of a global design firm."

The firm's previous logo had been Helvetica in light green. They went for a strong modern typeface in red to deliver the new message in the redesigned logo. "It was a much bolder statement and reflected greater confidence about design in a noticeable way," Hoskins says.

Gensler's name and the new graphic presence helped broadcast its identity externally, but its size and multiple locations required internal cohesion as well. "Our brand is evident from every touchpoint with our organization," says Hoskins. "The innovative spaces that we work in are an important and very tangible way of demonstrating and experiencing the brand for our clients."

With a focus on what Hoskins calls design thinking and thought leadership, Gensler seeks to engage its clients and communities in a larger discussion, in part by occupying ground-floor spaces with a street presence in urban areas. Its offices also emphasize collaboration in their layouts, and Gensler's identity is underscored through an internal communications strategy that includes two magazines, *Dialogue* and *Forecast Design*, both of which are substantial publications that detail current trends in the various disciplines they represent.

All of this is essential to cultivating the firm's culture. Not every firm can reasonably carry two internal publications, but Gensler is an exception. And any firm can take advantage of social media to reinforce its brand, both internally and externally.

"We encourage the principals and associates at Page to tweet and write blog posts," Speck says. This is also an approach shared by Pentagram: "Social media is inexpensive and, when focused, it is very efficient," Stout says.

Gregg Pasquarelli, AIA, founding principal of SHoP Architects and SHoP Construction, says that Instagram has proven to be an excellent tool for the New York–based firm to share with the world and, in turn, its own people.

"I can take a picture of a design detail, somewhere I am visiting, or something that I am thinking about, and post it immediately," says Pasquarelli. "I love it."

SHoP's growth since its founding in 1996 has been well-documented in design media, beginning with construction services and lately into a sustainable, integrated building technologies company called HeliOptix. Less obvious is how SHoP managed that growth and maintained an internal sense of coherence.

For Pasquarelli, the identity of the firm is largely about a culture that principals strive to create within their team—which found its earliest expression entirely by accident when the founders inadvertently punched a hole between the "H" and "P" initials of Holden (for founding principal Kimberly Holden, AIA) and Pasquarelli while discussing the name of their new firm.

"We knew immediately that the 'o' would represent all of the people who would work with us in the future," says Pasquarelli. To that end, while SHoP has grown to be 150 people between design and construction, their brand identity keeps its internal identity and outward appearance tied together.—*Catherine Gavin* AIA

AIAPERSPECTIVE

SILVER, GOLD, OR PLATINUM?

PHOTO: WILLIAM STEWART

WHAT DOES EXTRA LEGROOM HAVE TO DO WITH ARCHITECTURE? More than you might think. Late last year, *New York Times* op-ed columnist Frank Bruni wrote about a family trip he was planning to the Six Flags amusement park in the Los Angeles area. He described the swelling cascade of extra options the traveler faces: Want the first crack at stowing luggage in the overhead bins, an aisle seat, or more legroom? For a small fee, those things are yours.

What bothered Bruni was not the endless nickel and diming; rather, he saw the marketing of all of these perks as further evidence we are fragmenting into a society of haves and have-nots. He acknowledged the choices we make of clothes, cars, and our homes have always served an additional function as badges of our status. But, increasingly, we seem to be finding more ways to advertise our clout and distinguish ourselves from our less-privileged neighbors.

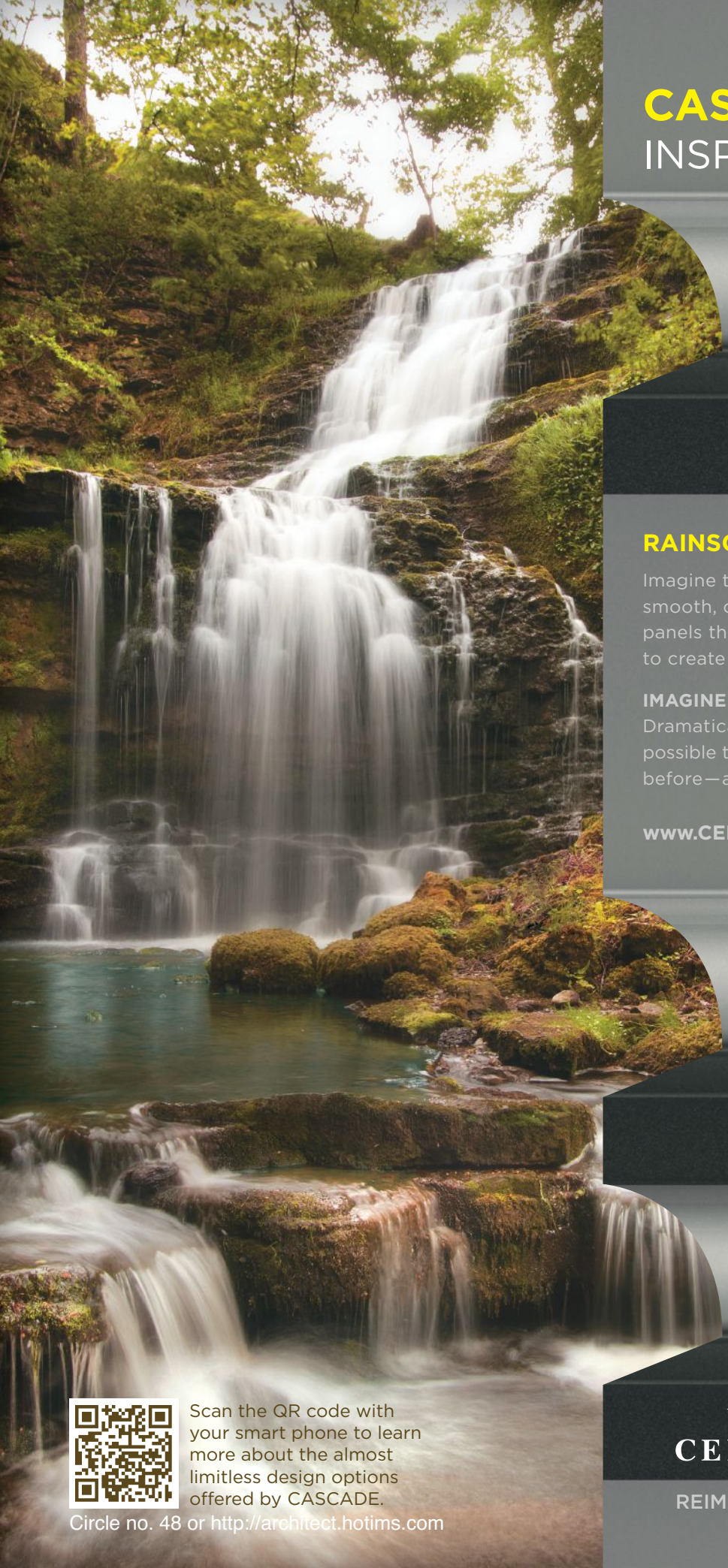
Which brings me to the question that faces me as an architect: What is the nature of the social compact that grounds our profession and underscores everything we do? Since this most public of arts provides the setting for social interaction, how are we facilitating this interaction? How are we contributing to the resiliency that's bundled in the word "community"? Is our placemaking gated or open, platinum for those who can afford it but something quite different for those who can't?

At last October's AIA-sponsored Remaking Cities Congress in Pittsburgh, there was a spirited exchange about how to tackle the challenge of reinventing older industrial cities. How could once-thriving urban cores like Turin, Italy, and Detroit, that had been the ladder for opportunity, once again support vibrant, healthy, and productive communities that are gateways to the prize of a better life? Somewhat to the surprise of both organizers and attendees, a common theme emerged. In workshop after workshop, speech after speech, the congress's participants flagged an unintended consequence of the much-vaunted revival transforming an increasing number of older downtowns. They warned we may be seeing the emergence of what some called "bipolar" cities in which certain areas or neighborhoods that can pay the price thrive, while other less-privileged areas decline economically and sink into despair. Stated simply, the congress raised the issue of social equity.

A relatively new term, social equity means that there should be fair access to education, livelihood, resources, and full participation in a community's political and cultural life. As a profession, we have made great progress in understanding how our work affects the way energy is used. We've even come up with a way to rank our work as silver, gold, or platinum. Led by the AIA, architects are making a convincing case that any conversation about health requires design thinking. And the increasing incidence of natural disasters has placed our profession at the center of discussions about mitigating their harm. But we should be making a similarly strong claim to initiate and lead discussions about social equity.

The federal government has stepped back from massive urban renewal and transportation projects. Rather than lamenting Washington's retreat from a position of master planner, this is an opportunity for architects at the local level to create a forum for idea-generating conversations with community leaders and elected officials about equitable placemaking. In using the power of design to benefit the community as a whole, we will be advocating a platinum standard not just for some, but for *all* citizens, many of whom might otherwise be left behind. AIA

Helene Combs Dreiling, FAIA
2014 President



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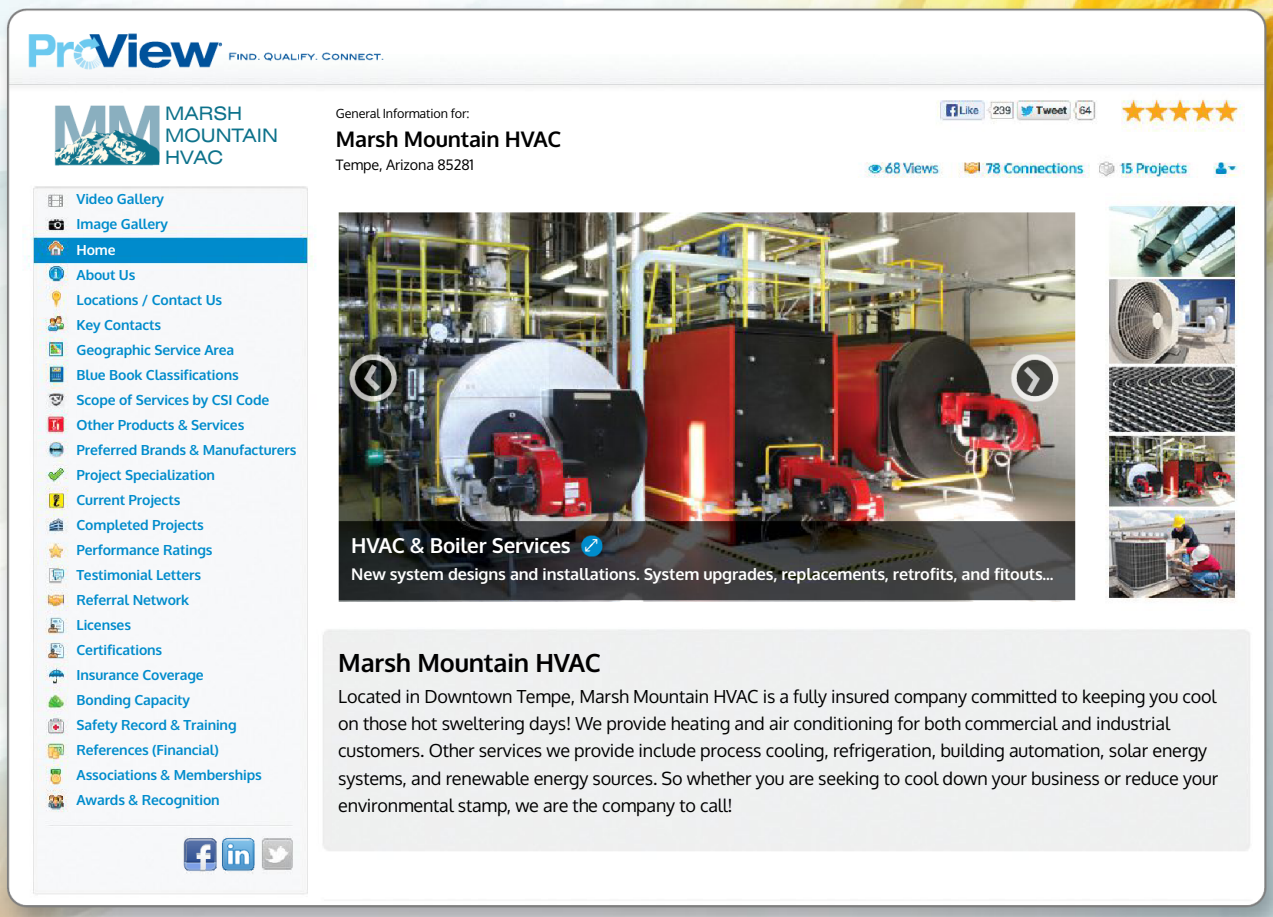

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Text by **Hallie Busta**
Edited by **Wanda Lau**

SMOOTH CONNECTIONS

Designed and manufactured by Auburn, Maine–based Thos. Moser, the **Hunt Chair**'s Minimalist, sweeping frame offers a contemporary redux of the classic Bank-of-England style chair. Originally commissioned for the Quiet Reading Room in North Carolina State University's James B. Hunt Jr. Library, which was designed by Snøhetta, the solid-wood unit is "a legacy chair" for libraries, conference rooms, and dining areas, says Aaron Moser, director of the company's contract division. "It's one thing to design a chair that is really strong and lasts a long time, and it's another to make sure it has [design] appeal." Available with or without a seat back, and in several wood species (cherry, shown). *thosmoser.com* Circle 101

LIGHT LOAD

London designer Benjamin Hubert crafted a wood table that's light enough to lob across the room. Three-ply, 0.8mm-thick pressure-laminated plywood sheets give the 20-lb. **Ripple** its high strength-to-weight ratio. *benjaminhubert.co.uk* Circle 102

OPPOSITES ATTRACT

Achieve design versatility and material contrast with this pendant designed by German studio Schneid. **Eikon**'s wood socket connects to its shade using hidden magnets. The luminaire will be available in the U.S. in March. *schneid.org* Circle 103

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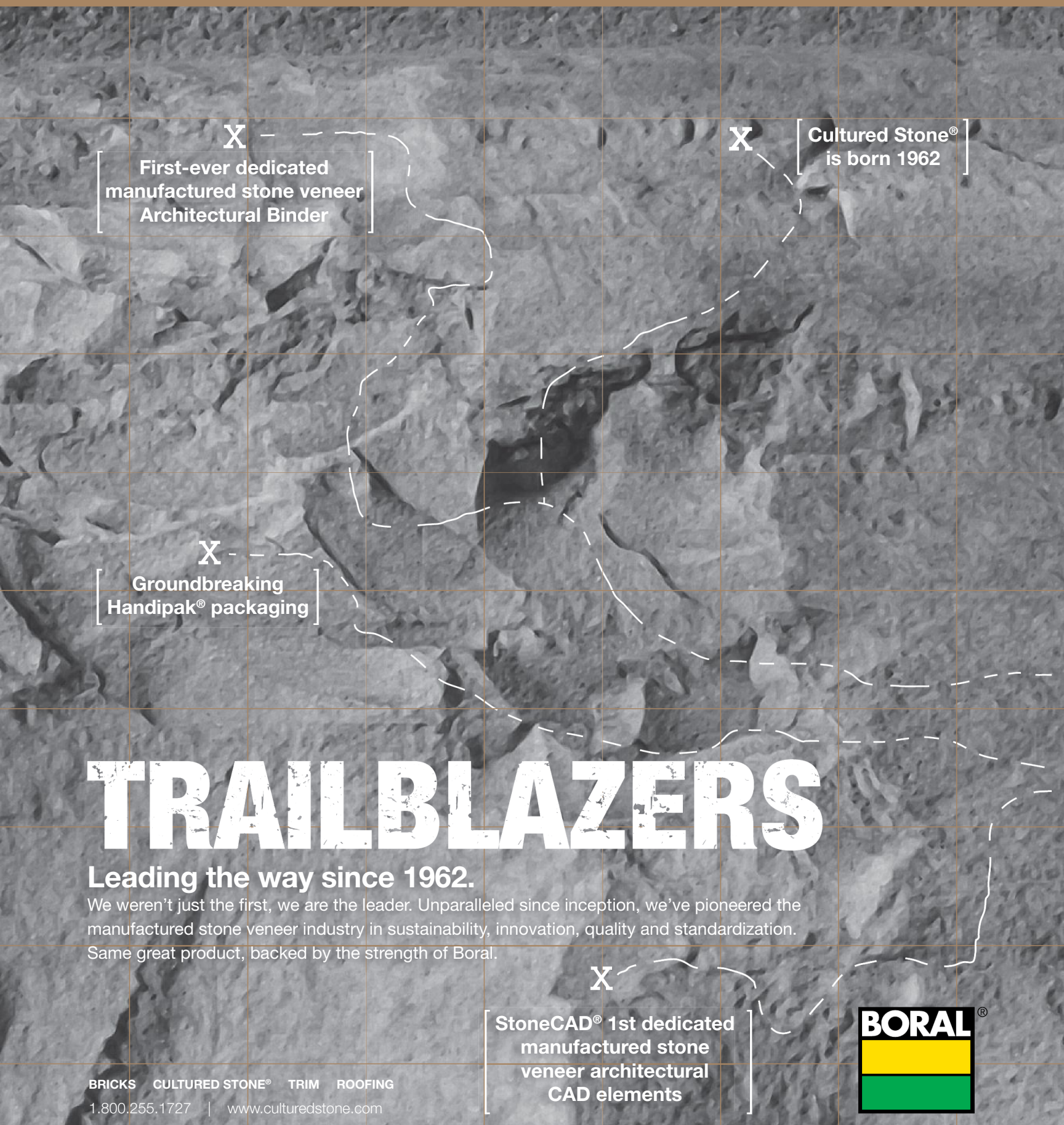

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The Right Angles

FOR YEARS, SANJAY PURI, principal of Sanjay Puri Architects in Mumbai, India, wondered why walls and ceilings were kept distinct. Puri experimented with his counter-orthogonal vision in the Auriga restaurant, where he created a mesmerizing, wood-clad room that "feels like the inside of a sculpture," he says. For the second level of the nearly-4,000-square-foot restaurant, perched atop a nightclub on a tree-lined side street in the city's Mahalaxmi neighborhood, "the client wanted a warm ambience, [so] we decided to use wood," he says.

Puri sourced strips of exterior-grade plywood discarded by a furniture company and several residential interior contractors to craft his inspiration. Installed on their edges in undulating angular planes, the wood strips clad the walls, ceiling, kitchen counter, and serving-bar counter, creating a fluid volume that redefines the way interior spaces are perceived.

While one may expect the repetitive forms to be computer generated, Puri used no software for the interior. He made preliminary sketches by hand to "explain the process" to the carpenters and then worked on-site, returning every other day, to direct the builders. Together, they made mockups and marked points on the ceiling using a pencil tied to a long stick. "The design was created organically and spontaneously, the way one would start an abstract painting with one stroke and then continue adding to it over time," Puri says.

The biggest challenge was avoiding right-angled corners, he says. Through trial and error—and by working weekends with the carpentry crew—he masked the space's orthogonal arrangement with a series of smaller facets. In spots where two corner walls meet the ceiling, up to seven facets converge to soften the angle. —LOGAN WARD

Learn more about the design of the Auriga restaurant at architectmagazine.com. The Detail series of innovative material-assembly solutions is proudly supported by reThink Wood.

IN THE LAB

Nano Scale
The U.S. Forest Service is developing cellulose nanocrystals from wood fibers—touted as being as strong as steel at one-sixth the weight—to replace standby additives such as Kevlar and carbon fibers in high-performance composites. *www.fs.fed.us*

Strong Foundations
Researchers at the University of Massachusetts Amherst found that attaching glulam to the base of a concrete slab in wood–concrete composites using a shear connector can double the assembly's strength and increase its stiffness by up to four times that of non-connected systems. *bct.eco.umass.edu*

Thermal Gains
With support from the National Science Foundation, University of Minnesota Duluth scientists are exploring the use of thermal modification to improve the dimensional stability and moisture resistance of engineered wood. The chemical-free wood treatment process is used in Europe. *www.nrri.umn.edu*

To minimize repetition, each tile's surface is digitally printed with one of nearly 100 graphical versions of the design.

