

The Architect's Newspaper

September 2020	www.archpaper.com	@archpaper	\$3.95
Phil Freelon's legacy lives on in Freedom Park page 8	New York City's Foley Square Black Lives Matter mural page 10	Melvin L. Mitchell advocates an equitable urbanism page 16	Office of Jonathan Tate crowdfunds development page 20
		Kate Wagner on modernism's A/C dependency issues page 60	6 ICYMI 12 Eavesdrop 56 Marketplace

Landscapes for Justice

From Minneapolis: the cultural landscapes that matter now.



On May 25, 2020, 46-year-old George Floyd died on the street while in the custody of the Minneapolis Police. This was only the latest event in a chain of police killings of Black citizens over decades, one that sparked protests across the country and around the world.

From the ground here in Minneapolis, the initial news of Floyd's killing seemed like more of the same. We've lived for years with a militarized police force that is largely white, often incompetent, and beholden to its union chapter, the Minneapolis Police Federation. Lieutenant Bob Kroll, a Trump spokesperson and the chapter's elected president, is a bad-boy cop straight out of central casting.

Roughly 1,500 buildings across Minneapolis and St. Paul were damaged or destroyed in the week of protests following Floyd's murder. The vast majority of the damaging incidents of arson were instigated by outside white

continued on page 54

SUPPORTING BLACK LIVES



How can architects promote Black liberation while designing police stations?

RAISING EXPECTATIONS

The Tower Renewal Partnership retrofits Southern Ontario's concrete high-rises for a sustainable and affordable future. Read on page 23.



Pillars of the Community

LA-Más pivots to direct aid in its own backyard.

As pandemic and lockdown settled over Los Angeles this past spring, urban design nonprofit LA-Más saw the positive outcomes of its projects abruptly reversed. The office's "backyard homes" initiative, which installed Section 8 affordable housing in the backyards of assenting Angelinos, stalled, as the design team was unable to complete site visits and homeowners suddenly faced other financial concerns. At the same time, the small, minority-owned businesses whose properties spruced up by LA-Más in recent years began to close, some for good.

Since its founding in 2012, LA-Más has developed a methodology that could be a byword for design agency, pairing architecture with policy know-how to make an impact on people's lives—in particular, those living in northeast Los Angeles, where the practice has its office. But in the face of a major health crisis, even this seasoned troupe was left

continued on page 14



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Glass

Dive into the annual glass special section for the latest on energy-efficient IGUs, innovative glazing applications, and more. See page 30.

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5 Editor’s Note

Doing the Work

In the euphemism-laden developer lexicon, few words are as prodigiously trite as “community” (with “iconic” and “revitalization” trailing close behind). Browse the promotional materials of any new development in search of it, and you’ll soon wish you hadn’t.

Pummeled into banality through overuse, the word defies comprehension, becoming a lobotomy-inducing tic and then a koan-like prod: Don’t you, urbane browser, deserve the fruits of communal living? Aspirational signifiers flash by in this meaningless void, with zen equating the hermetic circuit between apartment, fitness room, and co-working hub, and the protein shake the indelible marker of kin. Community, in real estate literature, is a resource passively cultivated, as immanent as sunshine or even the urban condition itself. It exists just to be taken for granted.

Of course, this languid, buyer/striver-class picture masks the hard, often unseen work of community development, which has at its bedrock collaborative engagement—indeed, struggle. Not wanting to be mistaken for dupes, we might rebuff all appeals to “community” as part of a greater neoliberal grift, or as telltale signs that someone is trying to sell you something (in return for something less). But if we do not give *some* shape to “community,” do we not invite this kind of subterfuge from all sides?

Giving shape to things is one of architecture’s core tasks; the challenge, howev-

er, is avoiding putting the cart before the horse. To be sure, there are no shortcuts to community building, though we can certainly identify a few planks: free health-care, schools, spaces for public fora, and high-quality, affordable housing. Obtaining these desirables will require implementing regulatory mechanisms and universal entitlements, an outcome, in turn, requiring the coordinated actions of many groups and disciplines.

Such was the conclusion of the Los Angeles design consultancy LA-Más after it operated a direct aid network from its Elysian Valley offices this past spring. The effort, which partnered with neighborhood groups to deliver groceries and other basics to those in need of them, was successful in the short term, providing positive, though limited, proof of architectural agency. But for project manager Alexandra Ramirez Stege, it also exposed “systemic deficiencies” that deprive people of other, larger basics: namely, permanent shelter in a city with the second-largest homeless population in the country.

Housing is indispensable to architect Melvin Mitchell’s vision of an “equitable urbanism,” which entails a community-oriented house-building campaign on the order of a second Marshall Plan that he sees unfolding over the next two decades. In his essay, Mitchell recounts how the progressive dream of housing for all curdled into the ugly reality of redlining and cynical un-

derinvestment, even as developers gorged on billions in federal slush funds. Looking to avoid a similar fate, Mitchell proposes the creation of a national Black affordable housing industry capable of altering “the vast economic disparities between Black America and the rest of America.”

Back in the tumultuous present, urban planning scholar Hilary Malson examines the role of redevelopment in Louisville’s West End in the months following the murder of Breonna Taylor. In Russell, a neighborhood ten miles from where Taylor was shot by police, community groups, including Black Lives Matter Louisville, are contesting the displacement of long-standing residents by city-sanctioned, police-protected regeneration schemes. Vision Russell, a “smart” building initiative geared toward drawing investment to the poorest pocket of the West End, claims the support of some of these very same groups.

In Detroit, architect Laura Walker acknowledges her discipline’s complicity in the over-policing of marginalized communities through the design of prisons and jails. While she applauds her colleagues who have taken a principled stance against this work, she argues that little is accomplished when resistance manifests itself individually. Instead, architects acting as a collective pressure group on city governments should forcefully make the case for investment in Black, Indigenous, and people of color (BIPOC) communities.

And lastly, a few hours northeast, in Toronto, ERA Architects are working to refurbish the city’s network of high-rises for the benefit of migrant families. The project, which has been underway for more than a decade, is on the cusp of a breakthrough: ERA and its various partners are nearing completion on the conversion of a tower into a senior community that is expected to meet rigorous Passive House standards.

In telling and reporting these stories about different manifestations of community, our aim was to replace the shibboleth—even alibi—with something more well-rounded. More broadly, we hoped to show that community is not a numinous substance existing out there in the chilly Toronto air, or the balmy Los Angeles spring, but rather a social compact that we need to renew constantly. It takes work.

Read more at [archpaper.com](https://www.archpaper.com).



6 In Case You Missed It...

We corralled the top architecture and design stories buzzing about the internet this month.

Renzo Piano's Saint George Bridge inaugurated in Genoa, Italy

Italian prime minister Giuseppe Conte inaugurated the Renzo Piano-designed Viadotto Genova-San Giorgio (Saint George Bridge), a 3,500-foot-long concrete and steel viaduct carrying four lanes of the A10 motorway across the Polcevera River in the northwestern city of Genoa. It replaced a bridge that collapsed in 2018.

REI will sell its new NBBJ-designed headquarters before moving in

REI employees excited to move into the retailer's sprawling, NBBJ-designed new campus once things return to "normal" shouldn't hold their breath. The company has announced that it intends to sell its just-completed 8-acre corporate home in Bellevue, Washington, without ever using it. REI is "shifting to a less centralized approach to its headquarters."

USGBC creates new COVID-19 LEED pilot credits

Earlier this summer, the U.S. Green Building Council (USGBC) announced the creation of a quartet of new pilot credits for previously LEED-certified building projects and ones that are currently undergoing LEED certification and also uniquely respond to the challenges of COVID-19.

Autodesk issues a response after architects speak out over Revit

After nearly 20 top U.K. architecture firms penned an open letter to Andrew Anagnost, president and CEO of Autodesk, decrying the rising cost, complexity, and licensing structure of Revit, the company responded with a list of ways it would address their concerns.

Zaha Hadid Architects reveals a modular housing platform for Honduras

Zaha Hadid Architects has teamed with international engineering consultants AKT II and Hilson Moran to develop a residential kit-of-parts for the Caribbean island of Roatán, off the coast of Honduras. Rather than build a community from the ground up, the team has developed a digital platform for prospective homeowners to design their own structures.



Exhibit Columbus reveals 2020–2021 curatorial theme and Miller Prize recipients

The curatorial theme for the next "exploration of architecture, art, design, and community" held in Columbus, Indiana, will respond to both the size and geographic positioning of modernist architecture-rich Columbus itself: *New Middles: From Main Street to Megalopolis, What Is the Future of the Middle City?*

Construction of delay-ridden St. Nicholas Greek Orthodox Church resumes

Governor Andrew Cuomo joined Archbishop-op Elpidophoros, the leader of the Greek Orthodox Archdiocese of America, and other community leaders in a ceremony kicking off the final phase of work on the half-completed project located opposite the 9/11 Memorial plaza. The church is now set to open on September 11, 2021.

ASLA cancels 2020 Conference on Landscape Architecture

The Washington, D.C.-based American Society of Landscape Architects (ASLA) has announced that the 2020 edition of the annual ASLA Conference on Landscape Architecture has been canceled because of the coronavirus pandemic. The event was slated for October 2 through 5 in Miami Beach, Florida.

Herzog & de Meuron will design San Francisco's newest hospital

The largest University of California San Francisco (UCSF) campus is about to get even bigger, as the school announced on July 7 that Herzog & de Meuron would be designing a hospital at the UCSF Helen Diller Medical Center at Parnassus Heights. Multinational architecture firm HDR will serve as the architect of record for the 955,000-square-foot facility.

Notre-Dame Cathedral's spire will be rebuilt to pre-fire status

French president Emmanuel Macron has decided that Notre-Dame Cathedral's 19th-century spire will be restored to its original state. The 300-foot-tall spire, toppled by the fire that gutted the Parisian landmark, had become a topic of debate for the reconstruction commission, which was tasked with revitalizing the cathedral before the 2024 Summer Olympics.

Diller Scofidio + Renfro's U.S. Olympic and Paralympic Museum opens in Colorado Springs

Diller Scofidio + Renfro's United States Olympic and Paralympic Museum opened to the public just days after the 30th anniversary of the Americans with Disabilities Act. The museum's stair-free interior was designed so guests with and without disabilities can move throughout the trilevel space together.

Eva Franch i Gilabert fired as director of London's Architectural Association

After weeks of uncertainty about Eva Franch i Gilabert's future as director of the Architectural Association School of Architecture (AA), she was fired by the London institution. Questions about the footing of Franch's leadership surfaced in May after the AA community, including the school's council, held internal polling regarding Franch and her vision for the school.

Picasso murals removed from Oslo office building as demolition work begins

Demolition work commenced at Y-Block, a disused 1960s-era office building in Oslo with two rare Pablo Picasso murals sandblasted directly onto its concrete walls. Last-ditch efforts to preserve the murals and the Brutalist building as one failed, because officials remained unsuayed.

Work is complete on the Las Vegas Raiders' Allegiant Stadium

The 65,000-seat Allegiant Stadium for the Las Vegas Raiders is now finished, just in time for the 2020 NFL season. Designed by MANICA Architecture of Kansas City, Kansas, the structure is animated by an 85-foot-tall fluted flaming cauldron built to honor Al Davis, the longtime principal owner and manager of the Raiders, who died in 2011.

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The White House’s fabled Rose Garden has been revamped

Just months after breaking ground on a neo-classical tennis pavilion, the Trump administration announced that it will also renovate the White House Rose Garden. First lady Melania Trump announced the landscape revamp, which *The New York Times* referred to as a “signature showcase of power used by presidents for decades.”

Trump administration officially nixes Fair Housing rule

Under Department of Housing and Urban Development Secretary Ben Carson, the Trump administration never enforced 2015’s Affirmatively Further Fair Housing mandate, and now it’s officially gone. The rule stipulated that to receive federal housing funds, jurisdictions had to identify patterns of housing discrimination and work toward eliminating them.

Selldorf Architects to design new home for Shaker Museum furniture and artifacts

The Shaker Museum in upstate New York has selected Selldorf Architects to design a permanent home for its collection of artifacts from the Shakers, a utopian community best known today for its minimalist furniture. The building will complement the museum’s programming at a museum village in Mount Lebanon.

Hotels and food hall open at restored Cook County Hospital in Chicago

The \$140 million Skidmore, Owings & Merrill-led adaptive reuse of the old Cook County Hospital, a once-imperiled 1914 Beaux Arts edifice that housed a hospital often described as “Chicago’s Ellis Island” because of its open-door policy of treating patients of all nationalities and from all walks of life, is partially complete.

SWA Group tapped for Freedom Park master plan in Atlanta

The Houston studio of SWA Group has been selected by the Freedom Park Conservancy to create a master plan for one of Atlanta’s largest, busiest, and most distinctive parks. Linear and lined with public art installations, Freedom Park encompasses over 200 acres and links downtown Atlanta with the city’s east side.

A third of museums in the U.S. could shutter in the next year

A survey by the American Alliance of Museums paints a dire portrait of the state of museum operations in the United States: 33 percent of the museum directors predicted their institutions wouldn’t last another 16 months without outside help.

Seattle will have to borrow a nine-figure sum to fund West Seattle Bridge mitigation

The emergency closure of a structure as vital as the West Seattle Bridge would put any city in a financial bind. The Seattle Department of Transportation needs to secure \$100 million through a bond sale, in addition to another internal loan, and between \$160 million and \$225 million will go toward bridge-related work by the end of the next year.

Bill to create National Museum of the American Latino clears the House

A new Smithsonian museum dedicated to Latino history and culture in the United States could be coming to the National Mall in Washington, D.C. If H.R. 2420 passes in the Senate, it would be only the second new museum for the Smithsonian Institution since the National Museum of African Art debuted in 1987.

Construction costs fall as material prices continue to rise

Construction costs have reportedly fallen for the first time since 2010, but according to Associated Builders and Contractors, a national construction industry trade association, raw material costs rose by 2.2 percent in June. Nonresidential material inputs rose by 2.3 percent.