WORN WOOD

The weathered aesthetic of rustic wood is reinterpreted on a ceramic surface by Italian tile maker Ceramica Fioranese. The **Old Wood** matte porcelain tiles contain 40% pre-consumer recycled content. *fioranese.it* Circle 104

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PHOTO CREDIT: LAWRENCE ANDERSON

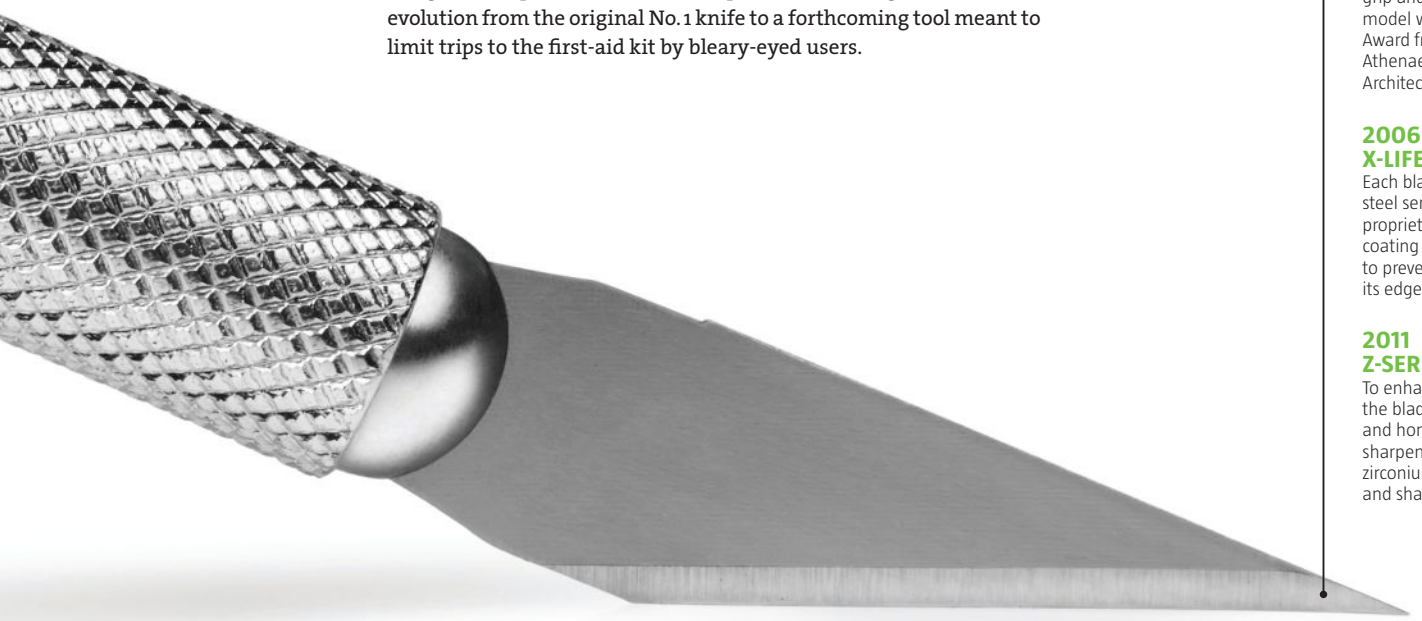
IN CONTEXT

A Slice of History

SINCE ITS CHANCE INCEPTION IN THE 1930S, THE X-ACTO KNIFE HAS GAINED CULT STATUS FOR ITS CLEAN CUTS AND GOOD DESIGN.

Text by **Hallie Busta**
Photo by **Charlie Nucci**

X-ACTO EXPLAINS the genesis of its now-ubiquitous precision knives—the source of scars marking a designer's studio years—as an ironic stroke of luck. Founded in New York in 1917 by Polish immigrant and businessman Sundel Doniger, the company, now based in Westerville, Ohio, first fabricated medical syringes and, later, scalpels with interchangeable blades. In the 1930s, when an in-house designer needed a sharp edge to retouch a print advertisement, Doniger turned out a hobby knife similar in design to his company's scalpels. Over time, the hobby knives have become easier to hold, custom-designed for specific tasks, and less prone to breaking. We track their evolution from the original No. 1 knife to a forthcoming tool meant to limit trips to the first-aid kit by bleary-eyed users.



1930S
FIRST KNIFE
X-Acto's flagship product, known today as the No. 1, had a solid aluminum body and carbon-steel blade, as most of the company's knives do today.

1996
X2000 KNIFE
Sporting an ergonomic grip and sharp tip, this model won a Good Design Award from the Chicago Athenaeum Museum of Architecture and Design.

2006
X-LIFE BLADE
Each blade in this carbide-steel series receives a proprietary blue-colored coating that is formulated to prevent rust and to keep its edge sharper longer.

2011
Z-SERIES BLADE
To enhance their durability, the blades are ground and honed via atomic sharpening, coated in a zirconium-nitride ceramic, and sharpened again.

ON POINT
Matt Zuby, associate product manager for X-Acto, talks with ARCHITECT about how the company designs its blades and handles, and drops a few hints about its latest innovation.

How has the design of the X-Acto knife evolved?
The core has been maintained. It's a classic, timeless design. Everyone from an architect to a crafter can relate to a good user experience. We've focused development on creating a wider variety of handle options and enhancing the blades' durability.

In what ways are the blades more resilient?
There are two types of blades: One is extremely sharp and begins to dull as soon as you start cutting. The other isn't as sharp but can maintain that [relative] level of sharpness for a longer period of time. When we created the Z-Series (in 2011), we were trying to meld those two ends of the spectrum into a durable, long-lasting blade that's very sharp.

And the handles?
Innovation in the last decade has been around ergonomics and color. Every two years we poll our audience for feedback. One item that comes up often is ergonomic grips. Stage one is understanding that there is a consumer need for more ergonomic grips. The second stage is working with a CAD design or model to develop a starting point of what we think an ergonomic grip would be and then testing a plastic model with various consumer groups to see how it looks and feels.

Who participates in these tests?
We work with groups of designers and architects. We'll also poll a general audience, bringing in focus groups of a certain demographic or certain [practice] area. If we're creating a new craft tool, for example, we'll look at a demographic skewed more toward women.

What's next?
We're working on a knife with an LED light integrated at the point where the handle meets the blade and that would shine light on the area where a user is cutting. The light is activated similar to clicking a pen and uses a No. 11 blade. It is designed to improve visibility for people who are not working in the best light—but not in total darkness. Hopefully, we'll see it in the back half of 2014, maybe 2015.

Read the full Q+A at architectmagazine.com.

PETER ARKLE

DETAIL

Ramping Up

A FLOATING CONCRETE WALKWAY BY MATEO ARQUITECTURA IS INTENDED TO BE INVISIBLE TO VISITORS TO THE CULTURAL CENTER IN CASTELO BRANCO, PORTUGAL.

The cantilevered concrete ramp by Mateo Arquitectura helps erase the spatial distinction between floors, allowing visitors to focus on the center's artwork.

Text by **Logan Ward**
Photos by **Adrià Goula**

OPTIMIZE FLOW. That was the goal that drove Barcelona, Spain–based Mateo Arquitectura's design of the Praça Largo da Devesa plaza in Castelo Branco, Portugal, and the 46,000-square-foot cultural center that floats above it on twin piers. Just as the plaza's basalt cobblestones channel the flow of rainwater, an elegant, thin concrete ramp leads visitors between the cultural center's two levels of exhibition space.

Stairs would have been easier to build, but principal Josep Lluís Mateo wanted visitors to focus on the art and not on their feet. "My dream was for people to move from one level to another without noticing," he says. "I didn't want the transition to be a moment in itself. I wanted it to be lost in the experience."

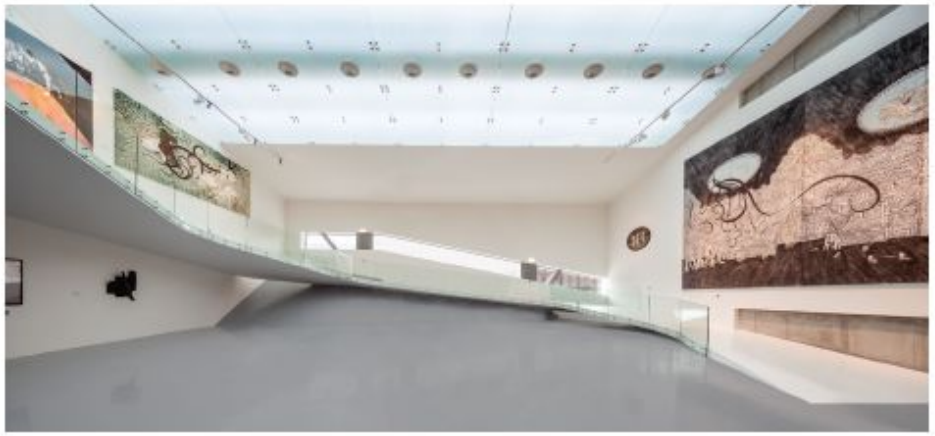
The 115-foot-long ramp had to be as discreet as possible; a bulky structure supported by columns or cables would have broken the spell. Designing a wisp of a structure that could bear the weight of dozens of enthralled art admirers became the challenge.

As a result, the concrete ramp emerges imperceptibly from the exposed, smooth-finished concrete floor of the lower level to a thickness of 7⅛ inches. It gradually curves up past sculptures and canvases to the mezzanine, varying in width from 6 feet 3 inches to 11 feet 10 inches.

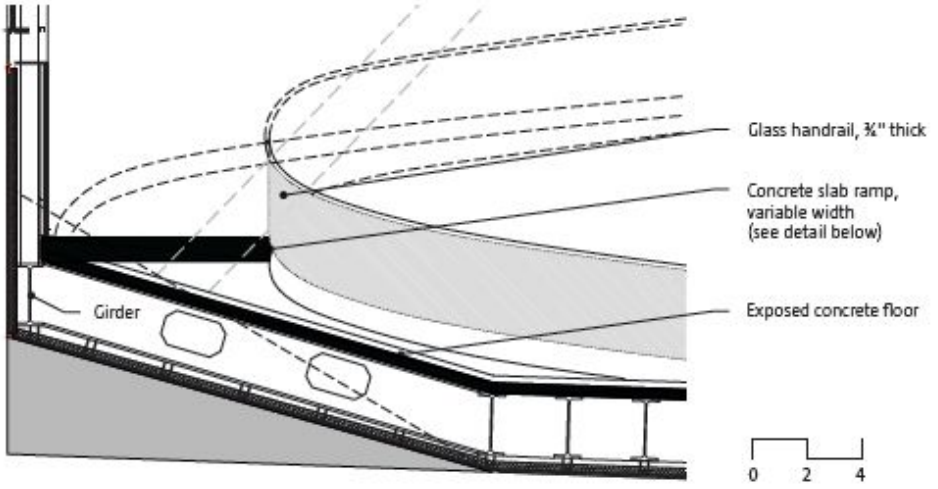
Working with engineering firm Manuel Arguijo y Asociados, also based in Barcelona, Spain, Mateo Arquitectura minimized the ramp's bulk with a cantilevered concrete structure supported by eight tapered European-standard wide-flange beams (HEB 320) that tie into steel girders in the building's load-bearing walls. The concrete ramp itself is reinforced by a dense grid of steel rods, anchored by six large peripheral rods running beam-to-beam through openings cut into the wide-flange beams' web. The entire ramp required about 26 cubic yards of concrete and was completed in a single pour.

Enhancing the ramp's minimalism is an invisible safety railing made from 43-inch-tall glass panels—comprising a ¾-inch-thick sandwich of tempered and laminated lites—bolted to the ramp with stainless steel hardware. Portuguese company Vidreira Ideal do Fundão supplied the glass.

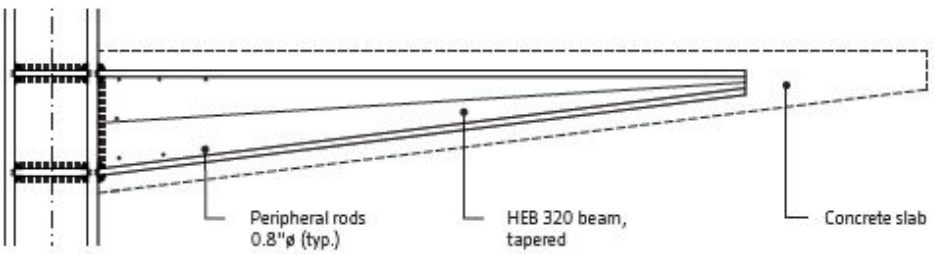
The ramp has helped erase the spatial distinction between floors. Visitors to the cultural center, which was completed in December 2013, can confront the exhibit hall's oversized paintings and sculptures from different angles as they rise or descend. "I chose the simplest ramp I could imagine," Mateo says. "I wanted it to look like a floating canopy."



Wall and Ramp Section



Ramp Section Detail



MIND & MATTER

Iron Man

STEEL IS THE WORLD'S MOST WIDELY RECYCLED MATERIAL, BUT ITS HIGH EMBODIED ENERGY IS ROUGHLY EQUIVALENT TO THAT OF CONCRETE. A NEW METHOD TO EXTRACT IRON FROM VIRGIN RESOURCES MIGHT GIVE THE METAL ALLOY THE ENVIRONMENTAL EDGE AFTER ALL.

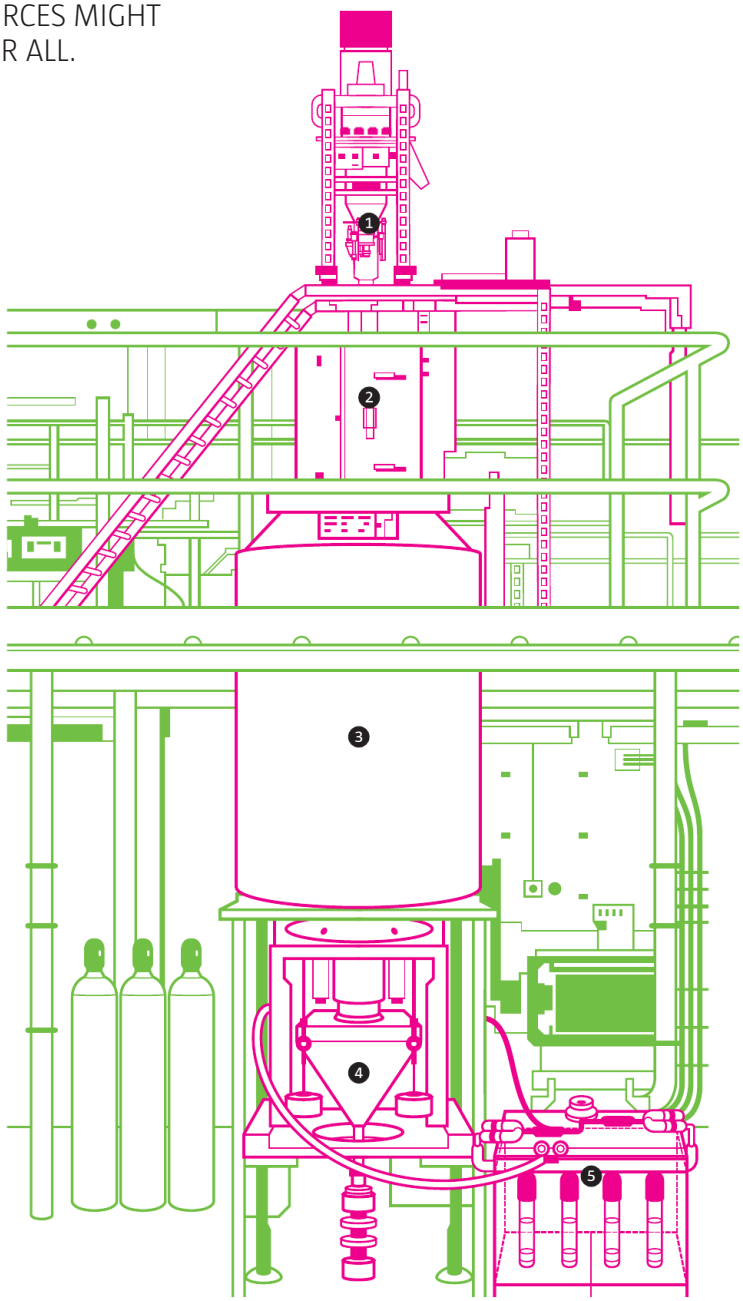
Text by **Blaine Brownell, AIA**
Illustration by **Jameson Simpson**

WITH A MANUFACTURING process responsible for 7 percent of the world's carbon-dioxide emissions, concrete often gets a bad rap. But steel, frankly, is no better. Steel production is the second-largest industrial consumer of energy.

To improve steel's track record in this area, researchers at the University of Utah have developed a flash-forming reduction technique that produces iron—the primary component of steel—in a more efficient manner. Typically, liquid iron is smelted from a mixture of iron ore, limestone, and coke (a high-carbon fuel made from coal) in a blast furnace, requiring a lot of heat and forced air. Instead of using coke, the Utah researchers' flash iron-making process uses hydrogen or natural gas to extract the iron particles through reduction. "These gases ... have a greater affinity to oxygen than iron," says Hong Yong Sohn, a professor of metallurgical engineering and an adjunct professor of chemical engineering at the university. "Thus, they remove oxygen from iron oxide in iron ore, leaving iron in the metallic state."

This approach can leverage the large quantity of iron ore concentrate—particles smaller than 0.1 millimeter—that is produced in the United States and other countries, and bypass the intermediate step of forming the particles into ½-inch pellets before ironmaking. Steel producers could streamline the process further by making steel in the same vessel as the molten iron and foregoing the blast furnace altogether.

The technology, which may require another three to five years to reach commercialization, would slash the energy requirements needed to make iron by half, Sohn says. It would also emit only 0.04 metric tons of CO_2 per metric ton of iron—a 97.5 percent improvement over using the conventional blast furnace.



EXPERIMENTAL FLASH REACTOR

1. Power Feeder
Using a rotating disk and blade, this device feeds iron ore concentrate at a constant rate along with the process gas, namely hydrogen.

2. Preheater
The experimental reactor preheats the hydrogen. A commercial reactor will be lined with bricks to reduce heat loss, eliminating the need for this component.

3. Flash Reactor
In an environment heated to temperatures between 1300 C and 1600 C, the hydrogen reacts with iron ore in seconds, producing iron and water vapor.

4. Collection Chamber
This gas-tight chamber collects iron particles in a controlled atmosphere to prevent re-oxidization. The particles can be briquetted for further use.

5. Off-Gas Scrubber
The off-gas—which has unreacted hydrogen, water vapor, and fine dusts—is bubbled through water to cool it and remove the dusts.

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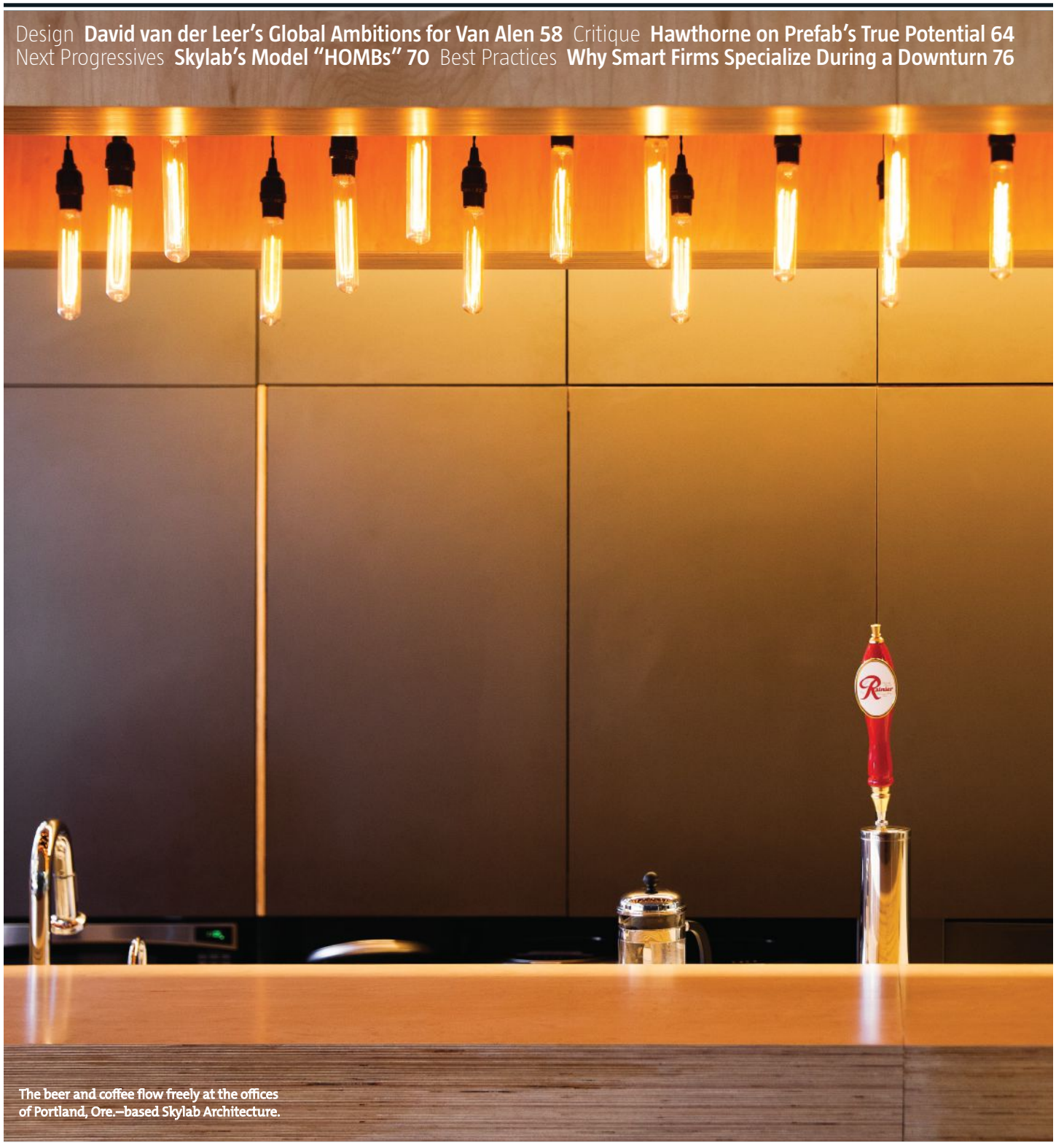

The beer and coffee flow freely at the offices of Portland, Ore.–based Skylab Architecture.

KYLE JOHNSON

DESIGN

REVIVAL ON 22ND STREET

DAVID VAN DER LEER IS BRINGING HIS EXPANSIVE VISION OF URBAN DESIGN FROM THE GUGGENHEIM TO THE VAN ALEN INSTITUTE, WHERE A REDESIGNED STOREFRONT IS JUST ONE OF MANY CHANGES AFOOT.

Text by **Mimi Zeiger**
Photos by **Noah Kalina**

THIS YEAR, the Van Alen Institute in New York celebrates its 120th anniversary. It's hard to believe that an organization that was founded in 1894 as the Society of Beaux-Arts Architects would find itself in 2014 with a taxi-yellow bookshop on West 22nd Street, the drive to keep reinventing itself, and a new leader with a global vision.