Getty Foundation announces final round of Keeping It Modern conservation grants

The Los Angeles-based Getty Foundation’s Keeping It Modern initiative has announced the final 13 conservation undertakings, which will share a combined \$2.2 million for the conservation of singular works of 20th-century architecture.

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Vol. 18, Issue 7 | September 2020

The Architect’s Newspaper (ISSN 1552-8081) is published 8 times per year by The Architect’s Newspaper, LLC, 21 Murray St., 5th Fl., New York, NY 10007.

Presort-standard postage paid in New York, NY. Postmaster, send address change to: 21 Murray St., 5th Fl., New York, NY 10007.

For subscriber service: Call 212-966-0630 or fax 212-966-0633.

\$3.95 a copy, \$39.00/year; International \$160.00/year; Institutional \$149.00/year

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Moving Forward

Phil Freelon’s legacy lives on in the North Carolina Freedom Park.

On July 1, North Carolina governor Roy Cooper approved government funding for a new landscape in the heart of Raleigh designed by the late architect Phil Freelon’s team at Perkins and Will. Called the North Carolina Freedom Park, it will honor the African American experience.

Funding for the project had stalled along with the rest of the state’s budget in the Republican-controlled legislature, but after the nationwide Black Lives Matter-led protests following the killing of George Floyd in May, legislators approved a special mini-budget that included funding for the park. The project could break ground in the coming months.

It’s a major breakthrough for an initiative that has been in the works for years. The Paul Green Foundation, an organization created in memory of the Pulitzer Prize-winning North Carolinian playwright, whose work frequently focused on struggles for justice in a racist society, proposed the project in 2002. A board initially led by the

late historian John Hope Franklin secured state approval for the park to occupy a one-acre site between the governor’s mansion and the state legislative building in 2011, and in 2016 the board issued a request for proposals for the park’s design.

“We did not want statues,” said Reginald Hodges, former executive director of the Durham Literacy Center and a member of the park’s board of directors. “We wanted ordinary people highlighted, and a view toward the future.”

Freelon’s team, from the Durham office of Perkins and Will, won with a design conceived as a kind of historical excavation exposing the buried histories and contributions of Black North Carolinians. The design features paths that cut through the landscape, bounded by retaining walls engraved with quotes “highlighting the Black struggle,” Hodges said.

“Black contributions and the struggle for freedom have not been highlighted in Raleigh and North Carolina, in general,”

Hodges said. “We see the park as a place where the contributions of African Americans in North Carolina and their struggle for freedom will be recognized and honored for their role in building our state.”

After Freelon won the project, plans for the park evolved to include a flame-shaped sculpture inspired by a quote from North Carolinian civic leader, activist, and editor Lyda Moore Merrick: “My father passed a torch to me, which I have never let go out.” *The Beacon of Freedom*, as the perforated metal sculpture will be called, will be fabricated by Denver-based studio Demiurge. It will stand in the center of the park surrounded by the engraved walls and plantings executed by Durham-based landscape architecture firm Surface 678.

Freelon died in 2019, leaving the park in the care of Perkins and Will’s urban design leader in North Carolina, Michael Stevenson. The project will be one of Freelon’s last executed projects, a fitting cap for a career that shaped many of the country’s most sig-

nificant spaces dedicated to celebrating African American culture.

“This park is about promoting an aspect of history that has not been as celebrated as it should’ve been,” Stevenson said. “Phil’s career was built on ideas about social justice and equity, and how architecture and design play a role in that. He believed that excellence in design was a critical aspect of promoting those ideas, and that people from all races and income levels deserved access to the best design and architecture have to offer. *The Beacon* will highlight that these struggles are ongoing.”

While the governor’s approval of state funding is a large boost for the project, the board is still looking for an additional \$1 million from private sources. Assuming that the money is raised and there aren’t significant coronavirus-related delays, the board is hoping to open the park at the end of 2021.

Jack Balderrama Morley



Above left: The park landscape's retaining walls will feature historical quotes from various Black North Carolinians.

Above: The new park will share its downtown Raleigh, North Carolina, site with the existing Crime Victim Memorial Garden.

Left: *The Beacon of Freedom* will be at the center of the park.

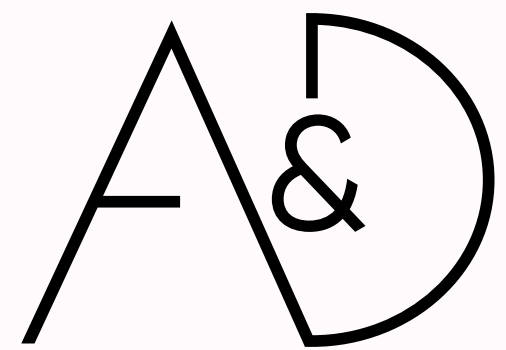
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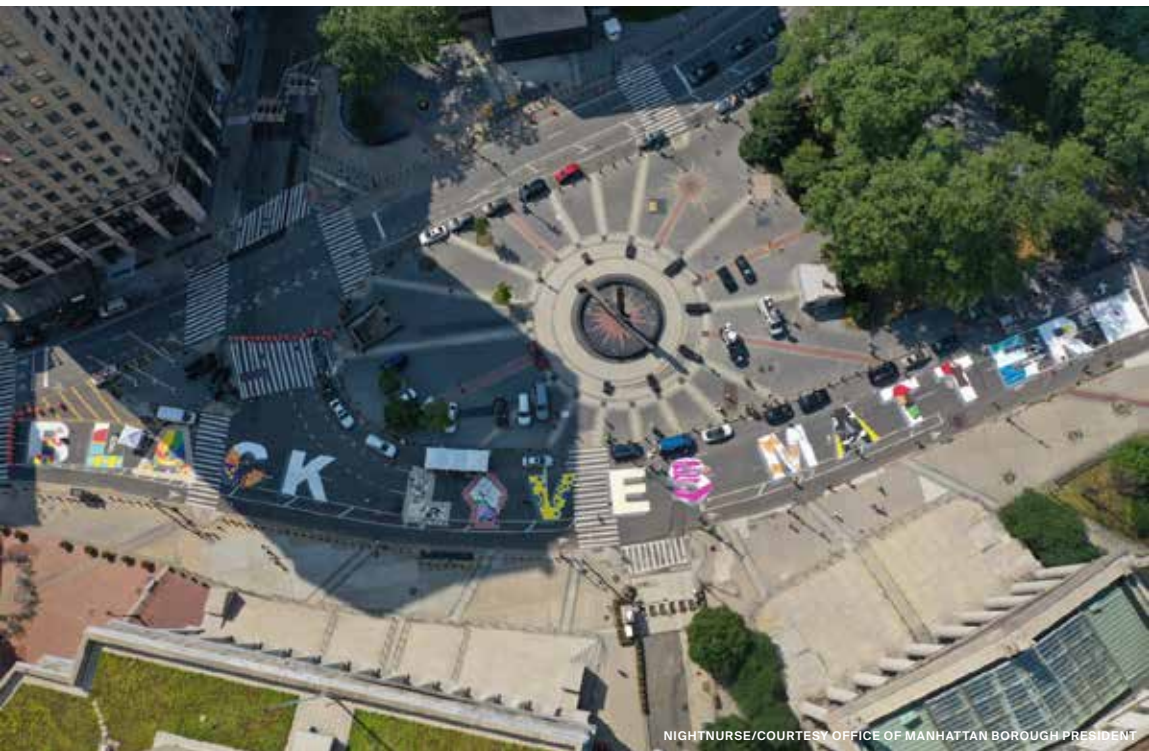
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It Takes a City

Foley Square’s Black Lives Matter mural is a designer-led transformation of public space.



Above left: Muralist collective Tats Cru along with Thrive Collective provided technical support. **Above right:** The mural runs through the administrative heart of New York City.

Beginning in mid-June of this year, eight large-scale “Black Lives Matter” murals were painted directly onto streets in the five boroughs of New York City. All of them were born from creative undertakings as disparate and complex as the communities where they’re found.

One, drawn in front of Trump Tower on Fifth Avenue in Manhattan in bright yellow road paint, was spearheaded in part by the office of Mayor Bill de Blasio. Before that, on Fulton Street in Brooklyn’s historic Bedford-Stuyvesant neighborhood, came a community-led mural with assists from the Departments of Transportation, Sanitation, and Buildings. On Adam Clayton Powell Jr. Boulevard in Harlem, another mural came to fruition as an artist- and community-led effort, also with city support. The Bronx, Queens, and Staten Island have them, too, all organized and executed in different ways with different players.

“It’s really a mix,” Justin Garrett Moore, executive director of the city’s Public Design Commission, said of the approaches and groups behind the eight murals. Yet despite their differences, all eight works of street art have the same, resounding three-word message spelled out in chunky, Paul Bunyan-size lettering: Black Lives Matter.

The mural at Foley Square in Lower Manhattan differs from the rest because it eschews the straightforward, monochrome execution of some of the other murals in favor of 16 distinct, kaleidoscopic letters. The Foley Square mural, which stretches across three blocks of Centre Street from the New York State Supreme Court Building to the Manhattan Municipal Building, is a bonanza of colors, shapes, and designs. Each letter can be viewed as a stand-alone work of art. Three artists—Tijay Mohammed (*Black*), Sophia Dawson (*Lives*), and Patrice Payne (*Matter*)—were each responsible for one mammoth word.

Located a short walk from New York’s city hall and the African Burial Ground National Monument, the Black Lives Matter mural at Foley Square is the only piece whose creation

was led by—and partly funded by—architects, designers, and urban planners.

Like other Black Lives Matter murals around the country, the one at Foley Square follows in the oversize footsteps of the mural unveiled on June 5 in front of the White House. The creation of that work, led by Washington, D.C., mayor Muriel Bowser, was spurred by the initial protests against social injustice, police brutality, and institutionalized anti-Black racism following the killing of George Floyd.

The Foley Square mural drew the participation of many city agencies and officials. A key player was Manhattan borough president Gale Brewer, who, working with Black Lives Matter of Greater New York, was instrumental in selecting and securing the site. The 11-member Public Design Commission, which was engaged more directly in the Foley Square mural than in the others, and, as its executive director, Moore served as a choreographer, helping to coordinate the many factions that artistically and financially contributed to the artwork. “Despite all the bad impressions people have about government, there were good people from multiple agencies working to make this happen,” Moore said. “There’s a lot of stuff that it takes to get stuff like this done.”

But the Foley Square mural was, in the end, “largely an independent effort, working between private and grassroots organizations,” Moore emphasized. He called the groups behind the project “an unusual combination of people from the architecture, design, and built environment community who were motivated to really connect the mural idea to public space explicitly, and the idea to a civic center more explicitly.”

New York-based firm WXY Architecture + Urban Design helped with planning and logistics, working in concert with youth arts nonprofit Thrive Collective and Tats Cru, a Bronx-based collective of graffiti artists and muralists. Amina Hassen, a senior associate and urban planner, and architectural designer Jhordan Channer served as WXY’s project leads.

“For a long time, in both urban planning and in architecture, there has been a refusal to acknowledge how political our work really is,” Hassen said. “For me, personally, it feels very important at this point in time to acknowledge as creators who are in positions to help shape the public realm that we come to it with our values and our political standings—because the places that we are involved in creating are not neutral spaces.”

Referring to WXY as “true allies with the agency, resources, and connections that absolutely helped make this happen,” Moore noted that the firm was also crucial in orchestrating a “peer network of design firms,” most of them based in downtown New York City, that lent financial support to the project. Among others, Snøhetta, COOKFOX, Rogers Partners, SCAPE, ODA, FXCollaborative, SHoP Architects, and Ken Smith Workshop contributed.

The Janovic Paint & Decorating Center in SoHo and Benjamin Moore donated the 180 gallons of paint used to realize the mural, a work of public art that Channer referred to as a “counter-narrative to the racist, colonial symbols in our public spaces.”

With so many entities contributing artistically, technically, and financially, the mural at Foley Square took a bit longer to conceive and complete than its counterparts. (It was originally slated to be unveiled on Juneteenth—June 19—but was completed July 3.) But Moore said it was critical that the project came together deliberately.

“It was really important that it was a broader effort; it took us more time to do it, but it was important that how we did it really mattered,” Moore said. “The fact that we had so many participants and players was a part of that process.”

Moore also stressed the importance of a process put in place to confirm that all donations and logistical support were “aligned with what Black Lives Matters is aligned with broadly. It took time to do that vetting and find the right partners to ensure that it was a coalition of people that were fully committed to the work.”

The involvement of Percent for Art, a program of New York City’s Department of Cultural Affairs, was also crucial in seeking out emerging artists in lieu of established ones with large followings. “It was a very intentional process,” Moore said. “People who aren’t normally given a platform and agency to do this kind of work were brought in.”

And as Moore added, the broadness of the mural’s statement—“Black Lives Matter”—is reflected in the artists themselves, who are of different religious backgrounds, genders, and sexual orientations. “Providing a platform for the artists to give this statement in their own voices was really important,” he said.

The Foley Square mural’s positioning amid some of the most powerful arms of the city’s bureaucracy was just as intentional as all other aspects of its creation. Noting the proximity of the Thurgood Marshall federal courthouse, the New York City Police Department headquarters, City Hall, and the Metropolitan Correctional Center prison, Channer explained, “Conceptually, it’s an attempt to create a space on the street where people of color can exist.... It’s sort of labeled for them.”

Both Hassen and Channer were quick to emphasize the significance of their involvement in the mural as professional shapers of the built environment—an urban planner and an architect, respectively, both of color—who have a direct hand in making public spaces more accessible and more equitable to all. “It was important that we became a part of this and really defined for ourselves what our streets look like and what those places we inhabit look like,” said Channer.

“Urbanists and architects have a lot of work to do to make Black lives matter in how we create and improve our public realm,” Hassen added. “By participating in this mural, it’s really just a statement of a start to rethinking our ways of working.”