David van der Leer was appointed in March 2013 as the executive director of the Van Alen Institute (VAI), a nonprofit that researches and shapes discussions about how design influences the public realm. He grew up in the suburbs of Rotterdam, Netherland, and he is soft spoken while boasting an impressive résumé. Previously an associate curator of architecture and urban studies at the Solomon R. Guggenheim Museum, he was the co-curator of both the mobile BMW Guggenheim Lab, an urban design think tank that traveled to New York, Berlin, and Mumbai, as well as the 2012 American Pavilion of the Venice Architecture Biennale, where he served as a curator of the U.S. Pavilion, alongside Cathy Lang Ho and ARCHITECT editor-in-chief Ned Cramer.

He inherits an organization that, like many of its counterparts, has supported a host of public programming: exhibitions, competitions, and symposia. Which means that even as the VAI has embarked on high-profile public ventures—such as serving as a collaborative partner on Rebuild by Design, the regional initiative established as part of President Barack Obama's Hurricane Sandy Rebuilding Task Force—it has also hosted intimate panel discussions to celebrate the releases of relatively obscure scholarly journals.

Still, the VAI has struggled to differentiate itself from other New York architecture organizations. It's a crowded field, with heavyweights such as the Architectural League of New York and the American Institute of Architects' Center for Architecture, and rowdier

More images at architectmagazine.com

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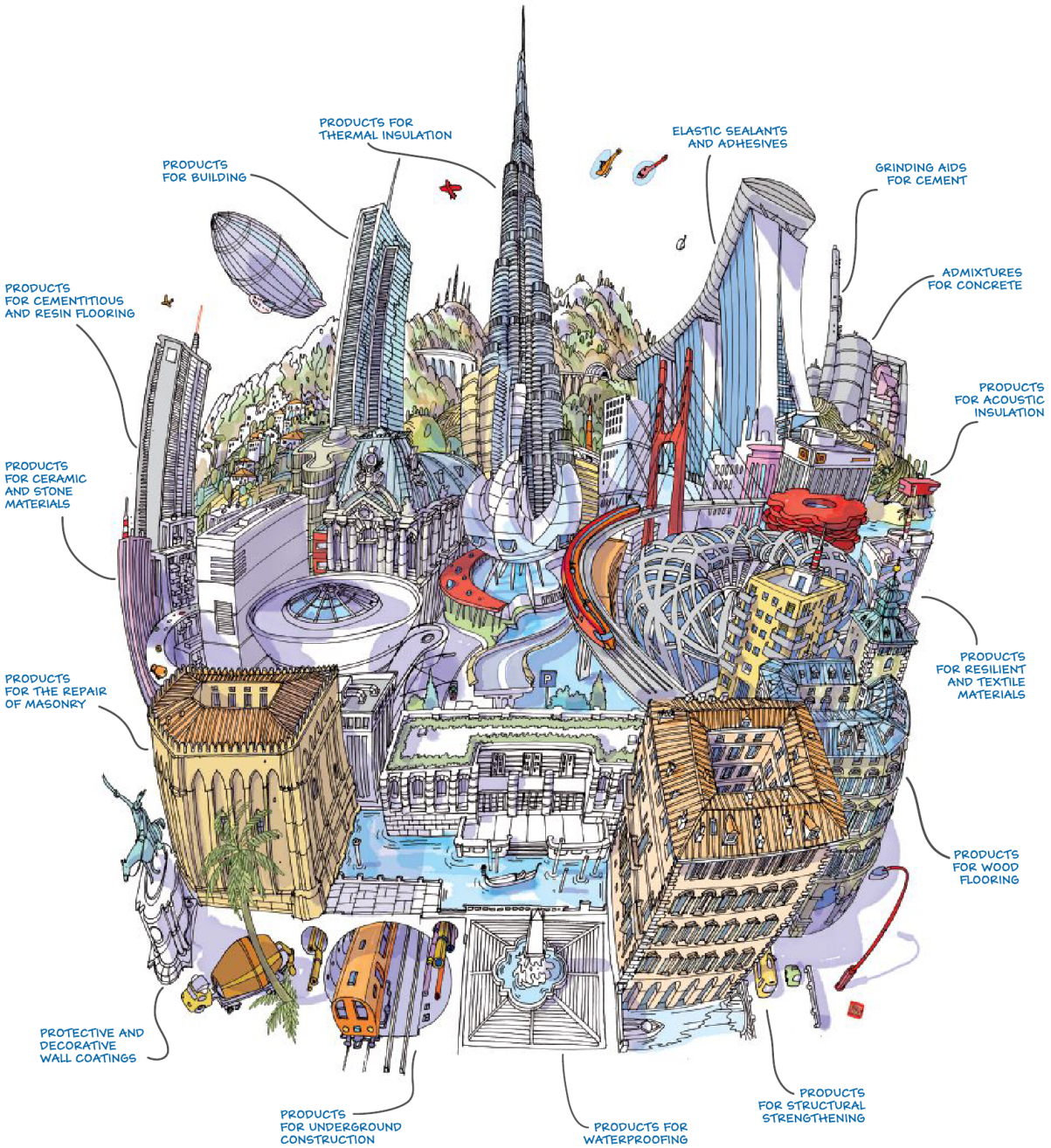

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Top left: The Van Alen Institute storefront currently houses Van Alen Books. **Above:** The interior of the existing bookstore. Collective-LOK will completely redesign the space to include offices, meeting rooms, and areas for workshops and exhibits. **Left:** The redesign includes a "street seat"—a mobile bench featuring mirrored panels that will be sited in a parking spot in front of the entrance.

TOP AND BOTTOM: COURTESY VAN ALEN INSTITUTE/COLLECTIVE LOK

outposts that include the Storefront for Art and Architecture and Columbia University's Studio-X.

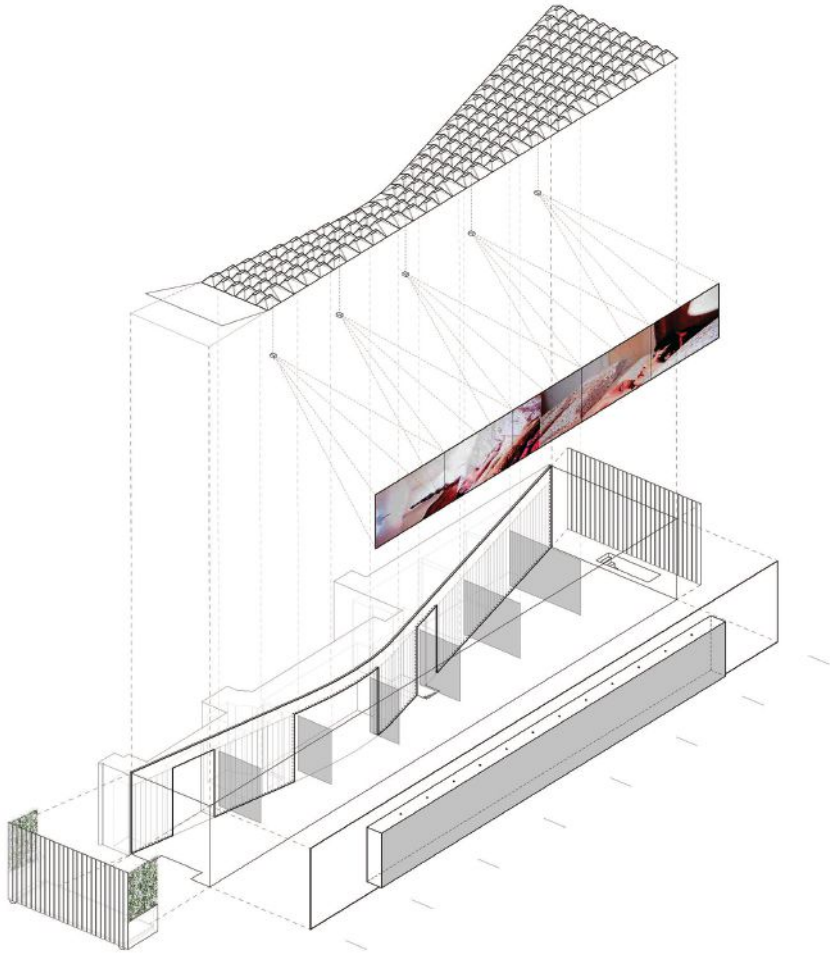
Enter van der Leer, whose multinational and multidisciplinary approach is behind his ambitious plans to rethink the mission of the VAI. "How do we operate within a national and international context, while not forgetting about New York City?" he asks. "It's also important to think about the places where there aren't 15 organizations looking at spatial relationships in the city."

In January, the VAI named Kai-Uwe Bergmann, a partner at Bjarke Ingels Group (BIG), which is based in New York and Copenhagen, as chair of the board's International Committee—one of three new board appointments. And while the expansion of the VAI's scope is clearly a strategic move to increase its influence in a larger dialogue about urbanism, it may also reflect a restlessness with architecture's default insularity and the tendency to keep speculative conversations within the academic realm of the discipline.

While at the Guggenheim, van der Leer quietly jostled boundaries when he curated "stillspotting nyc," a series of multidisciplinary programs in each of the five boroughs that explored how residents find reprieve from the constant urban buzz. The series included architects, sure, but also sound and performance artists, composers, and writers.

THIS PAST NOVEMBER, the VAI launched "Elsewhere," a two-year-long programming and research initiative. Subtitled "Escape and the Urban Landscape," "Elsewhere" extends van der Leer's "stillspotting nyc" explorations. Off-site events (a stargazing walk to discuss light pollution, for instance) will bring together diverse group of practitioners, and workshops (such as Debt, Design, and Displacement in the City, which was held in November) will tackle social justice, economics, and policy issues, including topics such as urban mobility and housing inequity.

"Poetic, big themes give you access to other disciplines and other publics," van der Leer says. "The two-year timeline allows us to



Top: A rendering of Collective-LOK's design for the Van Alen Institute's new storefront, which features a flexible plan and aims to better engage visitors with exhibit space and other programming. **Above:** A diagram of the Collective-LOK design. Projectors will be tucked into the ceiling. The spaces widen in the back, where events can be staged. **Opposite:** Translucent scrims will divide the space for meetings and workshops.

COURTESY VAN ALEN INSTITUTE/COLLECTIVE LOK

keep things open so that we can keep plugging in new ideas and developing stakeholders." Additionally, he hopes that the longer timeframe will allow for a more articulated approach to research and will help jumpstart the VAI's fellowship program, which has been dormant since the beginning of 2011.

Van der Leer also has ambitious plans for new design competitions, which the VAI has long sponsored. In 1999, the organization's "TKTS2K" competition helped spark the remaking of Times Square. And in 2011, the VAI partnered with the U.S. National Park Service and the National Parks Conservation Association to launch "Parks for the People: A Student Competition to Reimagine America's National Parks."

In late 2013, van der Leer added to the list by unveiling "Changing Course," a competition geared to reimagining a sustainable infrastructure for the lower Mississippi River Delta. With partners that include local leaders, a former oil company exec, scientists, engineers, and even the State of Louisiana and the U.S. Army Corps of Engineers, the competition aims to present proposals for the 2017 version of Louisiana's master plan. It is as complex and geographically ambitious as any project that the VAI has taken on to date.

"'Changing Course' is similar in scope to 'Rebuild by Design.' It's the logical next step," says board chair Stephen Cassell, AIA, who is principal of the New York City–based firm Architecture Research Office and a member of the competition leadership team. "Certain ideas can only be engaged at the larger scale through design and engineering."

PERHAPS THE MOST visible change to the VAI will happen closer to home. This spring, the institute will begin construction on the redesign of its 22nd Street headquarters, located in an especially narrow, six-story office building. Collective-LOK—a collaboration between Jon Lott of Brooklyn, N.Y.–based PARA-Project; William O'Brien Jr. of Cambridge, Mass.; and Michael Kubo of Boston-based Over Under—won the competition, titled Ground/Work, that the VAI held to choose the project architects.

Collective-LOK's scheme reinvents the entire 1,620-square-foot ground-floor space, currently occupied by Van Alen Books, which opened in 2011 and was designed by LOT-EK, a firm based in New York and Naples, Italy. The redesign features a slightly curving wall of polycarbonate panels, behind which will be an array of offices (which are currently located on the fourth floor of the building), meeting rooms, and storage. The remaining space will be flexible, with lightweight translucent scrims at the ready to divide up the space for workshops, lectures, or exhibitions.

Collective-LOK's proposal includes a street seat—a mobile bench located in the parking spot in front of the building. Featuring mirrored panels, the seat plays with concepts of reflection and visibility; it simultaneously pushes programming onto the sidewalk as it conceals the storefront from passing traffic.

Van der Leer jokes that in the old space, the dominant experience for visitors was waiting for the elevator. He's optimistic that the new offices and programming spaces—the bookstore has also been folded into the redesign—will help the institution better connect to its audience at street level.

Because, ultimately, what's the point of studying the global city if you are detached from your own urban environment?

CRITIQUE

PREFAB GROWS UP

FACTORY-BUILT HOMES HAVE GOTTEN THE HYPE, BUT MODULAR'S TRUE POTENTIAL MAY LIE IN BUILDING TALL.

Text by **Christopher Hawthorne**

REMEMBER THOSE PERFECTLY TRIM and modern modular designs that were supposed to revolutionize the home-building industry, and that seemed to appear every other month on the cover of certain shelter magazines?

Well, the prefab residential dream is still out there, battered but surviving, and seeming to cede none of the rhetorical high ground. Not long ago I saw an item about Pharrell Williams, the hip-hop impresario, teaming up with Zaha Hadid, Hon. FAIA, on a new line of prefab houses. ("There's a collaboration I'm working with Zaha Hadid," Williams told an interviewer. "We're touring around with the idea of a prefab for a house.") And then I came across a magazine essay about how "the factory-built home is gaining traction," and immediately was whisked back to those heady days of the early aughts, when every architecture buff I knew was shopping for a vacant lot to put up a sleek and affordable three-bedroom by Marmol Radziner or Michelle Kaufmann.

The truth, however, is that the aspiration at the core of all those stories about the modern prefab house—that it was a prototype for a new and cheaper way to get stylish architecture built at a mass scale—never really came close to being fulfilled. Like the Case Study Houses a half-century earlier, this 21st-century version of democratized High Architecture could never crack the byzantine, if profitable, code of the home-building industry, which continues to deliver tens of thousands of stick-built residences every year to subdivisions around the country.

It's not so much that there is not a substantial market in the United States for neo-modern prefabs; it's that the potential home buyers for those designs tend to live in major metropolitan areas where the available land is both very expensive and not flat. And it's cheap, flat land that makes any new home-building enterprise succeed at scale.

But a funny thing happened on the way to prefab's seeming demise: Modular construction began going vertical in a pretty significant and architecturally ambitious way. It turns out that while modular systems still don't make a lot of economic sense for one-off

Zhang Yue, a developer who is using a prefab system to build the world's tallest tower, Sky City, in Changsha, China, has constructed a test slice (lower left) of stories 165 to 173.

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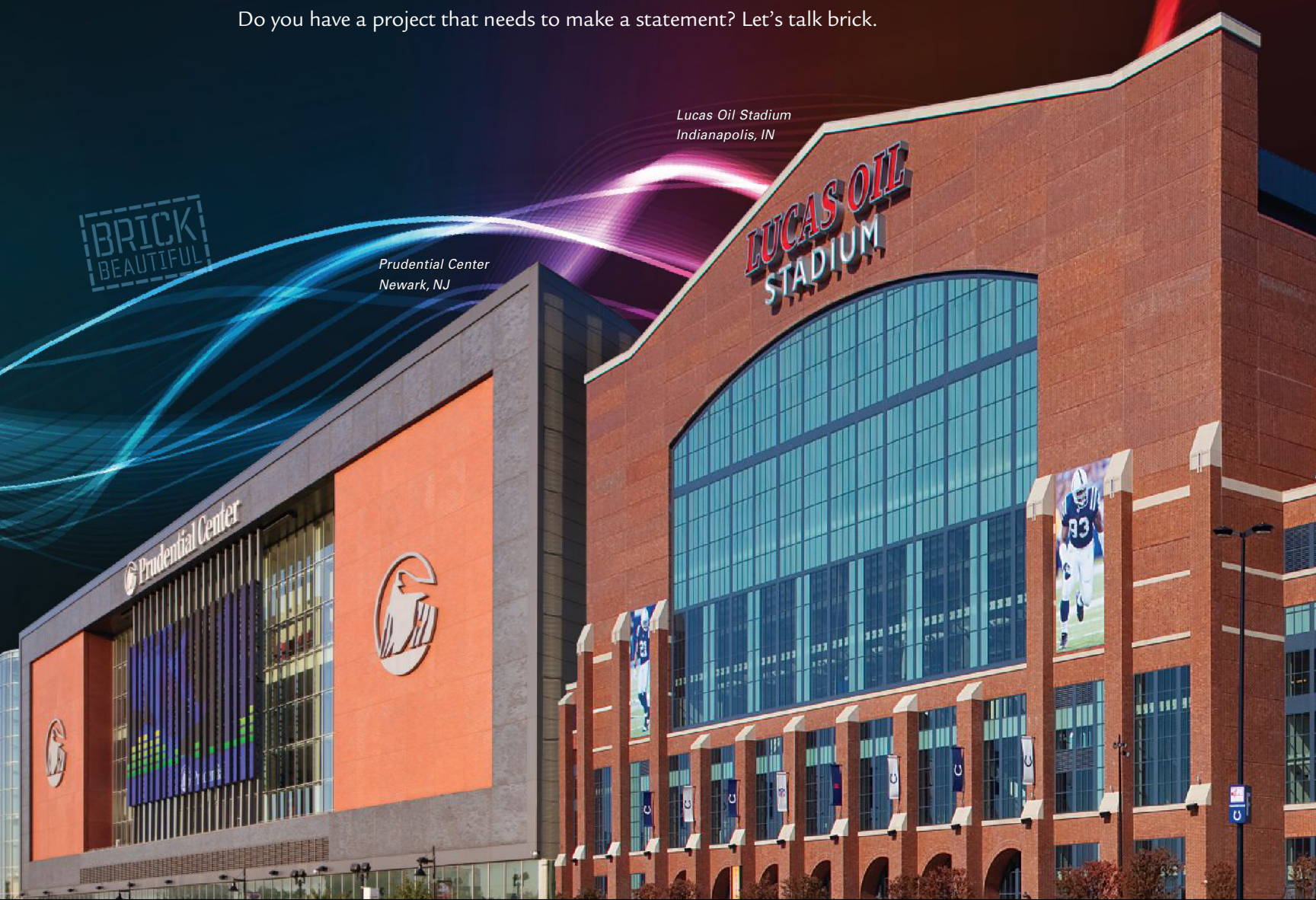

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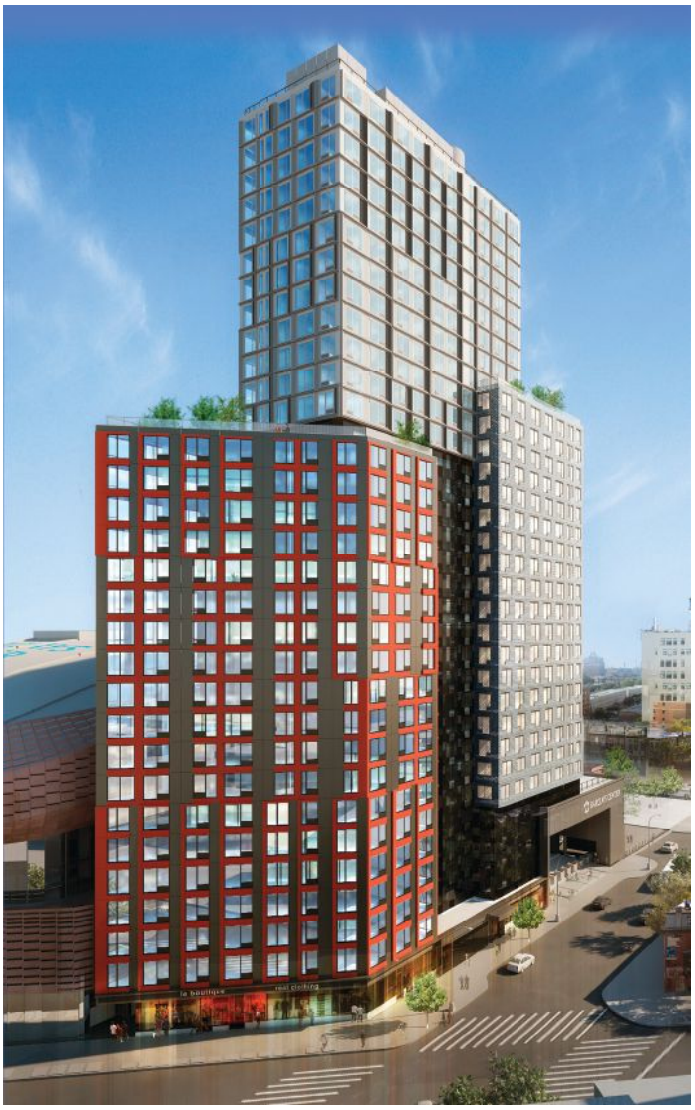


Clockwise from top left: SHoP's 32-story Brooklyn apartment tower, called B2, for the Atlantic Yards project; Chinese developer Zhang Yue's Sky City project, which will rise 202 stories; Michael Maltzan's Star Apartments in Los Angeles, designed with 104 units for the Skid Row Housing Trust.

TOP LEFT: SHOP ARCHITECTS; TOP RIGHT: BROAD SUSTAINABLE BUILDING; BOTTOM: MICHAEL MALTZAN ARCHITECTURE INC.

projects aimed at design-savvy urbanites, there are some real efficiencies in applying them to taller urban buildings, particularly multifamily residential projects.