Matt Hickman

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12 Eavesdrop

Kanye West wants more Zumthor

Kanye West, the rapper and presidential aspirant, recently took to Twitter to express something like enthusiasm for the Swiss Pritzker Prize winner **Peter Zumthor**. “I can’t wait to post another Peter Zumthor so I can say had to post one more by Zumthor ...bars,” West posted, along with a photo of the interior of Zumthor’s Bruder Klaus Field Chapel in western Germany. The chapel’s rough textured walls, monolithic construction, dramatic lighting, and simple geometries seem to mesh well with the “Jesus Walks” rapper’s taste in design.

The **Axel Vervoordt**–designed home that he shares with his spouse, **Kim Kardashian West**, features stripped-back white interiors and monochromatic furniture, and the rapper has been working on globular home prototypes inspired by the weathered desert buildings on the planet Tatooine from the Star Wars movies. West has also used **James Turrell**’s monumental art environment *Roden Crater* for his film *Jesus Is King*. We like to picture Zumthor returning the interest and cranking up Ye on his airpods.

Rem gets what he wants

Rem Koolhaas and AMO’s rollicking exhibition *Countryside, The Future* at the Guggenheim Museum in New York was open less than a month before lockdown orders put the city’s cultural life on an extended hiatus. Reviews of the show painted it as a curate’s egg, with many commenting on its chaotic organization and freewheeling—at times, injudicious—curatorial hand. A leaked transcript of a late-January curatorial meeting at the Guggenheim—just weeks before *Countryside* opened to the public—revealed that the disarray went deeper than the clutter visitors encountered on the gallery walls. In the recorded colloquy, Nancy Spector, Guggenheim artistic director and chief curator, expressed both exasperation about the AMO team’s inability to make deadlines and surprise that Koolhaas could have commandeered such a rickety ship: “*Delirious New York* is one of the canonical texts about architecture and urbanism. So, you know there was a hope he could deliver it. And it just kept, deadlines missed after deadline after deadline...” She also characterized the AMO head unflatteringly: “Rem is a bully, and Rem is getting a lot of what he wants,” she said early on in the meeting. Much later, she suggested that “Rem doesn’t like anybody else’s ideas about his show unless they’re his cronies.” The transcript was made public by A Better Guggenheim, a collective of past and current Guggenheim employees that aims to “end the museum’s deep culture of fear and create a work environment where we all, especially our BIPOC colleagues, feel safe, supported, and respected.” In late June, a letter cryptically signed “The Curatorial Department” and addressed to Guggenheim director Richard Armstrong and Spector, among others, faulted the Guggenheim’s leadership for failing to take actionable steps toward race and gender equity; the letter followed an earlier roundtable discussion set up by the museum’s human resources department in response to the protests against racial injustice. At the same January curatorial meeting, Spector herself speculated to her unnamed colleagues about “an institutional reckoning after Koolhaas opens.” A reckoning did, indeed, arrive.

John Waters, concrete whisperer

John Waters, the legendary Baltimore-based filmmaker behind *Pink Flamingos*, *Polyester*, and *Hairspray*, talked to *The Architect’s Newspaper* about his love of Brutalism. His latest essay collection, *Mr. Know-It-All: The Tarnished Wisdom of a Filth Elder*, includes a chapter called “My Brutalist Dream House,” where Waters writes, “I want to level my existing home and build my own brutalist dream house.” He goes on: “Tear down your existing home...F*#& your past. Torch all those Chippendale heirlooms, that Jean Roger furniture, your midcentury antiques, that arts-and-crafts crap. It all goes out of style one day anyway. Take a flamethrower to your beautifully landscaped garden, too. You need to move beyond any kind of taste to a new level of architectural defiance. There’s only one way to start over. Brutalism. The new ugly.” When asked if he was earnest about his architectural inclination, Waters confirmed that he was. “I do love Brutalism,” Waters said. “It does shock me, and some of it is so ugly that it’s truly amazing. I do find Brutalism hideous and great, and I’m really interested in it.” Maybe a raucous Paul Rudolph biopic is in the works.

Q&A

Interdisciplinary Outlook

Omar Khan talks about his transition to leading the Carnegie Mellon University School of Architecture.

After nearly two decades at the University at Buffalo (UB) School of Architecture and Planning, Omar Khan is taking up a new position this fall as head of the Carnegie Mellon University (CMU) School of Architecture. He talked with *The Architect’s Newspaper* about his tenure in Buffalo and how ideas he forged there have translated to his vision for CMU.

The Architect’s Newspaper: You were with the University at Buffalo for close to two decades. Which aspects of its program are you particularly proud of?

Omar Khan: I am particularly proud of the Graduate Research Groups, which are a fundamental part of the MArch curriculum that I helped initiate. I started the Graduate Research Groups with Kent Kleinman and Mehrdad Hadighi when I was still an assistant professor. The idea behind the groups was that the graduate program should not be about architecture as an autonomous field, but should frame architecture as a way to connect with pressing topics in society. During the seven years when I was chair of the architecture department at Buffalo, we expanded the program from four to five groups: inclusive design, ecological practices, material culture, situated technologies, and urban design. We wanted to unapologetically align architectural design to specific societal and design concerns.

AN: UB’s Sustainable Manufacturing and Advanced Robotic Technologies (SMART) lab was founded in 2015 and is a place for interdisciplinary experimentation, with frequent collaboration with leading regional manufacturers. You have also codirected UB’s Center for Architecture and Situated Technologies for the last 15 years. Do you envision pushing for similar programs at CMU? And do you foresee collaboration between the two universities in such initiatives as the Architectural Ceramics Assemblies Workshop (ACAW), which UB helps organize?

OK: SMART’s focus was to bring together disparate industries working in metal, concrete, stone, and terra-cotta under a single umbrella. My participation in that program focused primarily on research of terra-cotta manufacturing and the transfer of digital techniques, workflows, and so forth into craft-based industry. At CMU we’re going to have a similar opportunity to reach out to manufacturing within and around Pittsburgh, as we did in Buffalo. Both SMART and the Architectural Ceramics Assemblies Workshop demonstrate that we can have significant influence on the kind of direction technologies and industries take. ACAW will continue to be at UB with Boston Valley [Terra Cotta], but CMU will try to develop a collaboration there.

Situated Technologies started in 2008, when most architects were just interested in computing as a tool, but Mark Shepard and Trebor Scholz and I were focused on understanding computing as an environment, in the same way as the built environment. CMU, which is at the cutting edge of AI technology, offers an opportunity to immerse myself again in that kind of research.

AN: What do you perceive to be the greatest challenges facing the CMU School of Architecture?

OK: Any program that’s not dealing with climate change is not dealing with reality. I’m hopeful that CMU will become a leader in this area, and the school has worked on sustainability for a long time at the Center for Building Performance and Diagnostics. What I will bring is a material focus on sustainability, and how the industry uses construction technologies and building systems. This is a situation where CMU is the leader, and I am just there to foster it. Another challenge that we’ve had since the 1980s is academic capitalism, or the reframing of American academia as a product to be purchased by consumers in a competitive marketplace. Universities frame their programs and brand them as exclusive purposely to raise their price tags. Another challenge is institutionalized racism within the university system, which is tied to a larger question of how we framed and branded education with Eurocentrism. These kinds of things are in front of all of us, especially at elite universities that have for the longest time perpetuated this in their admissions processes. The worst is the experience of the students at your institution when they are made to feel inadequate. We can’t continue to be deaf to this reality: If we don’t take an antiracist position right away, then this rot at the root will continue to run systematically through every aspect of our program and shape the kinds of attitudes we have toward communities.

AN: What are you most excited about in your new position at CMU?

OK: As head of the School of Architecture, I’m part of the larger College of Fine Arts. The other schools are design, art, drama, and music. It’s incredibly exciting for me to be part of a college of arts within a technical university. It aligns with much of my own research across architecture and design media, but also the sense that within the context of this very influential and elite technical university that you have these arts programs that are maybe not consciences, but interrogators of that whole endeavor.

Matthew Marani

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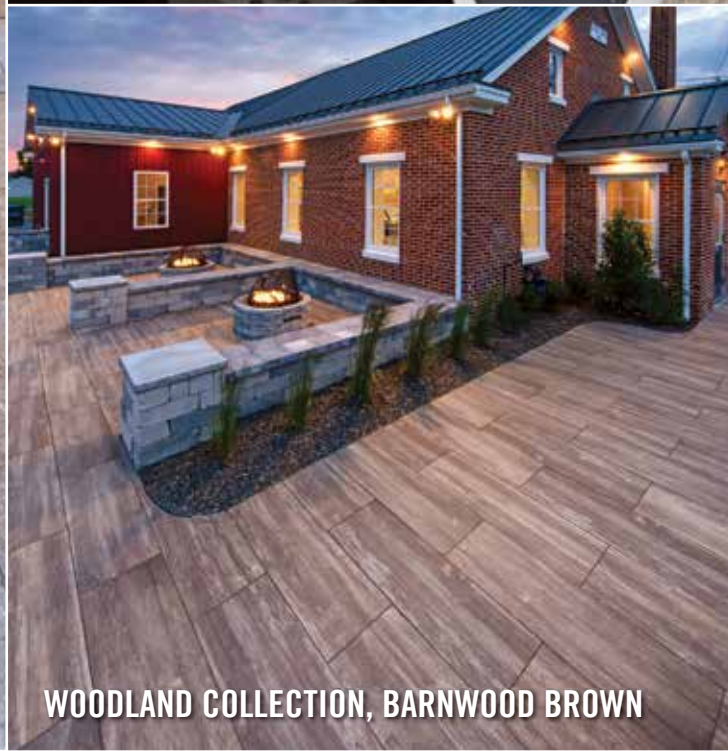
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Pillars of the Community continued from front page questioning design's utility.

“As designers, we’re taught to nurture our egos, and that our designs are important and have value embedded [in them],” said Alexandra Ramirez Stege, a program manager at LA-Más. However, extenuating circumstances forced Ramirez and her colleagues “to take a step back and see what the community priorities were.”

Those priorities concerned the basics—groceries, face masks, financial assistance, ways to entertain kids while they were home from school for an extended spring break. LA-Más founders Helen Leung and Elizabeth Timme leveraged their community ties to string together a direct aid network on the fly, connecting with nonprofits and community groups to fill the gaps. By the time their Northeast Los Angeles Community Response initiative wrapped at the end of June, it had served 828 residents, delivering a total of 922 bags of groceries, 850 activity kits, and 1,490 face masks.

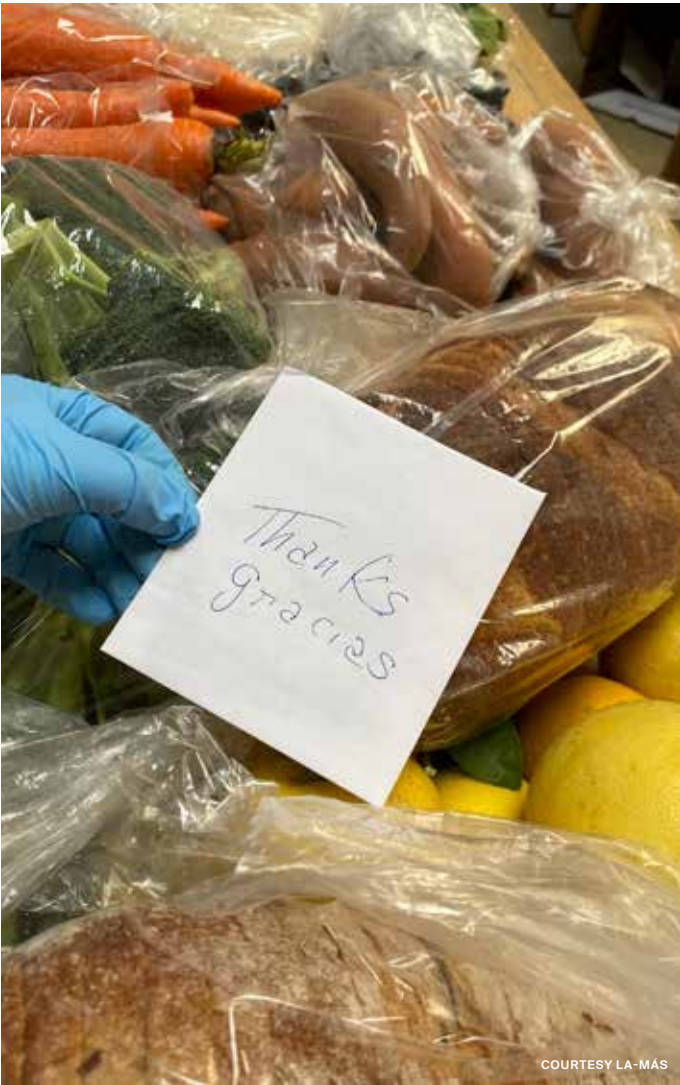
“I was very impressed at how quickly the switch was flipped,” said David De La Torre, of the Elysian Valley Neighborhood Watch, the initiative’s cocreator and one of LA-Más’s most critical partners in distributing aid.

Ceci Dominguez, another critical partner, sometimes received dozens of calls a day to her Elysian Valley Senior Group from worried neighbors requesting aid. “I was just blown away,” Dominguez said. “I don’t think there’s anyone that didn’t get what they wanted.”

Initially, the aid network focused on Elysian Valley, a small, multiethnic area around LA-Más’s office, but it soon fanned out across northeast Los Angeles. While funded by charitable foundations, local



COURTESY LA-MÁS



COURTESY LA-MÁS



COURTESY LA-MÁS

This past spring, LA-Más operated a mutual aid initiative out of its Elysian Valley, Los Angeles, office. The architects coordinated with local community groups to distribute groceries, face masks, children’s activity kits, and other basics to needy neighbors. The project, which drew 150 volunteers to its cause, concluded in late June.

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community groups, and individuals, the effort was animated by the embedded social capital of LA-Más’s Leung, who grew up in the neighborhood and had known De La Torre for years. His and Dominguez’s organizations funneled names and needs to LA-Más, which used its offices as staging areas for deliveries.