TWO HIGH-PROFILE PROJECTS now being built—an apartment tower by SHoP Architects in Brooklyn, N.Y., and a residential mid-rise by Michael Maltzan, FAIA, for the Skid Row Housing Trust in Los Angeles—use a modular system, the basics of which are already commonplace in the construction of roadside hotels and other quick-rising commercial architecture across the country. In each case, the architects say, going modular has modestly brought down costs while dramatically accelerating the construction process.

In China, meanwhile, a supremely ambitious real-estate developer and entrepreneur named Zhang Yue, who made his fortune outfitting new buildings with air-conditioning units in Shanghai, Beijing, and other cities, is hoping to build the world's tallest tower in just four months by relying on a proprietary prefab system. His Sky City project—meant to rise 202 stories, beating out the Burj Khalifa in Dubai for the title of tallest on Earth by 30 feet—has received a windfall of coverage in the Western press, much of it justifiably skeptical.

The start of construction has been delayed several times, and engineering experts have cast doubt on Zhang's claim that using a prefab system will slice building costs on the tower in half, compared with traditional methods, to an estimated $1.5 billion. Bureaucrats at the highest levels of the Chinese government in Beijing are said to be reviewing the building plans, or possibly holding them hostage. After scandals involving the shoddy construction of schools and other buildings, and a high-speed-rail crash in 2011 that killed 40 passengers, the Chinese have grown more cautious about record-breaking projects like Zhang's.

Still, having covered the stop-and-start progress of the CCTV tower in Beijing, by Rem Koolhaas and Ole Scheeren of the Office for Metropolitan Architecture, I'm not ready to write off Sky City altogether. There were several moments when CCTV seemed definitively dead and buried, felled by some of the same concerns inside China about overreach and hubris that now shroud plans for Zhang's tower. Uncertainty and even grave doubts about a major building's prospects seem to be a fundamental part of the design process in contemporary China.

Sky City, designed by a group of in-house designers at Zhang's new modular spinoff company, Broad Sustainable Building, will certainly have none of CCTV's singular architectural power. It is indeed almost un-designed, a simple toy-like stack of prefab units that, if built, would contain 4,450 apartments for 30,000 residents.

Instead of the architecture, it is the height of the building paired with a hyper-ambitious construction schedule that has drawn attention to Zhang's quixotic project, slated for a site on the outskirts of Changsha, a smog-choked city of 7 million inhabitants. He has said that the basic site work is complete, and that he'll be able to build the 202 stories in about 120 days. The Burj Khalifa, the current record-holder, took six years to build, and the tower set to surpass both it and Sky City, the kilometer-tall Kingdom Tower in Jeddah, Saudi Arabia, by Adrian Smith + Gordon Gill Architecture, will likely take at least as long.

Broad City has already proved the efficacy of its approach, at least for shorter towers, by

IN BROOKLYN, A MODULAR APPROACH'S APPEAL IS NOT JUST HEIGHT BUT SPEED—PLUS A QUIETER AND TIDIER KIND OF CONSTRUCTION.

building a 30-story apartment building in 15 days and a 15-story building in six days. Time-lapse videos of those towers zooming to completion have been watched by architects around the world, many of them with a combination of disdain at the generically forgettable design and envy at what it must be like to work in a country where the pace of construction seems to be accelerating by the month.

IN BROOKLYN, where SHoP took over developer Bruce Ratner's controversial Atlantic Yards mega-project from Frank Gehry, FAIA's office during the economic downturn, a modular approach's appeal is also speed—and, just as important, a quieter and tidier kind of construction.

In collaboration with the firm Ellerbe Becket (now part of AECOM), SHoP designed the well-received Barclays Center for Forest City Ratner Companies and the Brooklyn Nets. Now comes the first residential phase of the project, consisting of three apartment towers ranging in height from 25 to 49 stories. The first one, now under construction, is known as B2 and will rise 32 stories; the subsequent ones are called B3 and B4. The towers will contain a total of 1,500 units, half of them earmarked for low- and middle-income residents. The other half will be market-rate rentals. They will be the tallest modular buildings ever completed.

Chris Sharples, AIA, one of SHoP's founding principals, was careful to clarify in my interview with him some basic distinctions between modular and prefabricated building techniques. In modular towers like B2, entire sections—fully outfitted with appliances, cabinetry, lighting, and floor finishes—are built in a factory and then stacked on site. In prefab, it is panels or other parts that are delivered to a construction site, where they have to be assembled.

The difference can be crucial to the pace of construction and its efficiency. On the B2 tower, Sharples said, 60 percent of the work is being done in a factory, and 40 percent on site, trimming a 24-month construction timeline closer to 18 months. With that shorter timeline comes significant financial savings, since the carrying costs for construction loans are reduced.

With the second and third towers, SHoP hopes to push the ratio of factory-to-site time closer to 70-30 or even 80-20. And that brings benefits that have nothing to do with financing. Getting more of the construction work on a high-rise done in a factory, where the climate is predictable and everybody is working at ground level, means a safer job for trade workers, no small issue when you consider the dangerous history of high-rise building in New York and cities around the world. "The plumbers, the electricians, the

drywallers are all working together on the mods, on the factory floor, instead of separating the trades out," Sharples said.

A modular process also takes a lot of the mess and noise produced by construction out of the city—and out of people's neighborhoods—and behind the walls of a factory. For a project like Atlantic Yards, which has been highly controversial in Brooklyn throughout its various phases, the importance of that shift would be tough to overstate.

Sharples also said, despite the news coming out of Changsha, the most efficient kind of modular tower might be in the low- to mid-rise category. "If you do super-tall, above 50 stories, say, you'll need a brace frame," he said. "If you're shorter—if you're around 20 stories—you can integrate that lateral frame into the mods. And there's huge savings there."

MALTZAN'S MODULAR PROJECT, the Star Apartments, is, at six stories, even shorter. But by the standards of the Skid Row section of downtown L.A., home to one of the largest homeless populations in the U.S., this is vertical architecture. The project is a hybrid, combining the adaptive reuse of a small existing retail building with a podium above for community programs. Stacked in a zig-zag pattern above that is a collection of apartment modules—wood-framed units built in an Idaho factory—containing 104 studio apartments.

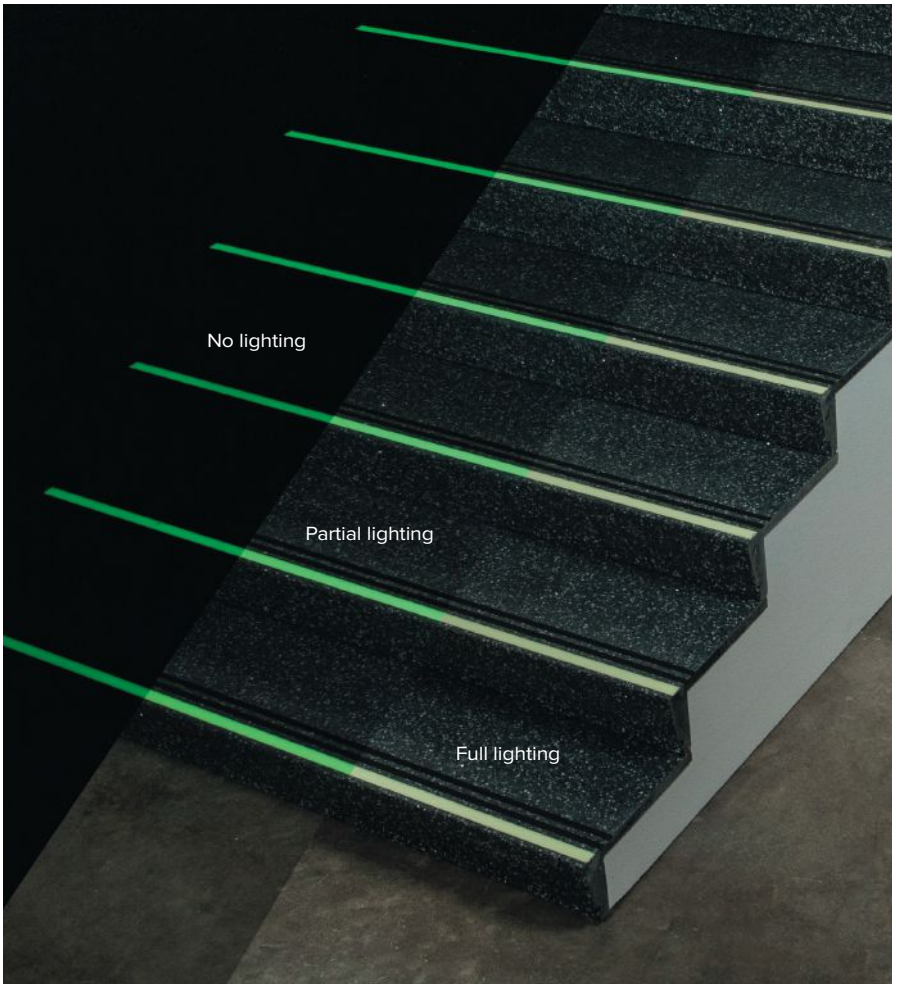
The method has cut construction time and therefore reduced carrying costs on the project. But as is the case in Brooklyn, the major appeal for Maltzan was the chance to move most of the construction and associated mess inside a factory. Since the Skid Row Housing Trust wanted—for a range of reasons—to keep the existing building on site and build around and above it, there was little room for a staging area for construction. Bringing the modules in by crane and dropping them atop the podium was a sort of necessary choreography, one that may become more common in L.A. as the city grows denser and less suburban.

Maltzan said the project required him to adjust the way he thinks about the design process. "You have to change your approach," he said. "There's no away around that. They do a mock-up of the unit early on, to test it. And at that moment you can see it fully in three dimensions and make corrections. But after that it's done—it's off to the races."

Still, he added, that system, as nerve-wracking as it can be for architects used to tweaking their designs as they're constructed, is the basis of modular's financial appeal: "There's no mystery to it. If you look at how manufacturing works in general, it is at its most cost-effective when it's producing multiples."

In the end, the biggest achievement in Maltzan's project may be the way it demonstrates that modular buildings can have real, and even unorthodox, formal appeal. The Sky City tower has a kind of dumb simplicity, and SHoP's Brooklyn towers, while a huge architectural step up from Changsha, will have a straightforward, unapologetically modular profile on the skyline.

Maltzan's Skid Row effort, surprisingly enough, uses a modular approach to make the final product appear more designed—more architectural—rather than less. The uneven stacking of the apartment units, and how they seem to hover in the air like tilting cabs on a Ferris wheel, seems likely to guarantee that the building, when finished, will carry with it none of the stale air of the factory.



NEXT PROGRESSIVES

STAR TURN

HOLLYWOOD CAME CALLING, BUT SKYLAB ARCHITECTURE DIDN'T SELL OUT. THE FIRM IS BUILDING ITS PRACTICE BY BRINGING THE SAME RIGOROUS IDEALS TO EVERY PROJECT.

Brent Grubb (left) and Jeff Kovel at Skylab's Columbia Boulevard Wastewater Treatment Plant's Engineering Building.

Text by **Deane Madsen**
Portraits by **Kyle Johnson**

SKYLAB ARCHITECTURE in Portland. Ore., may be best known, at least within pop culture circles, for its Hoke Residence. It was featured as the home of Edward Cullen, the protagonist in the *Twilight* movie series based on the books by Stephanie Miller. Since the first movie in the series debuted in 2008, there have been plenty of "Twi-hards" clamoring for a copy of their dream character's dream home, a multi-level timber-and-concrete dwelling with a cantilevered balcony in Forest Park, just outside of downtown Portland, Ore. Of course, says Jeff Kovel, AIA, the firm's principal architect, "Unless you have a triangular-shaped site with southern orientation on a 30-degree hill in a forest, this isn't going to be the right design for you."

Indeed, the Hoke Residence hasn't come to define Skylab, and the firm has slowly gathered momentum with its innovative modular work and wide-ranging commissions, including hospitality work for the W Seattle Hotel and the Summit Sky Lodge, an upcoming prefab ski resort in Utah.

For the just-completed offices of the Columbia Boulevard Water Treatment Plant (CBWTP) in north Portland, Skylab designed a solution for staff members who had been stuck working in individual trailers, while also preserving a cluster of old-growth trees and creating a best-practices showcase for stormwater management. The building's inflected concrete roof slabs, arranged radially, catch rainwater on their planted surfaces before channeling it into a bioswale. As Kovel tells it, "Our thought was rather than have the

ARCHITECT

THE EIGHTH ANNUAL

R+D AWARDS

CALL FOR ENTRIES

New technologies are revolutionizing the process and product of architecture. To celebrate advances in building technology, ARCHITECT magazine announces the eighth annual R+D Awards. The awards honor innovative concepts, systems, and materials at every scale—from HVAC and structural advances to digital technologies and programs, and to discrete building materials such as textiles and wood composites.

CATEGORIES

The awards will be judged in three categories, reflecting different stages in the research and development process:

- **Prototype**—Products, materials, systems, and software that are in the prototyping and testing phase.
- **Production**—Products, materials, systems, and software that are currently available for use.
- **Application**—Products, materials, systems, and software as used in a single architectural project or group of related architectural projects.

The jury will consider newly introduced technologies as well as unconventional uses of existing technologies. Entries will be judged for their documented or prospective innovation in fabrication, assembly, installation, user engagement, and performance. All entries will be judged according to their potential to advance the aesthetic, environmental, social, and technological value of architecture.

ELIGIBILITY

The awards are equally open to architects, designers of all disciplines, engineers, manufacturers, researchers, and students.

PUBLICATION

The winning entries will appear in the July 2014 issue of ARCHITECT, both in print and online.

DEADLINE

Friday, April 18, 2014
regular submission deadline (postmark)

Wednesday, April 23, 2014
late submission deadline (postmark; additional fee is required)

FEES

First entry: $175 first entry

Additional entries: $95 each

Late entries: $50 additional fee per entry by April 23, 2014. Submission requirements are available at rdawards.com.

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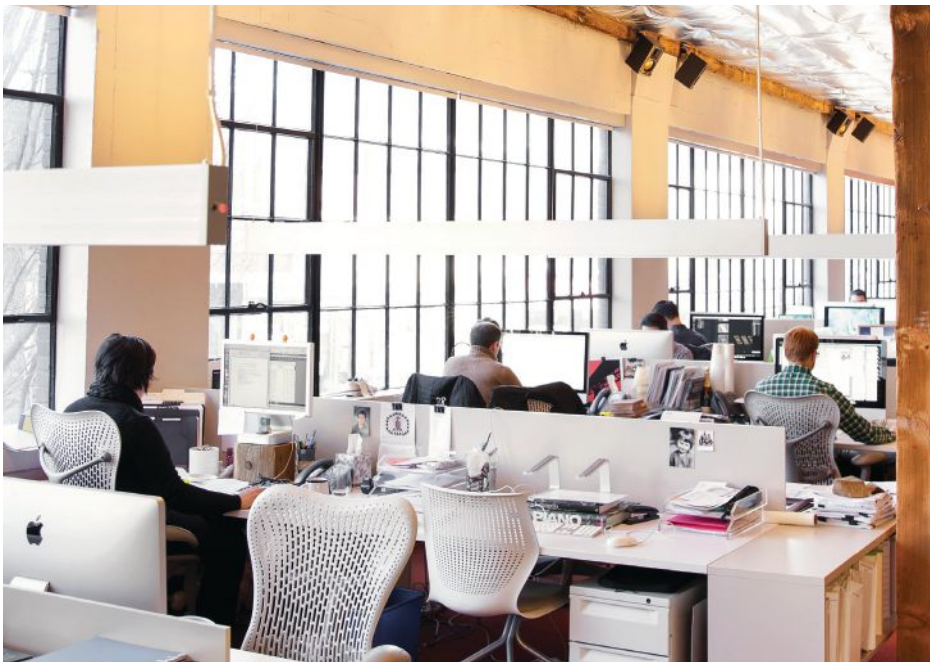


This page, top to bottom: Office space in Black Box, an adaptive reuse project in Portland with ground-floor retail; the Columbia Boulevard Wastewater Treatment Plant's Engineering Building, which features a series of folding roofs that modulate light and drain rainwater into bioswales; the Hoke Residence, which appeared in the *Twilight* movie series. **Opposite:** A rendering of HOMB High Density, a modular mixed-use building currently under construction in Portland.

building further scar the site, can it heal it, in a way?"

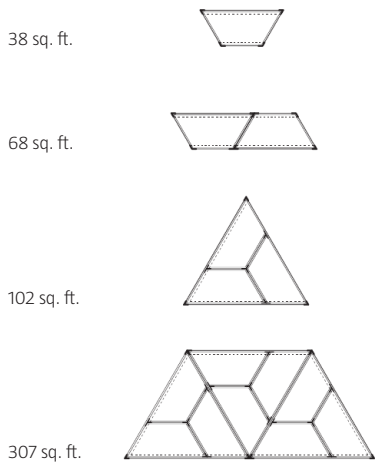
FOUNDED IN 1999 with what Kovel describes as "a full-on startup mentality," Skylab has grown to 27 employees. But that hasn't changed the firm's focus on customization. "We can give a high level of attention to a house and to a 300,000-square-foot building," says Brent Grubb, Skylab's other principal. "And they're not different in terms of the expectation of product delivery." But neither partner wants to see the firm's growth continue unchecked. "We don't really want to be a 100-person firm," Kovel says. "Brent and I are both really personally involved in the design work. We could continue to develop an incredible staff, but there's something boutique about what we're offering."

Both principals migrated to Portland after architecture school. Grubb spent a decade working for Skidmore, Owings & Merrill and Aidlin Darling Design after earning a degree from Ball State University in Indiana. Kovel, after completing his B.Arch. at Cornell University, landed a gig with a Portland-based firm called Architropolis, doing fast-paced projects for retailers and rock stars, most notably a Miami residence for musician Lenny Kravitz. He admired how Architropolis was willing to take on just about any project, of any scope or length. "I think that foundation, in a way, formed a lot of the diversity in our practice," Kovel says. "A crash course [in hospitality] for three years was really outside of what I thought my focus [would be] in architecture, but I think some of that DNA has always permeated our work."

TOP: KYLE JOHNSON; MIDDLE AND BOTTOM: JEREMY BITTERMANN

COURTESY SKYLAB ARCHITECTURE

HOMB Tesselation Diagram



In the first few years, Skylab designed a lot of kitchens and bathrooms, trying to build word-of-mouth recognition through quality work on small projects. Then came 1680 House, constructed on a site considered unbuildable because of its steep slope. Kovel served as developer, general contractor, and architect. The Hoke Residence of *Twilight* fame soon followed. After Kovel spoke at a charity event at the Hoke Residence, someone bought the lot next door and commissioned a new Skylab house, which Kovel describes as "*Iron Man* meets *Portlandia*"—it has a multi-car garage bermed into an artificial hillside, and a green roof covered in planters, chickens, and bees.

SUCH HIGH-PROFILE COMMISSIONS aside, Skylab has been refining its modular approach to residential construction. The firm, in conjunction with Seattle-based Method Homes, began developing a repeatable prefab module in 2008, during the Great Recession. The team settled upon HOMB (a combination of "home" and "honeycomb"): a 100-square-foot, triangular module made of LVL beams, steel, and SIPs. The module's integrated structure enables it to be tessellated and configured in infinite ways, according to a client's imagination and budget.

"We've had people build their own models of these and submit them," Kovel says. Grubb adds that "traditional homes are built with certain limitations, but with this system you'd be able to build one story now, and you could come in four years and build another. It becomes financially feasible to imagine it and build it in phases."

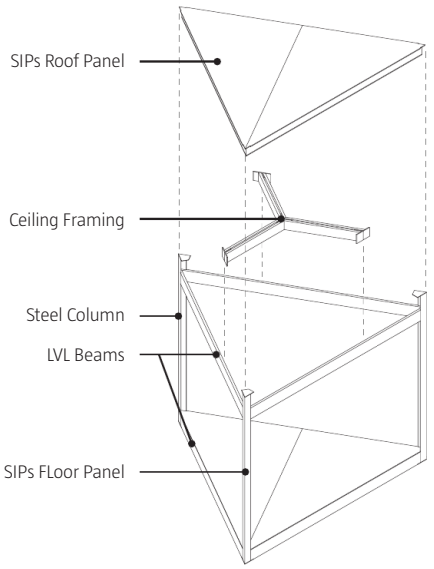
Kovel likens the firm's eventual goal to that of the electric carmaker Tesla Motors. Just like Tesla, which hopes to sell enough of its high-end cars to one day produce a model to market to the middle class, Kovel says that the hope is that Skylab's modular systems can eventually be used for affordable housing. The affluent clients who buy in to HOMB's research and development in the beginning stages will help pave the way for mainstream production, with economies of scale bringing costs down along the way.

Skylab assembled a prototype called the Ivy Street Residence, Portland's first ever prefab house, using 28 modules of the HOMB system. Fabricated in Seattle and shipped on six truck beds to Portland, the modules were "buttoned up" on site to create a four-bedroom residence and an additional dwelling unit, which together total 3,930 square feet.

Skylab is now using the HOMB modules to design a new prefab mixed-use retail and residential mid-rise with 21 units on Burnside Street in downtown Portland. With the Ivy Street Residence serving as a showroom, the firm is hoping to attract a million-dollar investment to help develop the prefab system for a high-density project of this significant scale. Having successfully produced both the single-family version and a commercial application, Skylab hopes to see the multifamily version take off next.

One thing is certain: The firm will probably never be typecast. As Kovel says, "The name Skylab is about optimism and exploration. Futurism, with a touch of irony."

Typical HOMB Assembly



The HOMB modules can be configured in an infinite number of permutations across size (small, medium, or large), exterior finish (natural, whitewashed, or blackened cedar), and interior finish (minimal, mixed, or all-wood), with the rigid internal structure (above) acting as the base chassis that clients can "trick out" as they choose.

BEST PRACTICES

THE POWER OF FOCUS

CHASING EVERY PROJECT MAY SEEM WISE IN A TIGHT ECONOMY. BUT SMART FIRMS SPECIALIZE. ARCHITECT ASKED LEADING PRACTITIONERS AND MANAGEMENT EXPERTS TO SHARE THEIR PERSPECTIVES.

Text by **Nate Berg**
Illustrations by **Peter Arkle**

IN LEAN TIMES, you take what you can get. For architecture firms still climbing out of a recession-sized hole, that can translate into bidding for just about any viable project that comes along, even if it's outside their zone of expertise. That can be seen as a sign of desperation or as an instinctual survival tactic. Ray Kogan, AIA, sees it as a mistake.

The president of Kogan & Company, an Arlington, Va.–based strategy and management consultancy, Kogan has been advising architecture and engineering firms for 20 years. He argues that during times of reduced demand, firms should be identifying what they're good at and focusing on becoming experts in specific niches. Don't diversify, he says: Specialize. "It's really just plain market forces," Kogan says. "When people want something, a service of any sort, they typically want the comfort level that goes with hiring an individual who's experienced with that service."

Kogan suggests that firms pick a handful of focus areas in which they've had market success. The trick is finding markets that are independently driven and that have economic cycles that counter or offset each other—office development and K–12 education, for instance. "I think that as much discipline as a firm can muster to stay focused on what they're best at, especially if they have their eggs in several strategically independent baskets, they'll do better in the long term," Kogan says.

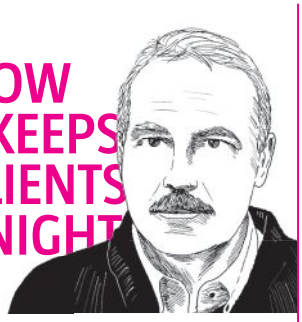
Michael E. Porter, a Harvard Business School professor, has studied some of the problems with diversification. In his book *On Competition*, he mentions that in a long-term study of 33 large U.S. corporations, diversification generally did not result in higher profitability or greater competitive advantage. The common problem identified in Porter's study is that companies simply aren't very good at strategizing their way across diverse markets.

Some architecture firms have embraced specialization, if somewhat reluctantly at first. The Boudreaux Group, a 38-year-old firm based in Columbia, S.C., had long seen itself as a generalist studio. But after a recent reorganization, the firm decided to narrow its focus. "We're in the early stages of making the transition from doing a little bit of everything, and trying to be all things to all people, to really defining what our core markets are," says Heather Mitchell, AIA, the firm's president. "We're trying to focus more on less."

That has meant favoring markets the firm excels in—higher education, religious facilities, municipal government—and abandoning growing sectors it has considered entering, such as healthcare. For a 17-person firm, Mitchell says, targeting a new market, even a thriving one, would take too much time and money. "It's a risk you have to take to get better and to be perceived as leaders in the markets you're trying to grow," Mitchell says. "But it is very hard to let go. I'm struggling with that."

Treanor Architects, an 80-person firm with offices in Kansas, Missouri, and Texas, has long based its practice around highly focused specializations. Dedicated teams of architects handle projects in different sectors: student life, science and technology, justice, and historic preservation. Dan Rowe, AIA, the company's president, says that such focus has helped his firm to establish credibility and dominance in the marketplace. He's found that to be seen as a leader in a specific market, architects need to know more than just how to design the building. They need to be able to think like their clients and understand their concerns. "We know what keeps them up at night," Rowe says.

WE KNOW WHAT KEEPS OUR CLIENTS UP AT NIGHT



DAN ROWE, PRESIDENT, TREANOR ARCHITECTS

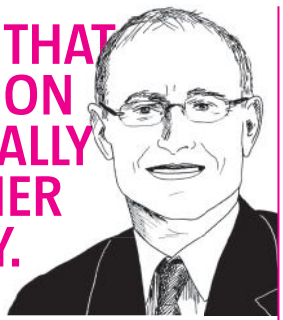
IDEALLY, ARCHITECTURE FIRMS SHOULD SPECIALIZE IN COUNTER-CYCLICAL MARKETS.

RAY KOGAN, PRESIDENT,
KOGAN & COMPANY

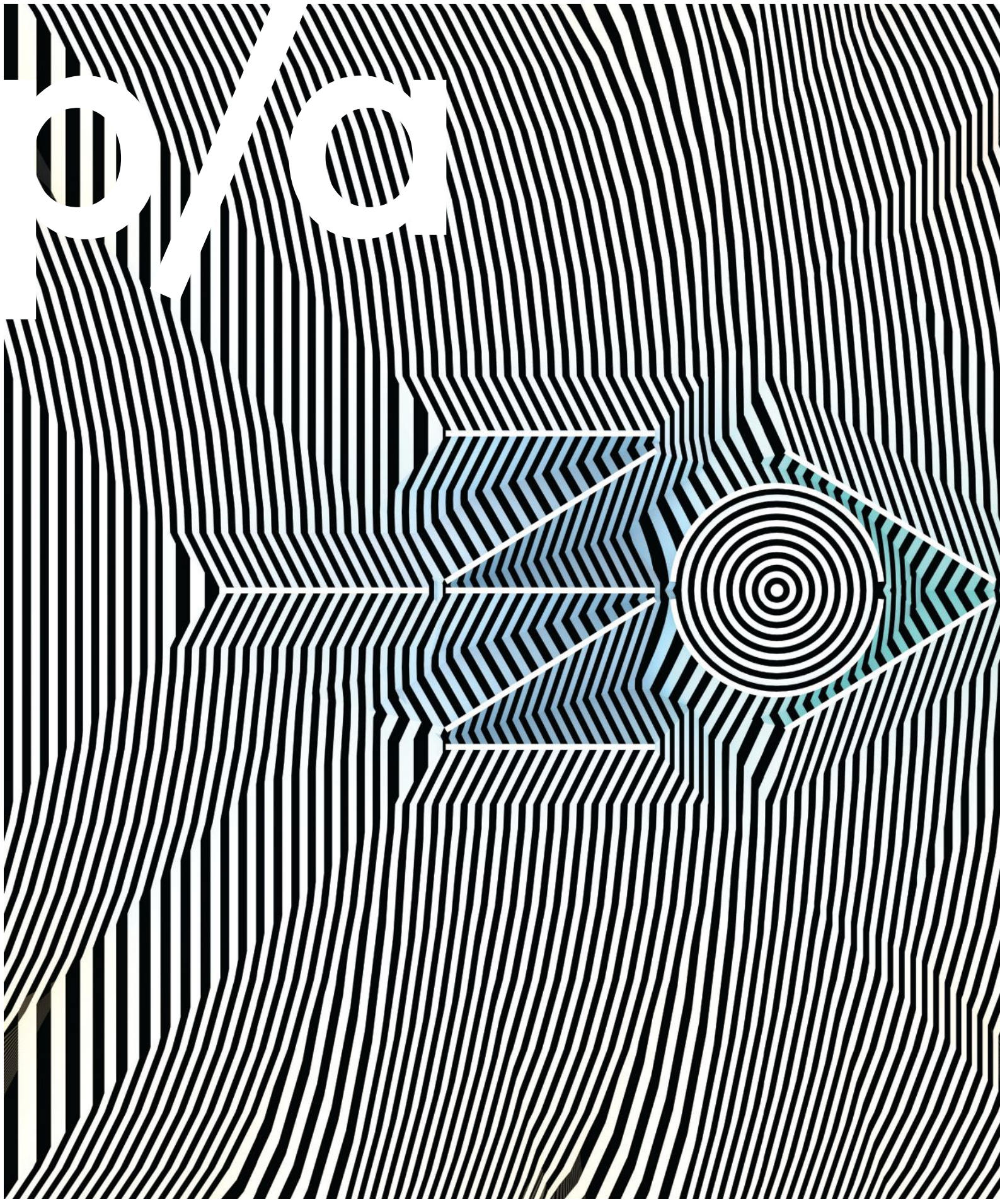
WE'RE TRYING TO FOCUS MORE ON LESS.

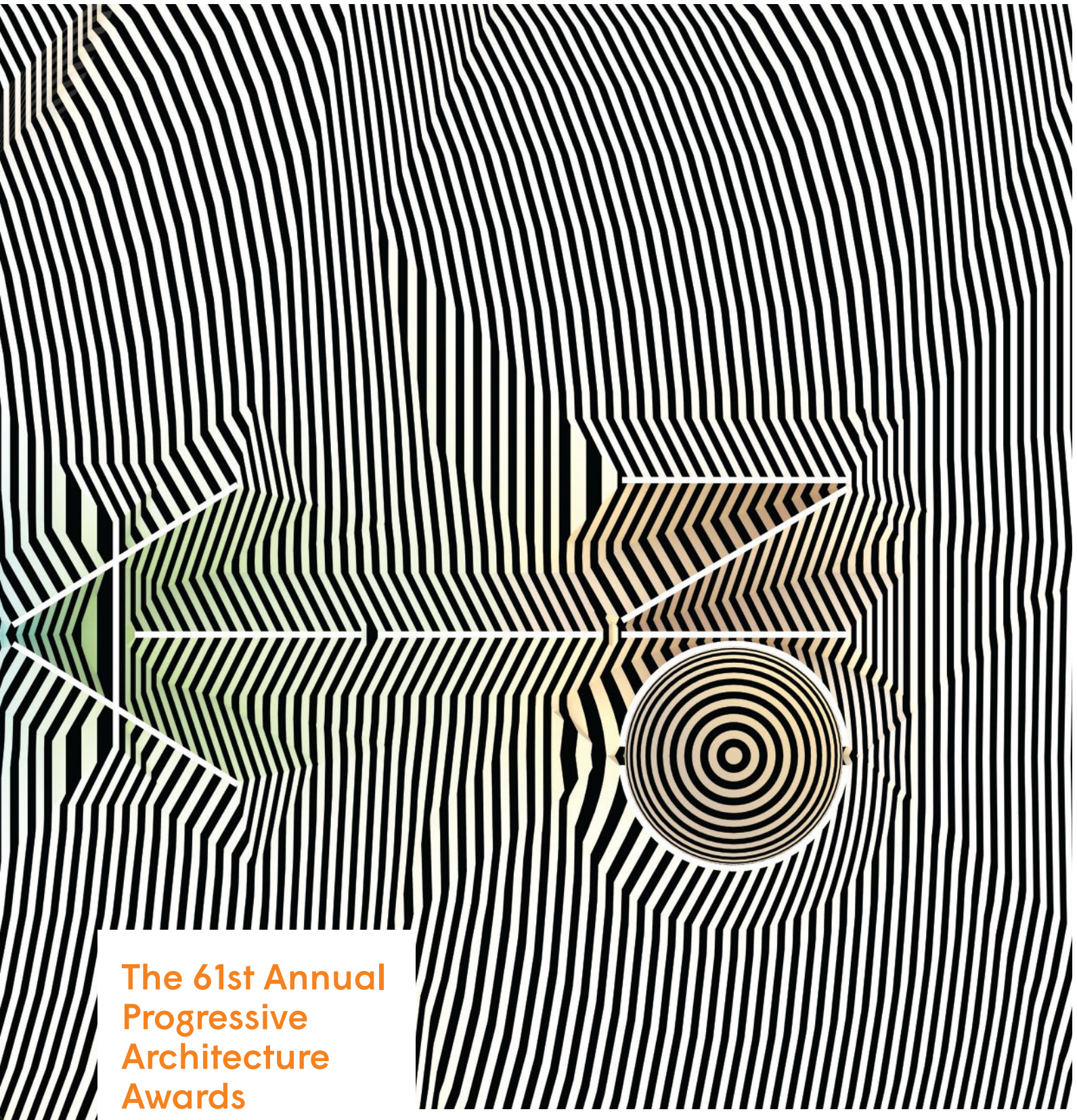
HEATHER MITCHELL, PRESIDENT,
THE BOUDREAUX GROUP

DATA SHOWS THAT DIVERSIFICATION DOESN'T USUALLY LEAD TO HIGHER PROFITABILITY.



MICHAEL E. PORTER, PROFESSOR,
HARVARD BUSINESS SCHOOL





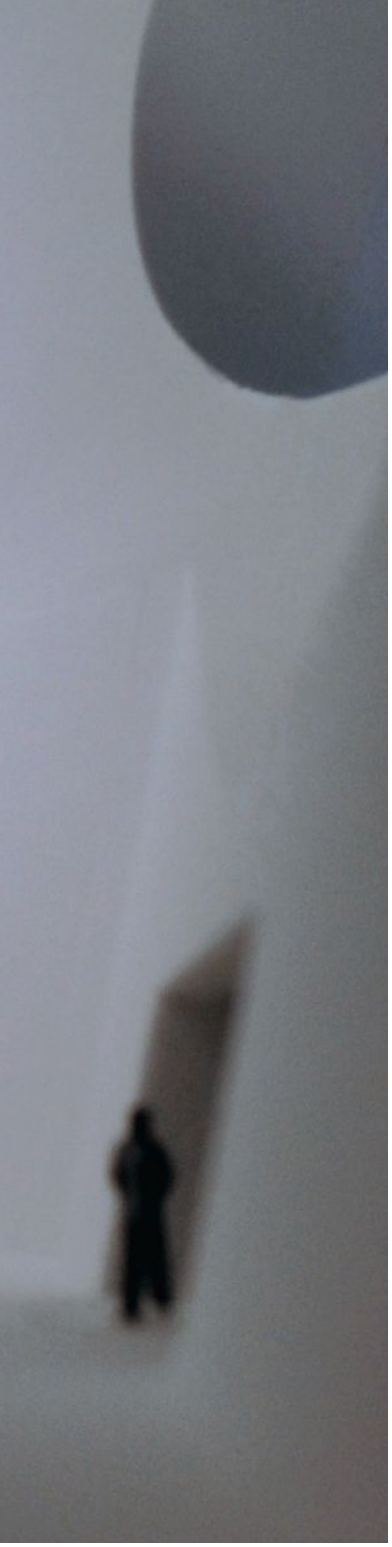
The 61st Annual Progressive Architecture Awards

Illustration by **Thirst**

Just what is it that makes this year's winners so different, so appealing? Jurors Lise Anne Couture, AIA, Nataly Gattegno, Sasa Radulovic, and Marcelo Spina, Intl. Assoc. AIA, focused on innovation, but not for its own sake. Out of more than 150 submissions, the jurors recognized 10 projects, each of them "able to achieve its potential," as Couture put it. More specifically, what won over the jury was a holistic approach to design with an eye toward practical realization. KATIE GERFEN

View of the model, showing the entry hall of the Planning Museum.

COURTESY STEVEN HOLL ARCHITECTS



FIRST AWARD

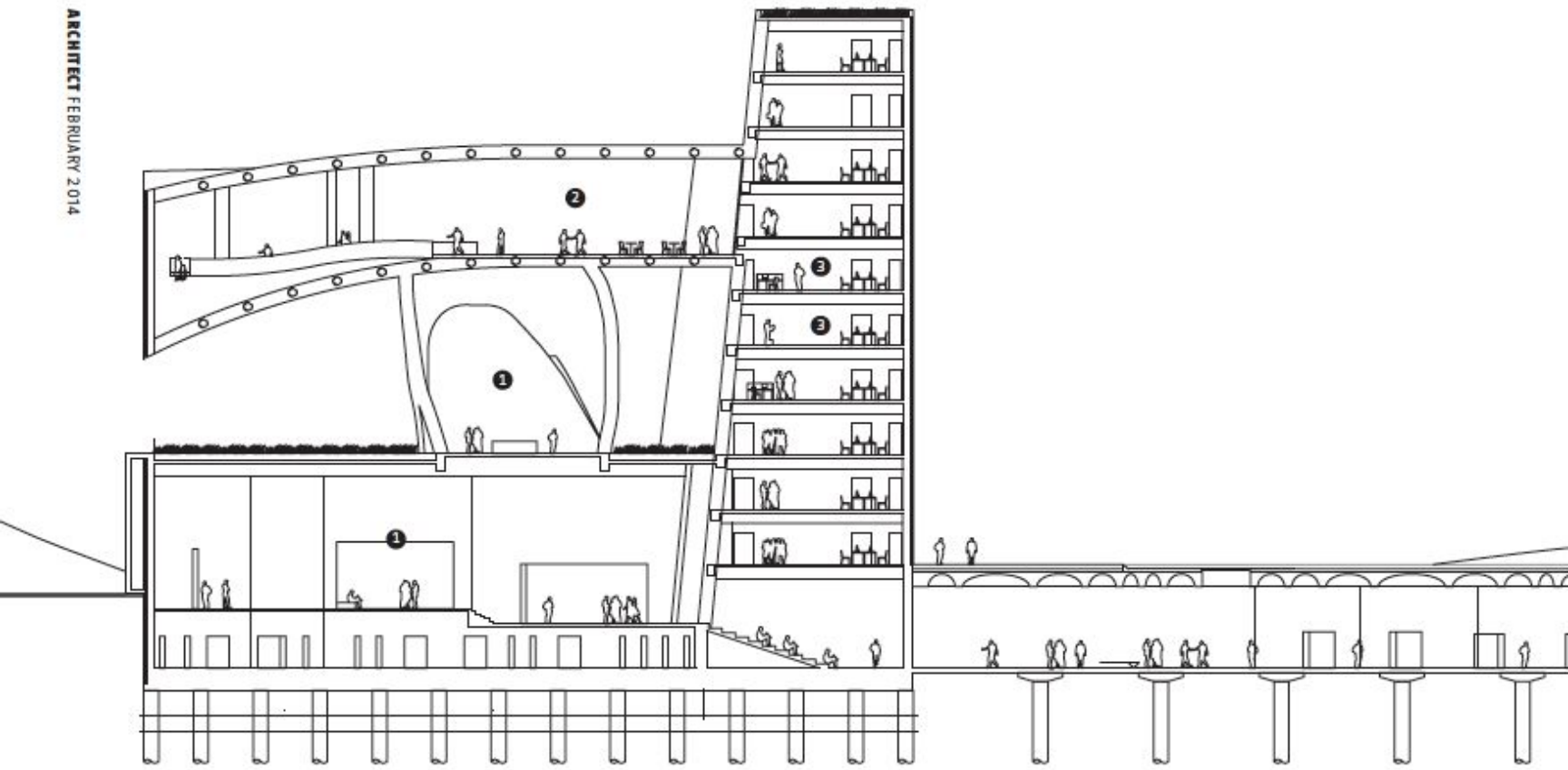
Tianjin EcoCity Ecology and Planning Museums

STEVEN HOLL ARCHITECTS

TIANJIN, CHINA

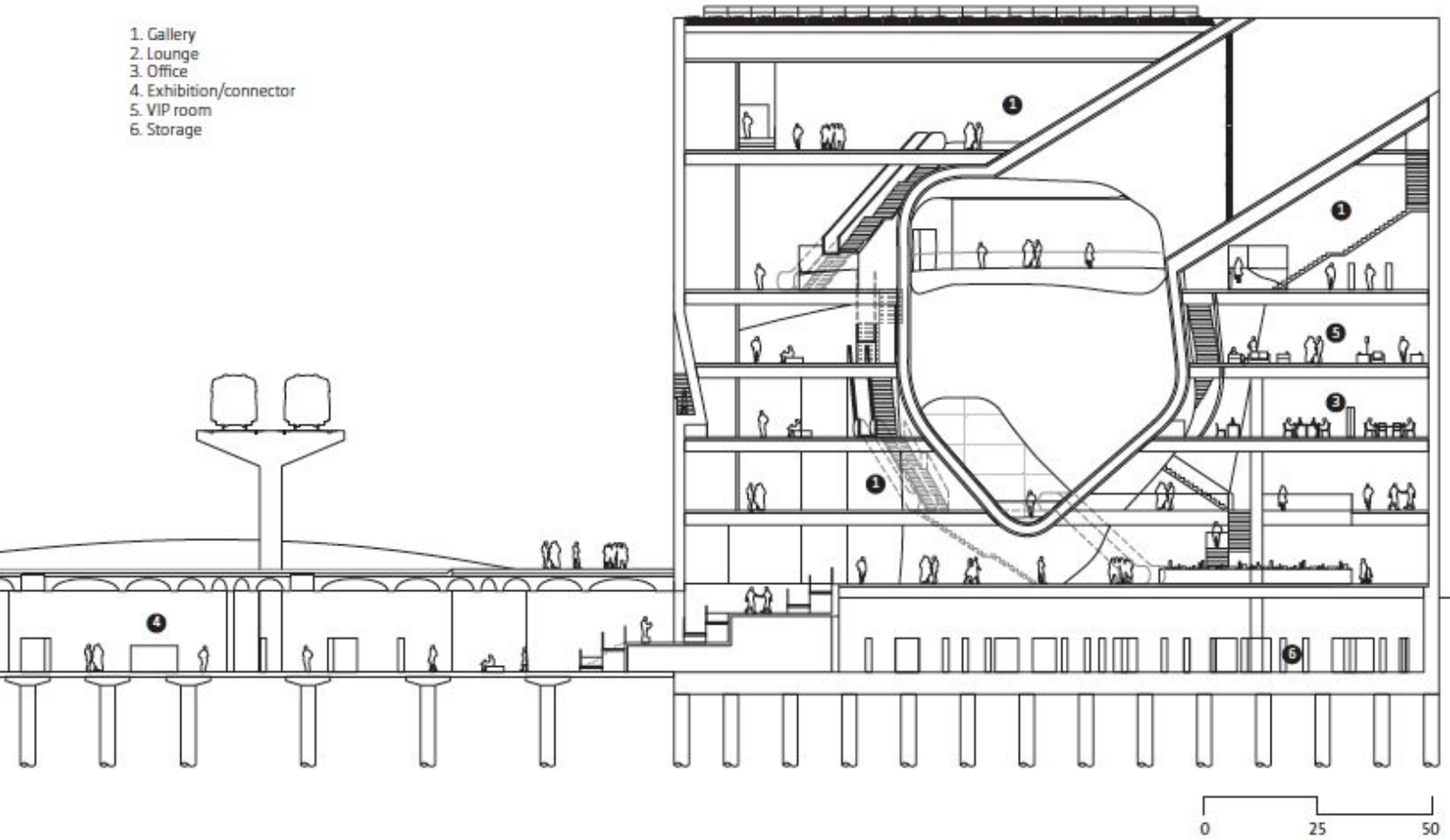
The governments of Singapore and China are partnering to build a new eco-city for 350,000 on a reclaimed salt pan and polluted tidal flats in Tianjin (approximately 80 miles from Beijing), in order to demonstrate sustainable best practices. Anchoring opposite sides of a plaza, the Ecology and Planning museums, which (at 215,278 square feet apiece) incorporate exhibition spaces, offices, a public plaza, event spaces, and a café, are the first elements that will be built in the cultural district. One museum is a rectangular volume with large voids that appear to be carved away; the other, more sculptural form represents the collective spaces subtracted from the first. Inside and out, the design approach yields a variety of heroic, irregularly shaped spaces. In the curvilinear Ecology Museum, visitors spiral upward along a ramp that traces the edge of a large atrium. The rectilinear Planning Museum—with an exterior shear wall made of bamboo-formed concrete—tells the story of the city's formation. "It has a strong identity and it's compositionally interesting," juror Lise Anne Couture said. "There's coherence between the interior and the exterior, and between one interior space and another." **VERNON MAYS**

West–East Section Through the Ecology and Planning Museums



COURTESY STEVEN HOLL ARCHITECTS

1. Gallery
2. Lounge
3. Office
4. Exhibition/connector
5. VIP room
6. Storage



Opposite: View from the northwest, showing the Ecology Museum in the foreground and the Planning Museum in the background. **Right:** View of the model, showing the Planning Museum's south façade, looking into the central atrium.