LA-Más’s success is an argument for designing and working where you’re planted. Undergirding the practice is an understanding of the nuances, and oversights, of public policy (Leung has a degree from Harvard’s John F. Kennedy School of Government, and the backyard homes drive is built on local regulations). In cases where policy has no bearing, or affords few provisions, LA-Más eyes opportunities within informal community connections. For many residents, especially the undocumented, informal connections may be the only way to ensure access to resources they deserve. Dominguez said many of her neighbors with the strongest needs are “not on any voters list.”

It’s an approach other design firms have taken, as well. In Chicago, Paola Aguirre of Borderless Studio and a network of community groups have used a shuttered modernist elementary school as a food distribution hub. Elsewhere, Meghan Talarowski’s Studio Ludo designed and distributed thousands of “play packs” to Philadelphia families.

LA-Más’s own crafting and play kits were a chance to exercise more traditional design skills. Linda Reyes, who managed the community response project with Ramirez, said that LA-Más emphasizes “being able to center joyful experiences in our projects,” and the crafting kits are a prime example. According to the pair, the bird feeder kit was one of the most popular because it allowed for an added level of engagement with the outdoors while everyone was quarantined at home. The community response initiative also entailed graphic design work meant to help people navigate opaque and complicated bureaucratic systems; flyers provided guidance on tenant and homeowner rights.

“When people have experiences of being excluded from design, those are the folks that have the most sense of the barriers that are experienced, and then how we can get rid of the barriers,” said Ramirez.

By the time the initiative had reached its conclusion, however, LA-Más found that focusing so much effort on immediate needs left the underlying conditions responsible for causing this deprivation unchallenged—for example, the insistent gentrification pressure in Elysian Valley.

“Having the grocery bags is helpful, because instead of paying additional money for groceries every week, families are able to save that money for their rent,” said Ramirez. “The underlying issue, though, is folks need more affordable housing. There’s other stuff that we think we can try to start tackling that we can’t do if we’re devoting all of our time to servicing immediate needs.”

Systemic deficiencies codified in the built environment put LA-Más back in the realm of public policy and design, where long-standing questions about the agency of designers continue to linger. These are questions LA-Más is attempting to answer with an organizational pivot away from being an urban design non-profit, and toward aiding neighborhood resilience in service to working-class communities of color more broadly. Given the sheer pervasiveness of the pandemic, there may be a broader coalition than ever to make more lasting changes. **Zach Mortice**

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Build Something Big!

How to bolster Black America and build millions of new affordable housing units by 2030.

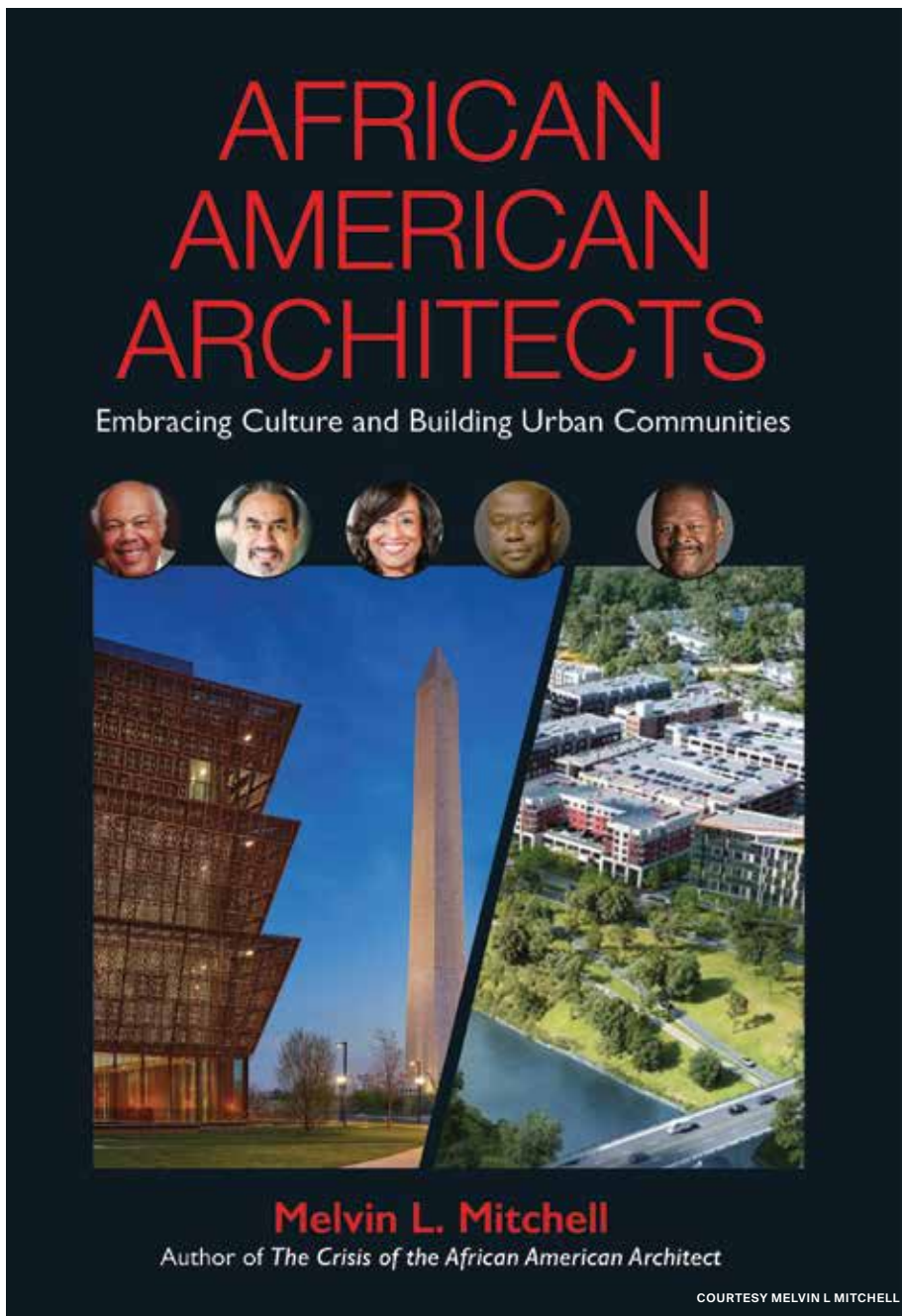
A national housing crisis is destroying Black America's prospects for maintaining cohesion and viability in the country's cities and inner suburbs. Inside Black America resides a disjointed assortment of financial institutions, brokers, contractors, developers, architects, planners, landscape architects, engineers, fabricators, suppliers, title companies, tradespeople, property managers, unskilled laborers, and other related entrepreneurs. This collection of entities—most with memberships comprising 2 percent or less of their respective national accrediting bodies—are an anemic but nascent African American building industry.