AWARD

Kaohsiung Port Terminal

RUR ARCHITECTURE

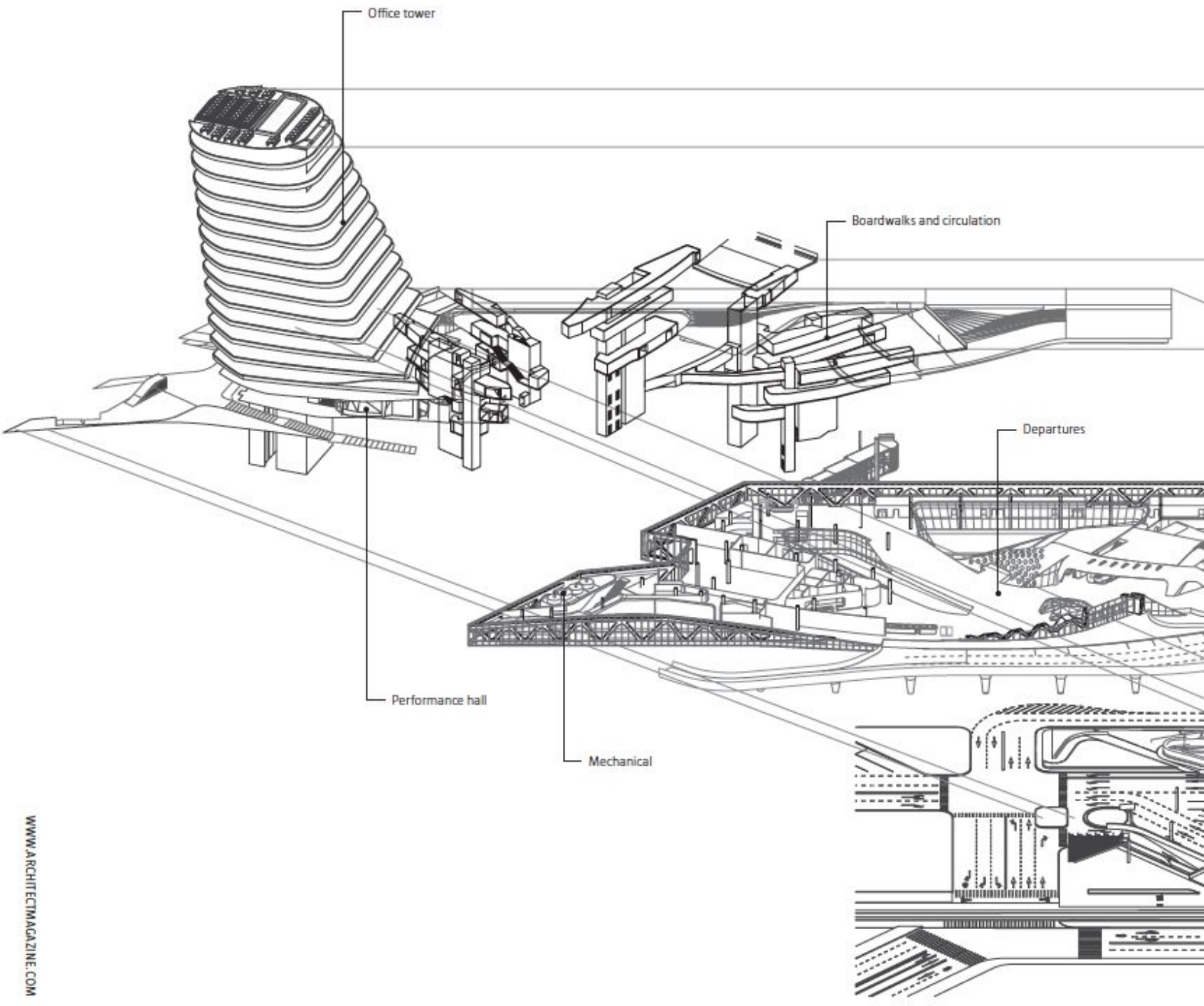
KAOHSIUNG, TAIWAN

The Kaohsiung Port Terminal may appear to belong to the universe of luxury cruise liners—think the webbed, almost skeletal superyacht that Zaha Hadid Architects has designed for shipbuilders Blohm+Voss—but this port is not part of that realm, at least not architecturally. A distinction must be made for the populism and urbanism that New York–based RUR Architecture evokes with the port's plan. Sited laterally with respect to the city grid and positioned close to public transit, the terminal accommodates pedestrian traffic via a continuous, elevated public promenade that parallels the waterfront. The public programming for the project, which includes a conference hall as well as retail and office space, rises from the central plinth; there, these functions intersect laterally with the transit and service-center operations of the terminal. "There's an interesting relationship that this building has as an object that is relatively separated from the ground," juror Marcelo Spina said. "I like that aspect of it, the idea that there is some kind of independence." **KRISTON CAPPS**

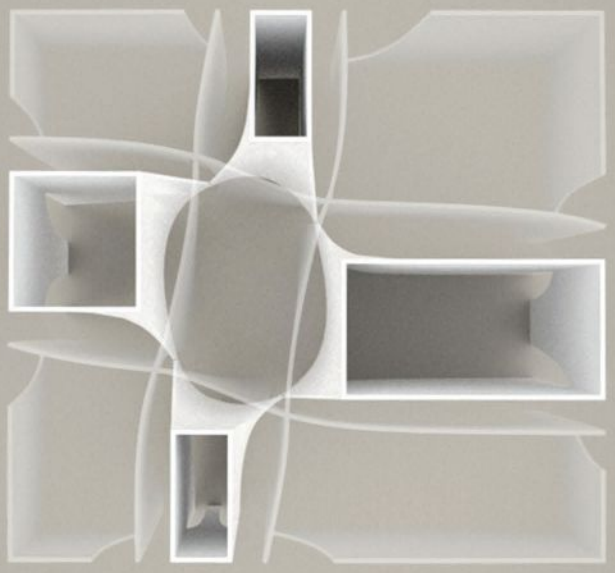
COURTESY RUR ARCHITECTURE

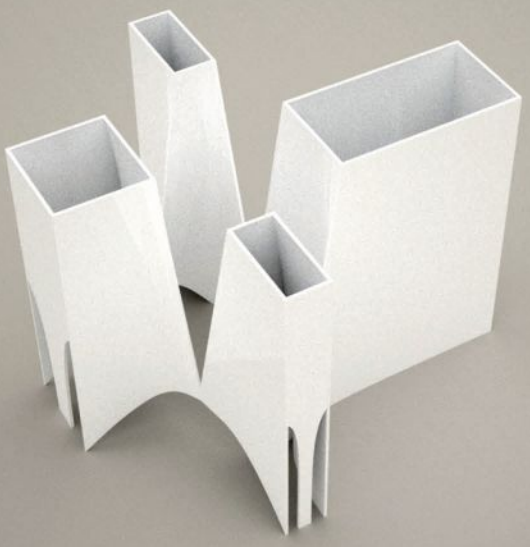
View of the model from the southwest, showing the infrastructure for cruise ship boarding.

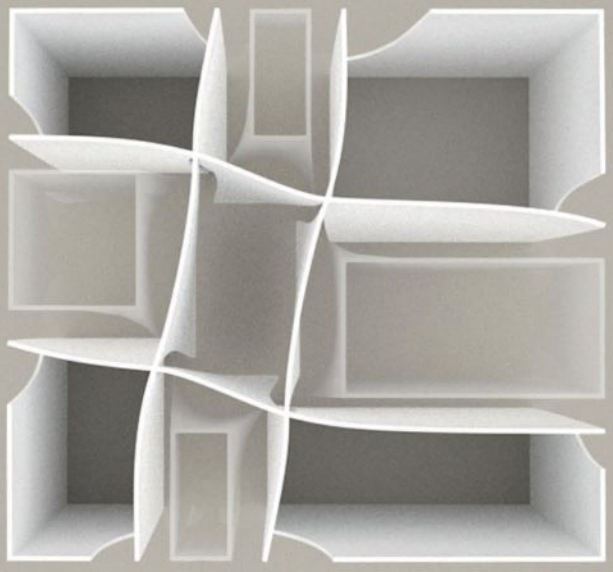
Exploded Axonometric Diagram

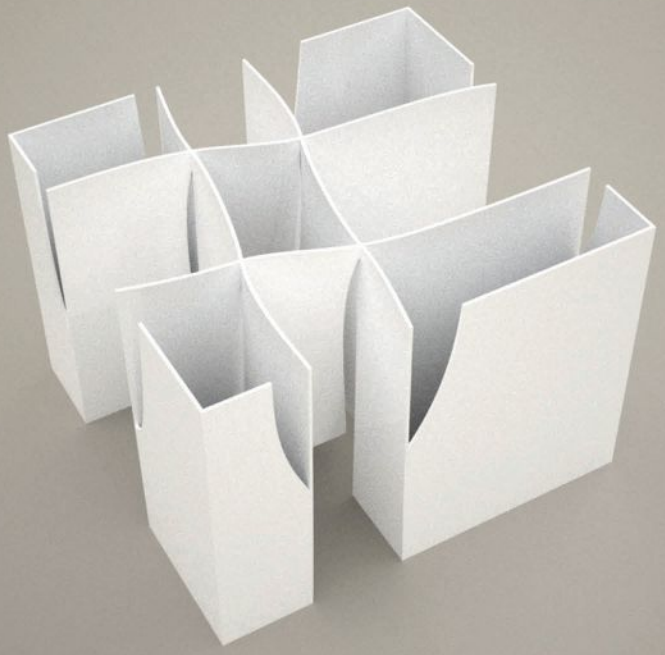


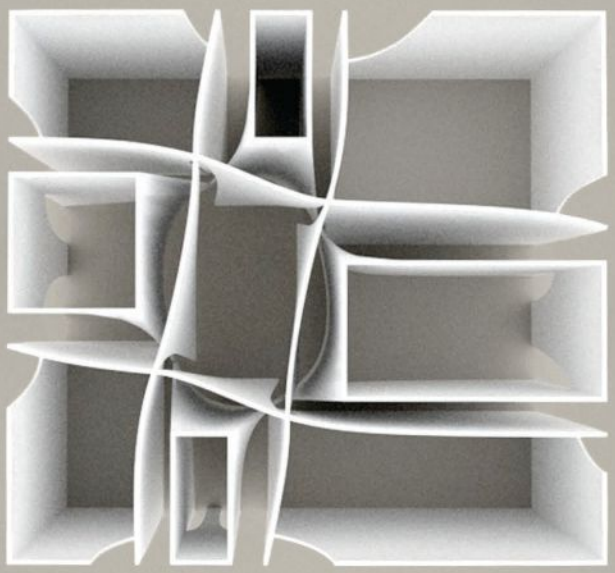
Security
Baggage claim
Arrivals

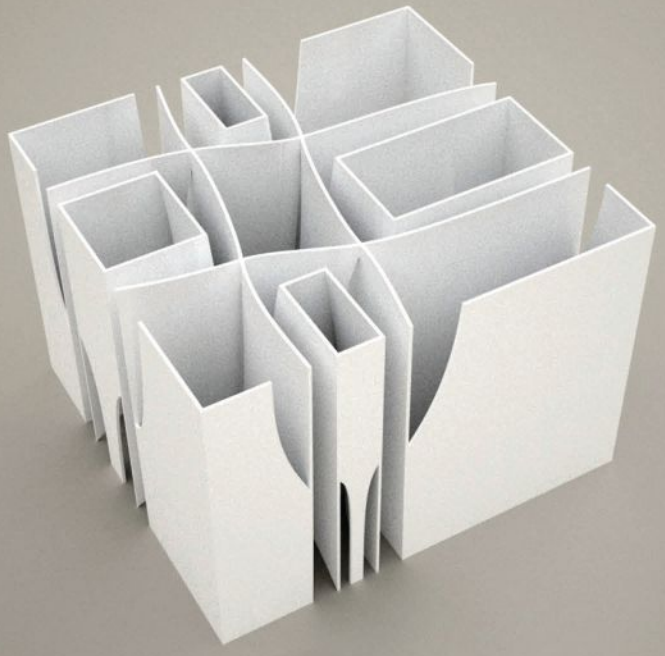












Opposite: Allied Works carried out a series of form and structure studies before finalizing the nine-tower plan. **Right:** A rendering shows a view of the ground-floor lobby.

AWARD

National Music Centre of Canada

ALLIED WORKS ARCHITECTURE

CALGARY, ALBERTA, CANADA

Portland, Ore.– and New York–based Allied Works Architecture won an international competition to convert an existing hotel, which dates to 1905, and an adjacent half-acre parcel in Calgary's East Village into a new music education, exhibition, and performance venue. The plan calls for the complete restoration of the King Edward Hotel, which houses one of Calgary's oldest music clubs, to its former glory. The new spaces are housed in a series of nine concrete-and-steel towers that are clad in terra-cotta and metal panels. The towers curve as they rise from the ground until they join in a canopy that arches over a city street. Juror Sasa Radulovic appreciated the project's "continuum of exploration between solid and void," as these spaces merge and form the larger 160,000-square-foot campus. New gallery spaces will display more than 2,000 objects representing Canada's musical heritage, and a new recording studio and radio station will occupy the towers adjacent to the restored hotel. But those hoping to reserve a room in the thick of the action at the National Music Centre will be disappointed—the hotel is being transformed not into guest rooms, but rather into apartments for artists-in-residence. KATIE GERFEN

COURTESY ALLIED WORKS ARCHITECTURE AND MARCH

MIR RENDERINGS

View from the south, showing an overview of the building's structure, including a bridge that spans both a city street and the restored King Edward Hotel.

View of the hexagonal façade from the southeast.

COURTESY ROJKIND ARQUITECTOS, RENDER BY GLESSNER GROUP

CITATION

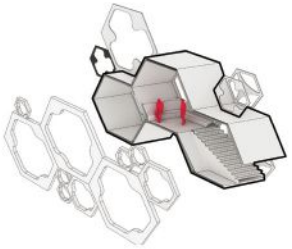
Liverpool Department Store - Insurgentes

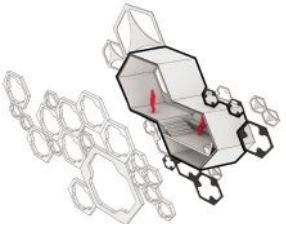
ROJKIND ARQUITECTOS

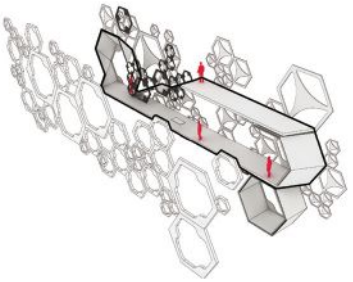
MEXICO CITY

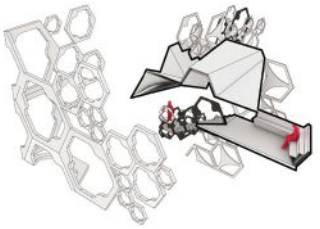
When Mexico City–based firm Rojkind Arquitectos was hired to design an expansion for a department store in its hometown, the architects were faced with a particularly urban type of challenge: The envelope of the existing structure would need to be drawn out to two busy streets teeming with foot traffic to meet increased program demands. The firm wanted to avoid imposing a solid wall at the busy sidewalk, but did not have any space to concede for plazas or other urban gestures. Rather than making the outer envelope as thin as possible, the architects thickened the façade and opened it up to the store program, dubbing it a "habitable façade." Juror Nataly Gattegno responded to this "thick, 3D façade," as she called it, which takes the form of a steel-framed aluminum-and-fiberglass honeycomb that provides space for program inside while animating the façade to those looking from the street. Rojkind Arquitectos was able to tailor these hexagonal façade cavities to different activities, including shopping, video projection, restaurant, and rest areas. Stairs and ramps allow shoppers to move throughout the building in the façade itself. JOHN GENDALL

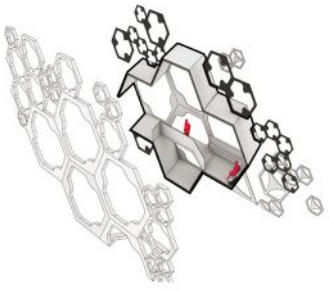
Façade Module Diagrams











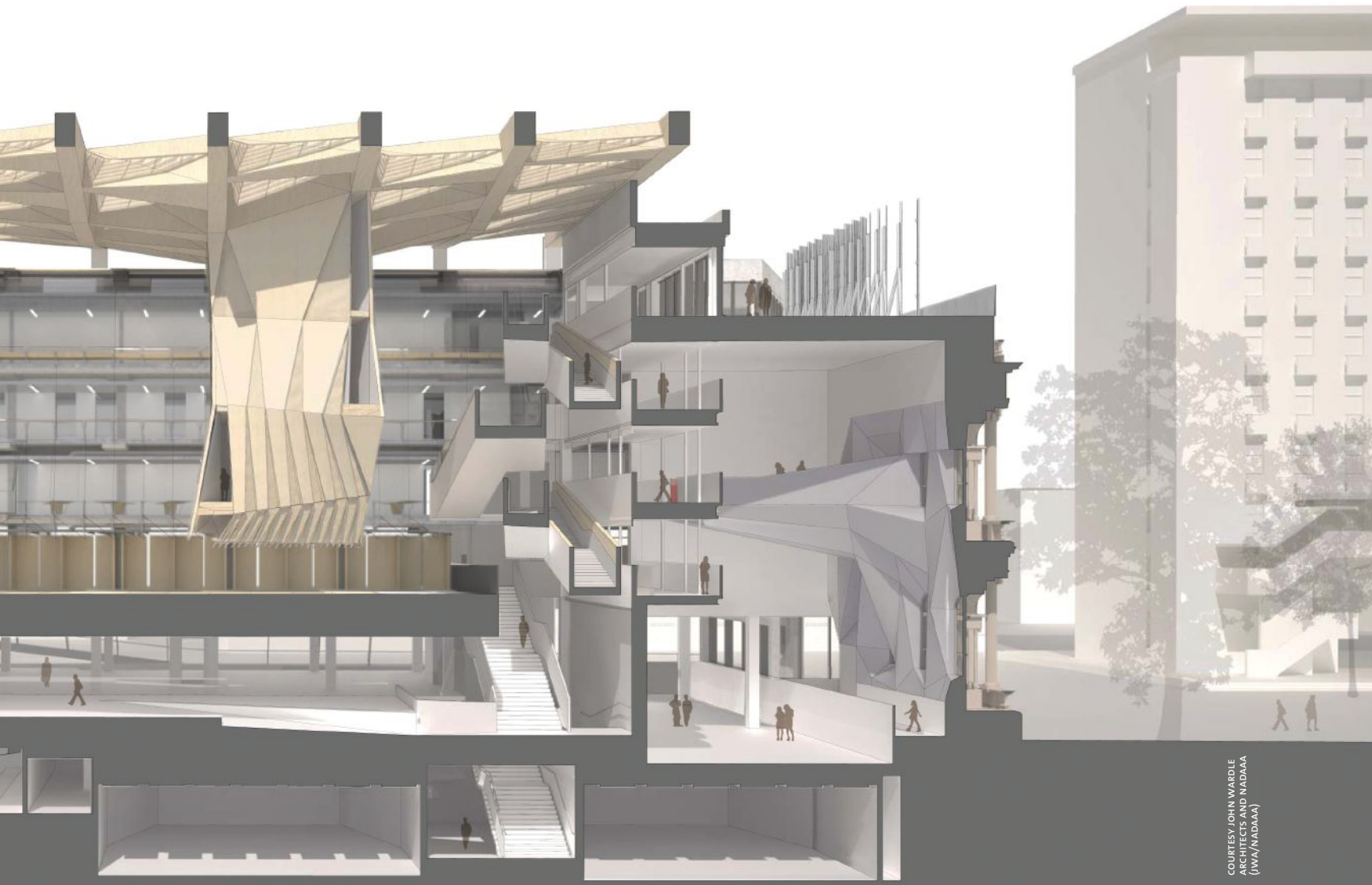
Faculty of Architecture, Building & Planning, University of Melbourne

JOHN WARDLE ARCHITECTS AND NADAAA IN COLLABORATION

MELBOURNE, AUSTRALIA

A pairing of firms from Collingwood, Australia, (John Wardle Architects) and Boston (NADAAA) won the international competition for this 170,000-square-foot design education building. At the center of the structure is a multipurpose studio hall rising four stories to a coffered canopy that provides natural light and ventilation. A sculptural construction suspended in this space houses visiting critics' studios. Students will not have assigned workspaces, but can instead choose to work in the central hall or along the metal-mesh-enclosed balconies that surround it, where a variety of tables, counters, and seating will be provided. A stone façade, retained from the building that formerly occupied the site, had already been recycled once, for that earlier structure, from a demolished bank. Exterior glazing is shaded by a variety of panels and fins in different configurations depending on solar exposure. Juror Lise Anne Couture noted the design intention to make the building "in and of itself a pedagogical tool." JOHN MORRIS DIXON, FAIA

East–west section showing the central atrium and the hanging studio construct.



COURTESY JOHN WARDLE ARCHITECTS AND NADAAA (JWA/NADAAA)

View of the model from the northeast, over an outdoor playing field and seating, and into the indoor soccer pavilion.

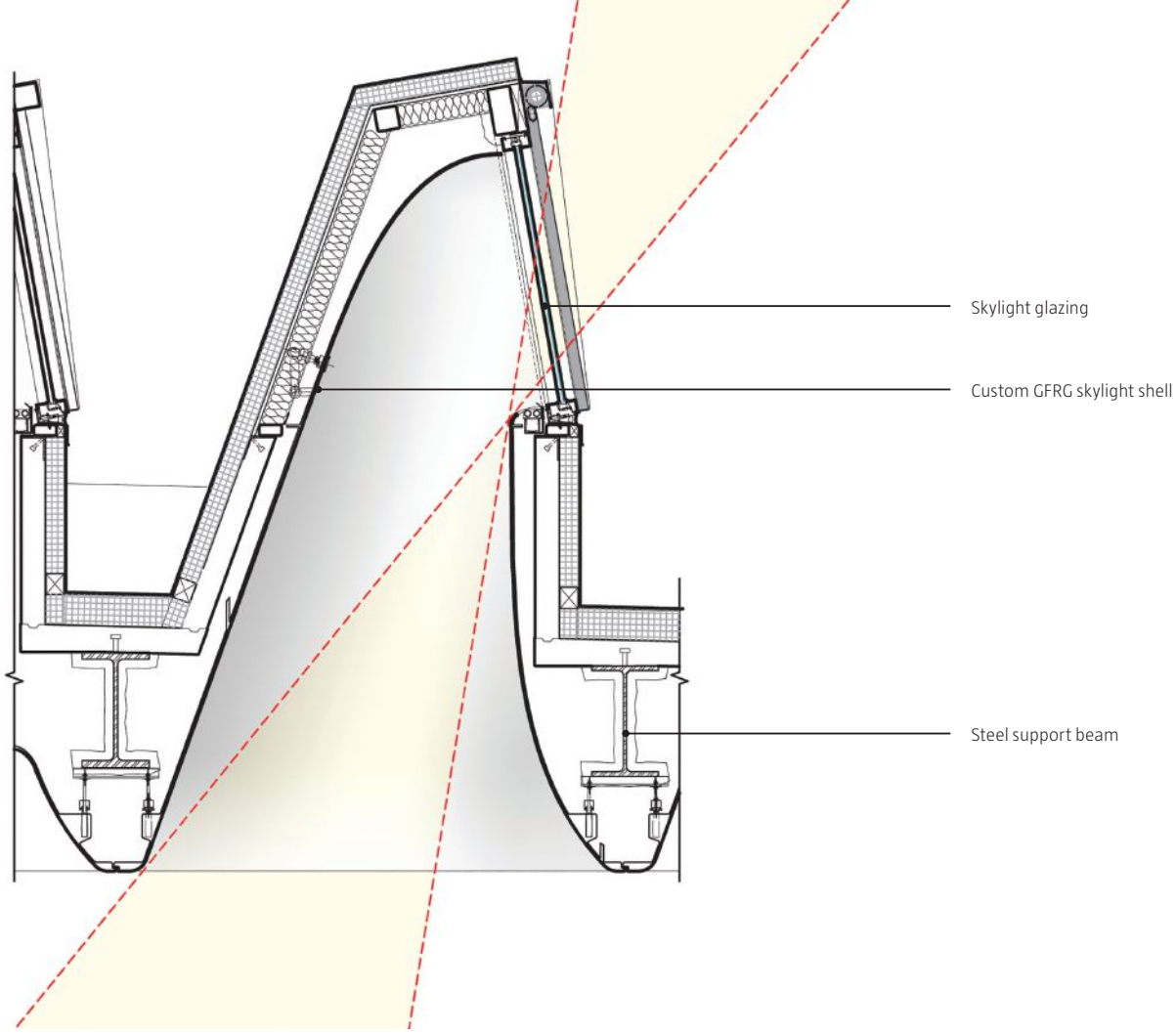
Soccer Centre at St. Michel Environmental Complex

SAUCIER + PERROTTE ARCHITECTES/ HUGHES CONDON MARLER ARCHITECTS

MONTREAL

OLIVIER BLOUIN

On a flat parcel in Montreal, located between an urban thoroughfare and the historic Miron Quarry (which is now being converted to an ecology park), Saucier + Perrotte Architectes and Hughes Condon Marler Architects have designed a 136,000-square-foot enclosed soccer field, with an entrance hall, bleacher seating, training rooms, locker rooms, offices, and a café. Conceived as an added layer of mineral stratum recalling the site's geology, the center features a continuous roof that cantilevers over the entrance plaza, folds down over the playing field, and then extends to the ground to seat spectators for a second, outdoor field. The highlight of the project is the laminated wood structure supporting the roof. Its crossing beams form a seemingly irrational lattice, but the structural grid is denser precisely over those zones where added strength is needed. The center's sustainable aspects, including the use of geothermal energy in frigid Quebec, ultimately won the jury over. "And I like the idea of the roof folding into the grandstands," juror Sasa Radulovic said. "This is a mundane program that usually results in a shed or prefabricated building, but somehow they figured out a different way." **V.M.**



The Broad

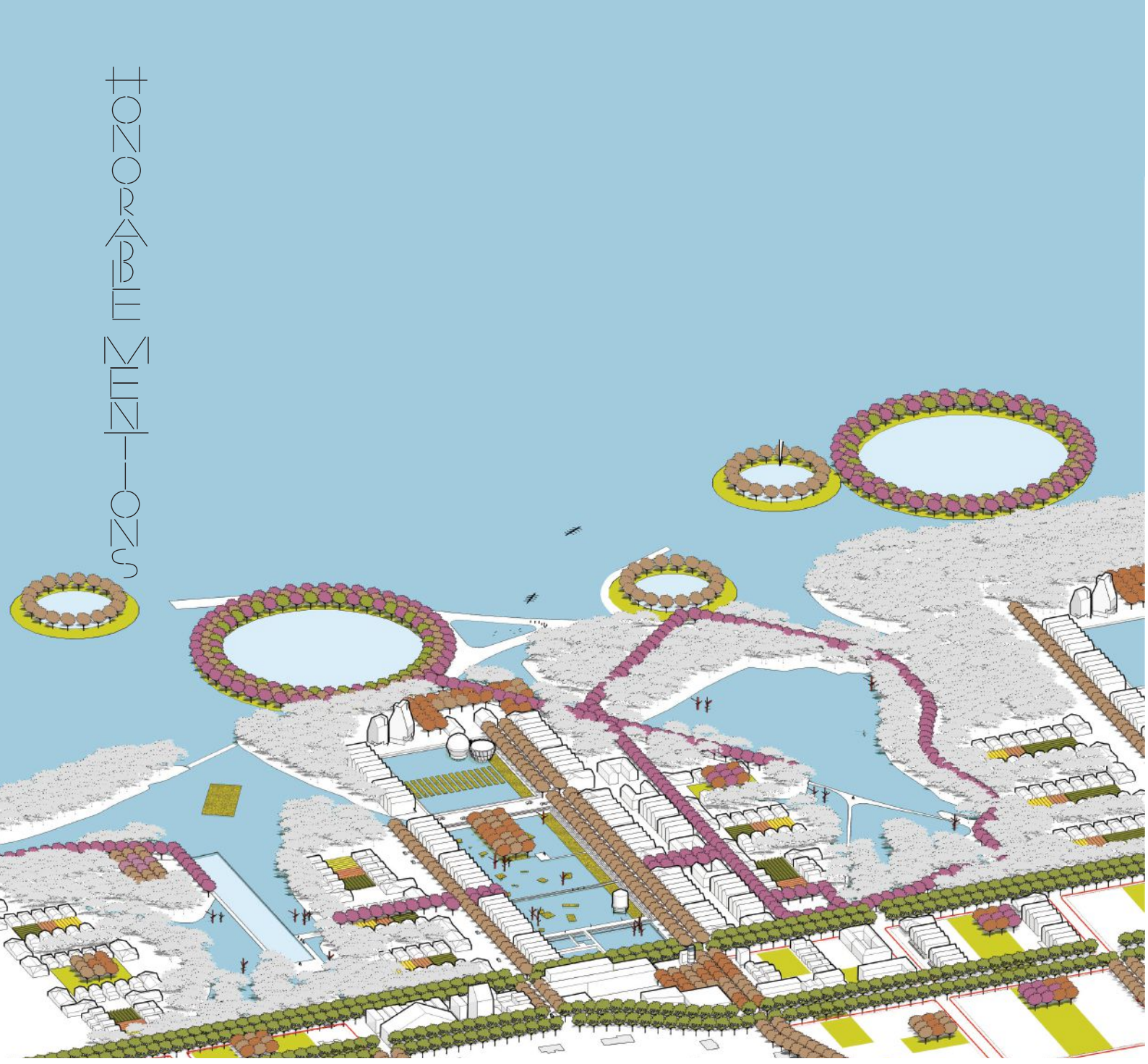
DILLER SCOFIDIO + RENFRO IN COLLABORATION WITH GENSLER

LOS ANGELES

Set in the cultural district along the City of Angels' Grand Avenue, just south of Gehry Partners' Walt Disney Concert Hall, the building accommodates two programs of the Broad Art Foundation. Its two-fold function—public exhibition space and an art archive supporting its lending activities—is manifested in a "veil and vault" design concept. The vault is an opaque mass hovering in the heart of the block-long structure; the veil is a cellular exoskeleton enveloping the surrounding volume, lifted at two corners to welcome the public. From the lobby, visitors are funneled upward on an escalator to an acre-sized, column-free gallery lit by diffuse light from the skylight-pierced roof. The return to the lobby is down a twisting stair that offers views into the vault's holdings. A "pucker" on the avenue front draws a portion of the cellular envelope inward to the foundation's conference room. Juror Nataly Gattegno cited the "interesting material explorations" of that envelope, which is constructed principally of glass-fiber-reinforced concrete. **J.M.D.**

View of the east corner entrance, showing the perforated concrete cladding and the "pucker" along Grant Avenue that marks a conference room.

COURTESY DILLER SCOFIDIO + RENFRO



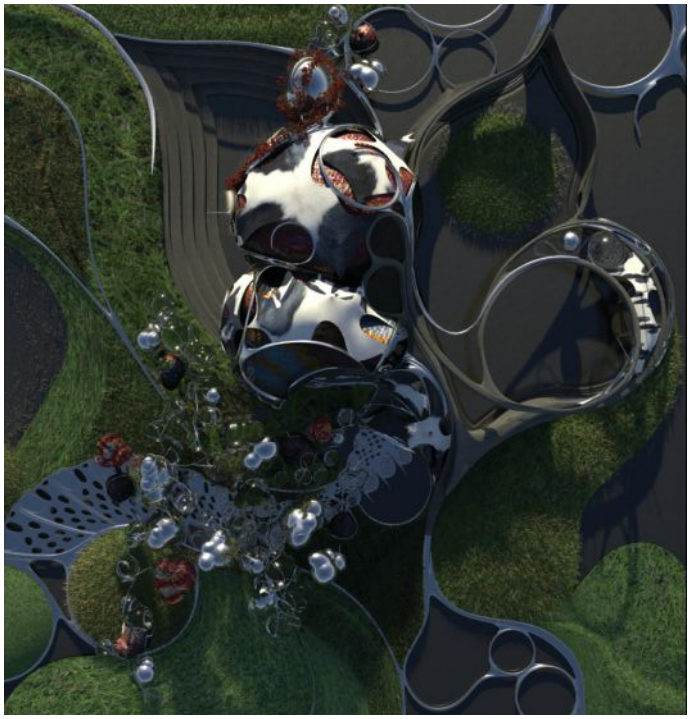
Fayetteville 2030: Food City Scenario

UNIVERSITY OF ARKANSAS COMMUNITY DESIGN CENTER

FAYETTEVILLE, ARK.

Fayetteville, Ark., faces conflicting food fortunes. On one hand, the state is impressively productive (second in chicken production, third in turkey and catfish, and home to food giants Tyson Foods and Walmart). "Fayetteville is in one of the state's most prosperous regions," juror Sasa Radulovic said, "but it also has the highest rate of childhood hunger in the U.S." As a way to reconcile this disparity, the University of Arkansas Community Design Center (UACDC) came up with Fayetteville 2030, a set of planning guidelines that would introduce urban agriculture at scales that benefit local communities. The plan would complement the city's growth projections by including a food-production program into yet-to-be developed land, merging agriculture with infrastructure, transportation, and housing. Strategies would include community gardens, composting networks, greenhouses, aquaculture facilities, and edible parks. Unlike the larger-scale industrial food production that ships food out of Arkansas, Fayetteville 2030 would distribute crops locally through exchanges, hubs, and markets. UACDC conceived the plan in such a way that it would meet other municipal objectives, too, including economic development, energy conservation, and resilience. J.G.

COURTESY UNIVERISTY OF ARKANSAS COMMUNITY DESIGN CENTER

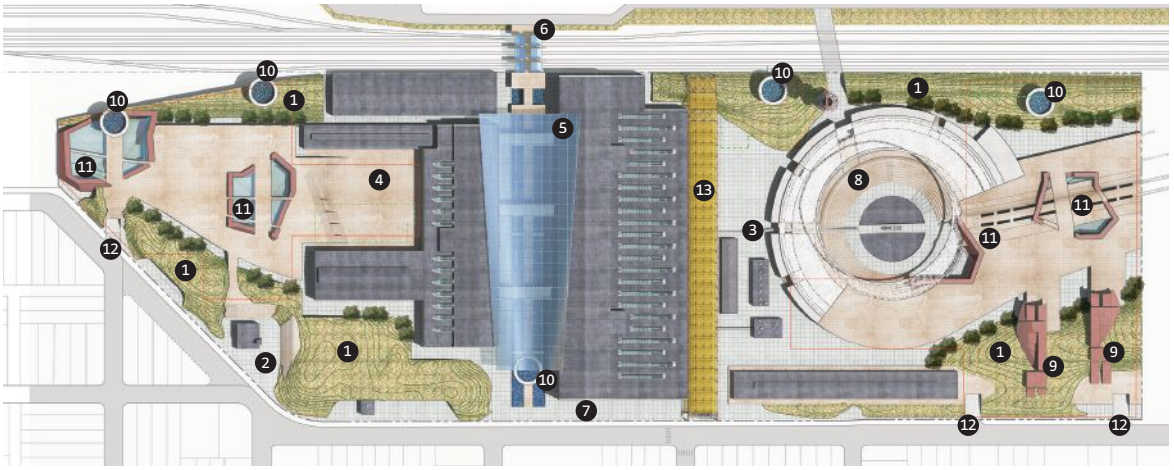


TBA 21

XEFIROTARCH/HERNAN DIAZ ALONSO

PATAGONIA, ARGENTINA

"Irritant" and "inhospitable" were among the words used by jury members to describe this cultural pavilion in Patagonia. No doubt, its designers wouldn't have it any other way. Framed as a rejection of types and typology in favor of a broader "species" framework, TBA 21 would seem to be informed by bovinae: Segments of the pavilion's spheroid metallic units are draped in cowhide, while others appear to be clad in slabs of beef. The 2,000-square-foot structure occupies an almost confrontational posture vis-à-vis the gaucho, the traditional Patagonian grassland rancher who would seem bound by geography to interact with this remote agrarian architecture the most. To be sure, the embrace of mechanized slaughter as a design scheme is hardly the only confrontational element of Los Angeles–based Xefirotarch's design. The landscape planning surrounding the pavilion employs island or oceanic forms, again framed in steel and defying the logic of the broader grass-steppe ecoregion. Bulbous trees of metal, cowhide, and glass emerge from a broad amphitheater. "What's missing from it and yet what is so much in your face is the materiality," juror Lise Anne Couture said. "It's camouflaging the massing instability issues." K.C.



1. Acoustic mound
2. Café
3. Plaza
4. Quadrangle
5. Glass canopy
6. Retail bridge
7. Transit plaza
8. Amphitheater
9. Workforce housing
10. Cistern
11. Courtyard
12. Parking access
13. Market

Albuquerque Rail Yards Master Plan

ERIC OWEN MOSS ARCHITECTS

ALBUQUERQUE, N.M.

If you've seen *The Avengers* (2012), you have seen the long-defunct railyards in the Barelas neighborhood just south of Downtown Albuquerque, N.M. Once a service yard for the Atchison, Topeka and Santa Fe Railway, the 27.3-acre site houses shops that date back to the early 20th century, and that became defunct when the railroad left the site in 1970. It has since been used for a filming location and event space, but Culver City, Calif.–based Eric Owen Moss Architects is now spearheading a master plan to convert the site into a mixed-use development with office and cultural spaces as well as retail, light commercial facilities, and workforce housing. Existing steel-framed buildings will be adaptively reused where possible, and supplemented with new construction. An arcing glass canopy, for instance, will cover a walkway that bisects the site. Public plazas, walkways, and courtyards will connect the various venues. Though the jurors wished elements of the plan were more developed as they were making their assessments, ultimately, "it has to do with strategy," juror Marcelo Spina said. "If you think about the shed buildings and how those get integrated back into the grid, they produce many types of public space." K.G.

TOP: COURTESY XEFIROTARCH; BOTTOM: COURTESY ERIC OWEN MOSS ARCHITECTS

Judges

NATALY GATTEGNO

Gattegno received her M.Arch. from Princeton University. She is co-founder and managing partner at Future Cities Lab, a San Francisco–based firm focused on experimental design. In addition to being an associate professor of architecture at the California College of the Arts, Gattegno is also chair of the school's graduate program in architecture.

MARCELO SPINA, INTL. ASSOC. AIA

Spina earned his M.Arch. from Columbia University before working with Reiser+Umemoto and Keller Easterling in New York. He has since migrated to Los Angeles and opened his own firm, P-A-T-T-E-R-N-S, with partner Georgina Huljich. He now teaches graduate studios and seminars at the Southern California Institute of Architecture.

LISE ANNE COUTURE, AIA

Couture earned her M.Arch. from Yale University. She is a managing partner of Asymptote Architecture, the New York–based firm that she co-founded with Hani Rashid, and currently she serves as associate professor at Columbia University's Graduate School of Architecture, Planning, and Preservation.

SASA RADULOVIC

Radulovic received his M.Arch. at the University of Manitoba, and is co-founder of Winnipeg, Manitoba, Canada–based 5468796 Architecture with Johanna Hurme. The firm collaborated with designer Jae-Sung Chon on the Canadian pavilion at the 2012 Venice Architecture Biennale.

DANIEL BEDELL

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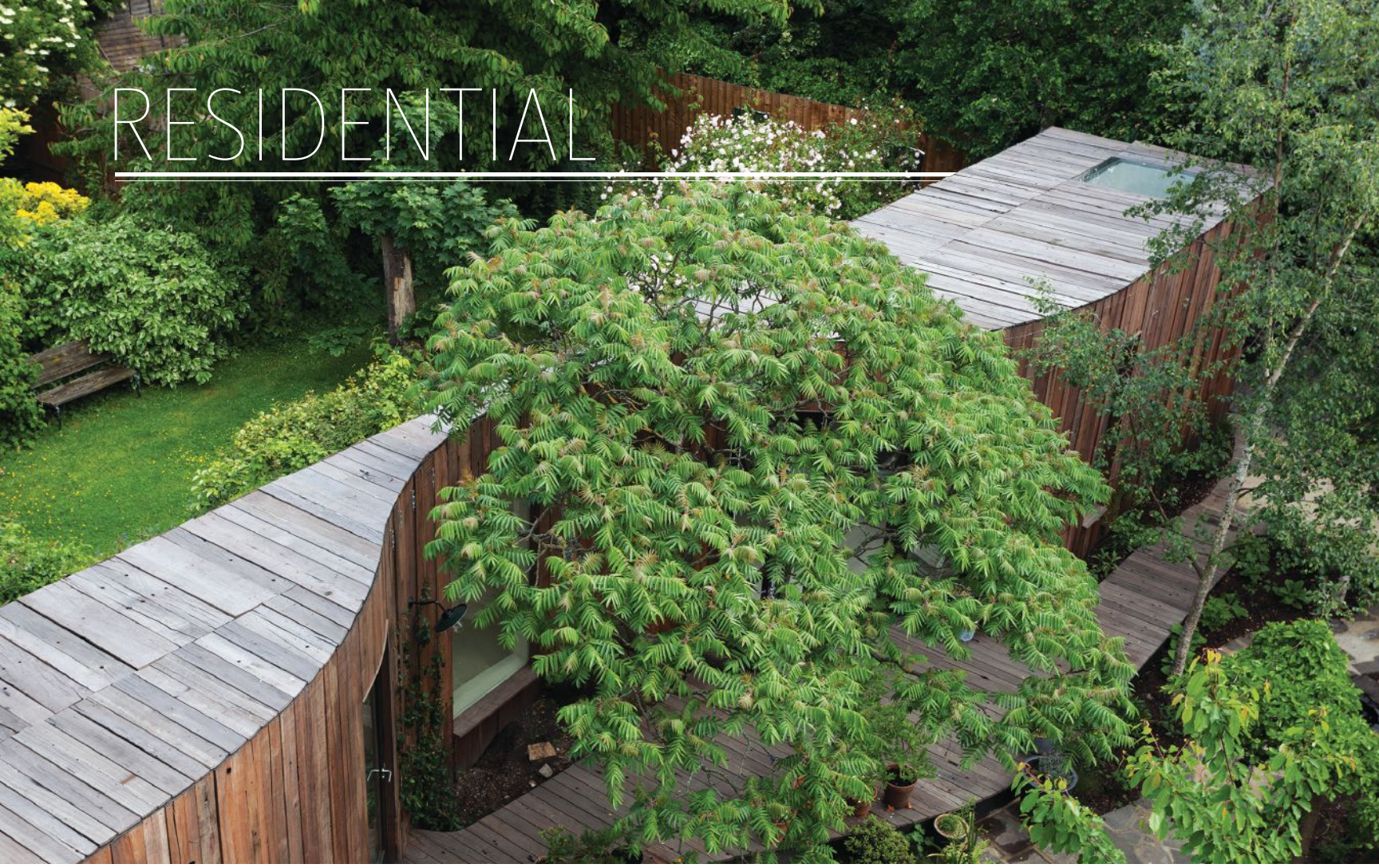


Tree House

LONDON-BASED 6A ARCHITECTS HAS AUGMENTED A PAIR OF 1830S LONDON WEAVERS' COTTAGES WITH A CURVACEOUS, AND ACCESSIBLE, GARDEN ADDITION FOR ARCHITECTURE CRITIC ROWAN MOORE AND FAMILY.

Text by **Katie Gerfen**
Photos by **Johan Dehlin**

IN THE LONDON borough of Tower Hamlets, east of the bustling city, a pair of historic weavers' cottages conceals an unlikely addition: A sweeping glass-enclosed ramp that culminates in a curving, timber-clad volume that deftly navigates the existing garden landscape. Designed for *The Guardian* architecture critic Rowan Moore and his family, the addition was intended "to make the house as accessible as possible," says Stephanie Macdonald, a director of London-based 6a Architects. Moore's wife Lizzie has multiple sclerosis, and was spending more and more time in her wheelchair as the renovation process began. "I don't think she realized how trapped she'd become in one room," Macdonald says.

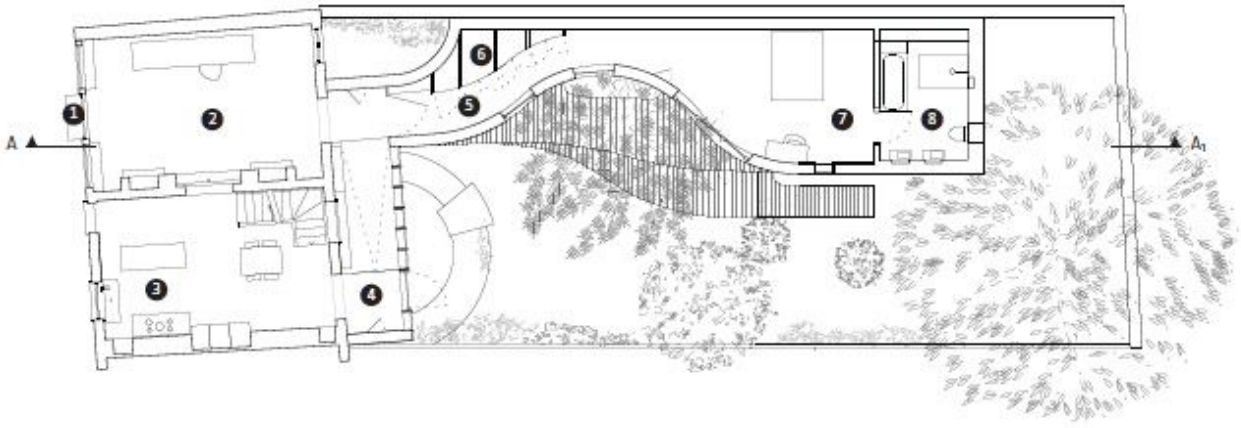
As it stood, the house was not easily navigable in a wheelchair: The two weavers' cottages were combined into one dwelling in the 1970s, but they were not originally built at the same level, requiring stairs to get from one to the other. A veranda built in the 1980s, which was also accessible only via stairs, connected the two structures, and offered views of the back garden a half-story below.

Under the circumstances, finding a solution for a typical client would be challenging. Doing so for an architecture critic is downright daunting, but MacDonald was not deterred. "It just meant that we could have a great conversation about it, and that he was really engaged and involved in the details," she says. "We tend to find with clients that the stronger their opinions, the better the project." Here, opinions were in no short supply: In addition to making the house and garden accessible, the clients wanted to highlight their lush plantings and preserve old-growth trees.

Macdonald and her team responded by creating a glass-enclosed ramp that connects the two existing weavers' cottages and slopes down into the garden below. Perpendicular to the ramp, a long and narrow wood structure is clad in reclaimed jarrah timbers—"they were quite old gnarly pieces of wood," Macdonald says, "our contractor stitched them together"—dipping around an existing sumac tree, skirting past a mulberry and a birch tree, and stopping just short of a looming eucalyptus.

Inside, wood also was used to clad the doors, ceilings, and walls, and all the surfaces were painted white to enhance the daylight that pours through the south-facing windows. The curving hallway culminates in a bathroom and master bedroom, where, MacDonald explains, "you can lie in bed and look out into the garden and see what is going on, bringing the garden inside and making it more present in the internal spaces." And best of all, she adds, "now [Lizzie] can get outside whenever she wants."

First-Floor Plan



1. Entrance
2. Living room
3. Kitchen
4. Glazed, ramped veranda
5. Ramp
6. Storage
7. Bedroom
8. Bathroom

0 8 16 N

Previous Spread: Driven by a mandate to preserve an old-growth sumac tree in the rear garden, the architects created a curved reclaimed timber-clad addition that left the root structure undisturbed. **Left:** Large windows overlook the deck built around the sumac tree and allow natural light to flood the interior. **Above:** Looking back past the addition, the new glazed ramp that was added to the back of the two existing cottages. Because the property has a Grade II historic listing, all changes to the structure had to be designed to be reversible.

A–A1 Section

The interior of the timber-frame addition is also clad floor-to-ceiling in wood. The panels are painted white to maximize the daylight that enters through the south-facing windows. This hallway leads from a new bedroom suite back to the glazed ramp and historic cottages.

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FIRST AWARD

Tianjin EcoCity Ecology and Planning Museums, page 80

Project Tianjin EcoCity Ecology and Planning Museums, Tianjin, China
Client Sino-Singapore Tianjin Eco-City Administrative
Architect Steven Holl Architects, New York—Steven Holl, FAIA (design architect); Roberto Bannura (director-in-charge); Garrick Ambrose, Yu-Ju Lin, Michael Rusch (project architects); Laetitia Buchter, Bell Ying Yu Cai, Xi Chen, Romeo Chang, Deng Ming Cong, Rychiee Espinosa, Nathalie Frankowski, Annie Kountz, Magdalena Naydekova, Elise Riley, Yun Shi, Wenying Sun, Yasmin Vobis, Manta Weihermann (project team)
Associate Architects Tianjin Architectural Design Institute
Structural Engineer CABR
Climate Engineer Transsolar
Lighting Consultant L'Observatoire International
Size 60,000 square meters (645,835 square feet), total construction; 20,000 square meters (215,278 square feet), each museum

AWARDS

Kaohsiung Port Terminal, page 84

Project Kaohsiung Port Terminal, Kaohsiung, Taiwan, Republic of China
Client Port of Kaohsiung, Taiwan International Ports Corp., Kaohsiung, Taiwan
Architect RUR Architecture, New York—Jesse Reiser, AIA, Nanako Umemoto (principals); Neil Cook, Michael Overby, Kris Hedges, Eleftheria Xanthouli, Juan DeMarco, Massimiliano Orzi, John Murphey (design team); Toshiki Hirano, Sonya Chao, Imaeda Ryosuke (interns and assistants); Neil Cook, Michael Overby, Kris Hedges, Juan DeMarco, Devin Jernigan, Michal Golinski, Assoc. AIA, Leigh Jester, Libby Dierker, Sonya Chao, Ana Untiveros-Ferrel, Erin Kelly, Robert Cha, Alan Kwan (competition team)
Architect of Record Fei and Cheng and Associates, Taipei
Structural Engineer Supertek, Ysrael A. Seinuk
Port Planning and Logistics Arup
Façade Consultant Meinhardt Facade Technology
Lighting Consultant Fomolux, Izumi Okayasu Lighting Design Office
M/E/P and Sustainability Engineer Arup, I.S.Leng, Mininger
Landscape Consultant Environmental Arts Design
Size 38,000 square meters (417,000 square feet)

National Music Centre of Canada, page 88

Project National Music Centre of Canada, Calgary, Alberta, Canada
Client National Music Centre of Canada
Architect Allied Works Architecture, Portland—Brad Cloepfil, AIA (lead designer); Kyle Lommen (principal-in-charge); Chelsea Grassinger (project manger); Dan Koch, Daniel Richmond, AIA (project architects); Brent Linden, Kyle Caldwell , Björn Nelson, Thea von Geldern, Emily Kappes, Philip Balsiger (team)
Local Architect Kasian
Structural Engineer KPFF, Read Jones Christoffersen
Mechanical Engineering Arup, Stantec
Electrical Engineering Arup, SMP
Theater Fisher Dachs Associates
Acoustics/Audiovisual Jaffe Holden
Lighting/Daylighting Arup
LEED Consultant Enermodal Engineering
Civil Engineering/Transportation D.A. Watt Consulting
Size 160,000 square feet
Projected Cost $150 million (Canadian)

CITATIONS

Liverpool Department Store - Insurgentes, page 92

Project Liverpool Department Store - Insurgentes, Mexico City
Client El Puerto de Liverpool
Architect Rojkind Arquitectos, Mexico City—Michel Rojkind (founding partner, design principal); Gerardo Salinas, AIA (partner); Rodrigo Medina, Arie de Jongh, Juan Carlos Sainz, Victor Martínez, Adrian Aguilar, Alfredo Hernandez, Andrea Leon, Beatriz Zavala, Alberto Villarreal, Felipe Castañeda, Isaac Smeke, Rosalba Rojas, Monique Rojkind (team)
Structural Engineer EMR SA
M/E/P Engineer RCC
Landscape Consultant Entorno Taller de Paisaje
Lighting Consultant Ideas y Proyectos en Luz
Façade Installation Alitech, Arquimart, Todo en Metal
Size 825 square meters (8,880 square feet)

Faculty of Architecture, Building & Planning, University of Melbourne, page 94

Project Faculty of Architecture, Building & Planning, University of Melbourne, Melbourne, Australia
Client University of Melbourne
Architect John Wardle Architects and NADAAA in collaboration
Collaborating Architect John Wardle Architects, Collingwood, Australia—John Wardle, Stefan Mee (principals-in-charge); Meaghan Dwyer (senior associate); Stephen Georgalas (project manager); Bill Krotiris, Andy Wong, Jasmin Williamson, Adam Kolsrud, Alex Peck, Barry Hayes, Jeff Arnold, Amanda Moore, James Loder, Sharon Crabb, Yohan Abhayaratne, Rebecca Wilkie, Ben Sheridan, Giorgio Marfella, Kirrilly Wilson, Elisabetta Zanella, Adrian Bonaventura, Genevieve Griffiths, Michael Barraclough, Matthew Browne, Maria Bauer, Anja Grant (team)
Collaborating Architect NADAAA, Boston—Nader Tehrani (principals-in-charge); John Chow (project manager); Arthur Chang (design coordinator); Katie Faulkner, AIA, James Juricevich, Parke MacDowell, Marta Guerra Pastrián, Tim Wong, AIA, Ryan Murphy, Ellee Lee, Kevin Lee, Rich Lee (team)
Size 15,772 square meters (169,768 square feet)

Soccer Centre at St. Michel Environmental Complex, page 96

Project Soccer Center at St. Michel Environmental Complex, Montreal
Client City of Montreal
Architect Saucier + Perrotte Architectes/Hughes Condon Marler Architects, Montreal/Vancouver—Gilles Saucier (lead design architect); André Perrotte (principal-in-charge); Darryl Condon, Trevor Davies, Michael Henderson, Lia Ruccolo, Patrice Bégin, Charles-Alexandre Dubois, Leslie Lok, Yutaro Minagawa, Vedanta Balbahadur, Marc-André Tratch, Nicolas Worth, Nikolav Kalinov (project team)
Structural and Civil Engineer NCK
M/E Engineer Bouthillette Parizeau
Sustainability Synairgis
Landscape WAA
Size 12,600 square meters (135,625 square feet)

The Broad, page 98

Project The Broad, Los Angeles
Client The Broad Art Foundation
Architect Diller Scofidio + Renfro, New York—Elizabeth Diller (principal-in-charge); Ricardo Scofidio, AIA, Charles Renfro, AIA (principal designers); Kevin Rice (project director); Kumar Atre, Oskar Arnorsson, Gerardo Ciprian, Charles Curran, Robert Donnelly, Christopher Hillyard, Matthew Johnson, Patrick Ngo, Quang Truong, AIA (concept team); Ryan Botts, John Chow, Robert Condon, AIA, Zachary Cooley, Eliza Higgins, Michael Hundsnurscher, Robert Loken, AIA, Nkiru Mokwe, William Ngo, Matthew Ostrow, Haruka Saito, AIA, Daniel Sakai, AIA, Andrea Schelly, Anne-Rachel Schiffmann, AIA, Zoe Small, AIA (project team)
Executive Architect Gensler, Los Angeles—Robert Jernigan, AIA (principal); David Pakshong (project director); Wendi Gilbert, AIA (project architect); Marty Borko, Assoc. AIA, Melanie McArtor, Jeffrey Anglada, AIA, Nora Gordon, AIA, Ricardo Moura, Yasushi Ishida, Brenda Wentworth, Robert Garlipp, Yupil Chon, Alexis Dennis, Greg Kromhout, Pavlina Williams, AIA (project team)
Plaza Architect Adamson Associates Architects (executive architect); Diller Scofidio + Renfro (design architect)
Museum Store Operated by Gagosian
Structural Engineer Leslie E. Robertson Associates; Nabih Youssef Associates
Civil Engineer KPFF Consulting Engineers
M/E/P/FP and Gallery Lighting Engineer Arup, I.S.Leng, Mininger
Lighting Design Tillotson Design Associates
Vertical Transportation Lerch Bates
Collection Storage Solomon + Bauer + Giambastiani Architects
Size 120,000 square feet

HONORABLE MENTIONS

Fayetteville 2030: Food City Scenario, page 100

Project Fayetteville 2030: Food City Scenario, Fayetteville, Ark.
Client City of Fayetteville—Matthew Petty (alderman and community organizer)
Architect University of Arkansas Community Design Center (UACDC), Fayetteville, Ark.—Stephen Luoni, Assoc. AIA (director); Jeffrey Huber, AIA (assistant director); Cory Amos, Assoc. AIA, Meredith Hendricks, David Jimenez, Allison Thurmond Quinlan, Assoc. AIA (project designers); Linda Komlos (administrative specialist)
Funding Decade of Design Grant Program, the American Institute of Architects, and the Clinton Global Initiative
UACDC Students Jonathan Elmore, Jacob Larison, Kimberly Murray, Ryne Pruitt, Richard Adam Stowe, Patrick Templeton, Leniqueca Welcome, Geronimo Debeza-Rodriquez, Jacob Drew Short, Timothy Patterson, Rachel Raben, Sarah Evans Jones, Paul Mosley
University of Arkansas Department of Biological and Agricultural Engineering and Center for Agricultural and Rural Sustainability Marty Matlock (area director); Nick Stoddart, Ben Putman, Lori Silva, Aaron Thomason, Barb Lombardi, John Beyers, Katie Whitbeck, Paige Heller, Jaime Gile, Nick Lombardo, Mike Crouse (students)
University of Arkansas Dale Bumpers College of Agricultural, Food, and Life Sciences Ruben Morawicki
University of Arkansas School of Law and LL.M Program in Agricultural and Food Law Susan Schneider
Size 35,000 acres

TBA 21, page 101

Project TBA 21, Patagonia, Argentina
Client Thyssen-Bornemisza Art Contemporary/TBA 21
Architect Xefirotarch/Hernan Diaz Alonso, Los Angeles—Hernan Diaz Alonso (principal); Nick Kinney (project architect); Ivan Bernal, Francisco Alarcon Ruiz, Brandon Vickers (team)
Size 2,000 square feet

Albuquerque Rail Yards Master Plan, page 101

Project Albuquerque Rail Yards, Albuquerque, N.M.
Client Samitaur Constructs
Architect Eric Owen Moss Architects, Culver City, Calif.—Eric Owen Moss, FAIA, Dolan Daggett (project director); Vanessa Jáuregui, Somayye Ramezani, Eric McNevin, Andrew Wright (project team)
Local Architects SMPC Architects—Glenn Fellows, AIA; Studio Southwest Architects—Robert Heiser, AIA
Master Development Team Samitaur Constructs—Frederick and Laurie Samitaur Smith
Conservation Architect Giora Solar Architects
Project Manager Jim Trump Jr.
Historic Preservation Cherry/See/Reames Architects—Edie Cherry, FAIA
Planning/Landscape Architect Consensus Planning
Civil Engineering Wilson & Co.—Christopher Perea
Size 879,000 gross square feet

Tree House, page 105

Project Tree House, London
Architect 6a Architects, London—Stephanie Macdonald, Tom Emerson, John Ross, Alice Colverd, Cécile David (project team)
Structural Engineer Price & Myers
Contractor John Perkins Projects
Building Control MLM
Garden Design Dan Pearson Studio; Mark Cummings Garden Designs
Size 57 square meters (613.5 square feet)

Materials and Sources

Blinds Ace Contracts *acecontracts.net*
Cladding Ashwell Recycled Timber Products *ashwellrecycling.com*
Lighting Izé *ize.info*; designed by David Kohn Architects *davidkohn.co.uk*

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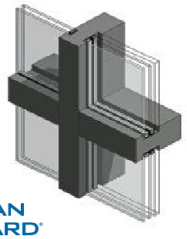

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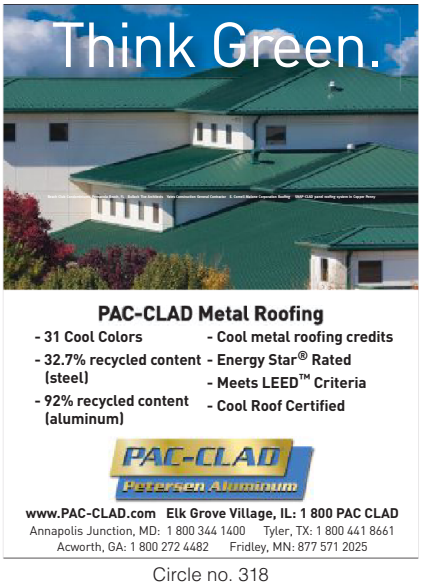

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1983 P/A AWARD CITATION

Housing Diversity

WEST BROADWAY HOUSING IS ONE OF BOSTON'S MOST DIVERSE AREAS, IN PART DUE TO THE RENOVATION OF THIS 1948 PUBLIC-HOUSING PROJECT.

Text by **Thomas Fisher, Assoc. AIA**

WHAT TO DO with distressed postwar public-housing projects is a challenge for cities around the country, and few efforts have had as much success as the upgrading of the West Broadway Housing complex in Boston. Designed by Lane, Frenchman & Associates and Goody, Clancy & Associates, the renewal plan called for inserting more streets through the development's existing superblocks, reducing the number (and expanding the size) of dwelling units, and replacing a barren, largely concrete landscape with fenced-in—and easily defensible—green spaces and playgrounds.

Not every aspect of the project got implemented. Wood-framed townhouses along West Broadway and a social-services and daycare center replaced three clusters of the proposed brick-clad housing, yielding a greater diversity of unit types and outdoor spaces. But much of the project cited by the P/A Awards jury in 1983 was realized as planned, resulting in a substantial increase in plantings and playgrounds, new direct entryways into units from the outside, and off-street parking.

The growing prosperity of this area of South Boston has reinforced the success of this development and, at the same time, the project's success has no doubt contributed to making West Broadway a desirable destination for residents, both locals and those new to the area. And while we know that architecture cannot cure society's ills, this revitalized neighborhood shows the value of attending to the details of public space and to what families of diverse backgrounds need in order to thrive. Above all, this project demonstrates how good design can create a place that attracts people and makes them want to take care of it.

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