Since the 2016 opening of the National Museum of African American History and Culture in Washington, D.C., African American architects have been experiencing a heightened level of attention throughout Black America. African American architects could parlay that attention to elevate themselves to a place of essentiality in Black America that could rival Black medical doctors and lawyers. Those two groups currently hold representation in their professions that are two and a half times that of Black architects. Realization of such an aspiration will require that Black architects undergo deep but doable attitudinal and behavior modifications, including several things not normally done by formally trained architects. One would be to read the last several National Urban League *State of Black America* reports. There, one will find a grim picture of the socioeconomic and financial health of Black America, a consequence of the past 15 decades of de jure and de facto policies of white suppression of Black wealth creation. The Urban League reports call for a new Marshall Plan for urban main street America to counter this force.

But who would be the actual builders and wealth-creation beneficiaries in such a plan?

No single one of the “2 percent” entities—least of all architects—can make a meaningful positive impact on the plight of Black America alone. Architects are too prone to think and talk incessantly about the priority of “design” while ignoring that they are in the real estate and construction businesses, like it or not. The mission for a new apostate wing of African American architects who conflate the still-siloed roles of architect, real estate developer, and builder must be to push hard for the transformation of the Black building industry into a new national African American affordable housing industry.

The need for a fully networked Black housing industry was first broached by Black leadership at the passage of the 1948 Housing Act but never materialized. After the 1986 creation of the Low Income Housing Tax Credit program, there quickly evolved a (virtually all white) national affordable housing industry that went on to build millions of new housing units. Those developers pocketed billions of dollars for construction, development, design, planning, and management. U.S. Department of Housing and Urban Development (HUD) research shows that much of that housing was built in Black spaces and occupied by African American people, yet almost none of those billions of dollars in low-income housing development flowed into or through the hands of Black America's na-



Melvin L. Mitchell's *African American Architects: Embracing Culture and Building Urban Communities*

scent building industry. Imagine the impact had half of those dollars passed through a national Black affordable housing industry instead.

A new Black affordable housing industry must utilize available and emerging tools and resources to radically alter the vast economic disparities between Black America and the rest of America. Some of those tools are included in Senator Elizabeth Warren's American Housing and Economic Mobility Act; Representative Alexandria Ocasio-Cortez and Senator Ed Markey's Green New Deal; a reworked Opportunity Zone legislation inspired by Senator Cory Booker; and coming climate-stabilization legislation. The country is also on the cusp of launching a several-trillion-dollar infrastructure upgrade. An equitable share of those dollars injected into and flowing through Black America-dominated spaces would ensure a very different set of National Urban League *State of Black America* reports by 2030.

The current white-owned affordable housing industry is a helter-skelter collection of several hundred pre-information-age operations. That industry now faces threats

from a rising group of disrupters bankrolled by massive amounts of investment capital from firms willing to bet big on capturing a sizable market share of the U.S. shortage of eight to ten million affordable housing units. These disrupters seek to bring lower costs to affordable housing creation through full integration of the silos of capital, design, and a revolutionized construction industry.

These changes offer tremendous opportunity. A new Black affordable housing industry must emulate the disrupters and take advantage of all new legislative tools.

Development in Black America's Urban Space, 1960s–2020

Since the 1960s, the country has seen hundreds of billions—probably trillions—of public and private sector dollars expended in programs that together amounted to a sort of failed Marshall Plan for Black America: the War on Poverty, the Great Society, the Equal Employment Opportunity Act, the

Model Cities Program, affirmative action, Black capitalism, the Community Reinvestment Act, the Housing and Community Development Act, and so on, ad nauseam.

By the early 1980s, these urban rebuilding activities coincided with the rise of New Urbanism. That movement never carried a hint of racism or hostility toward African Americans, but for a host of reasons New Urbanism—like architecture—was mainly an all-white-people affair, and hundreds of new community redevelopment projects sprung up across the nation, most in big cities, and many on the sites of large public housing projects with predominantly Black and brown populations. New Urbanism was embraced by the HUD initiative known as HOPE VI (Housing Opportunities for People Everywhere). This program, which began in 1992, saw nearly \$6 billion in public funds leveraging even greater amounts of private funds to totally remake “the projects.” The nation's largest, most troubled public housing sites (which were almost always occupied totally by Black or brown people) became prime objects for demolition and were rebuilt at doubled, tripled, or sometimes greater densities as mostly upscale and expensive housing units on the same plot of ground. In this sense, the HOPE VI program was a reincarnation of the 1960s Urban Renewal leveling of communities, neighborhoods, and homes occupied by large swaths of Black America that came to be known as “Negro Removal.”

HOPE VI and affordable housing developers (and their architects and contractors) are virtually never Black or from other underrepresented minorities. Over the past decade I have been witnessing the same affordable housing destruction and HOPE VI redevelopment script being played out across urban America, including in my old neighborhood, the Jordan Downs public housing project in Watts, Los Angeles, and in my adopted hometown of Washington, D.C.

Future redevelopment endeavors must prioritize Black wealth creation, and to understand what this could look like, there are examples that we can turn to.

Revisiting Three Big Black Wealth Creation Initiatives Since 1966

New Cities: Soul City, North Carolina

In 1968, Floyd McKissick stepped down from leading the Congress of Racial Equality to pursue his vision of building a new freestanding city in Warren County, North Carolina. Soul City was envisioned by McKissick as having a full build-out population of 55,000 people on a 5,000-acre tract of land. McKissick insisted that Soul City would be open to all races. He was equally adamant that African Americans would be the dominant planners, designers, builders, and owners of most of Soul City's land and business enterprises.

McKissick and his planners had what they considered to be the perfect model in the planned new town of Columbia, Maryland. Columbia's visionary founder, James Rouse, envisioned a town of 100,000 people of all races living in social harmony in a 14,000-acre development. Columbia met and surpassed those goals. Today, an aeri-

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al view of Columbia’s Town Center and city beyond looks largely identical to the 1968 architectural model of the proposed city. Today’s Columbia is a city of 100,000 whose population is roughly 50 percent white and 50 percent nonwhite, with African Americans making up half of the nonwhite population.

For Soul City, McKissick scraped together a few million federal dollars for initial infrastructure costs, but he was unable to overcome huge obstacles, including the 1973 oil crisis and the racial politics of arch-conservative North Carolina senator Jesse Helms. With no private investment capital commensurate with the money available to Rouse for Columbia, Soul City’s population never exceeded 200. Today, nearly 50 years after McKissick was forced to fold on his dream of building a successful new city in North Carolina, there are tools, conditions, attitudes, new wealth sources, and political power in place that together scream out “somebody needs to try this again!”

New Towns in Town: Fort Lincoln, Washington, D.C.
A 1960s vision of a “New Town in Town” in Washington, D.C., was implemented by Theodore Hagans Jr., a graduate of Howard University’s engineering school. Hagans gained control of a nearly 360-acre parcel of vacant land on the border of Prince George’s County, Maryland, just several miles from downtown D.C. in an area now known as Fort Lincoln. The project’s master plan called for thousands of new homes and apartment units, with a sizable shopping mall, two public schools, ample open space, and recreational facilities. By the mid-1970s, Hagans had become the largest Black developer in D.C. He became the sole owner of all rights to redevelop Fort Lincoln New Town. Fort Lincoln’s population today is majority African American with a growing number of white and other families and individuals.

The project is now being completed under the ownership and executive leadership of Hagans’s daughter Michele Hagans, also a Howard engineering school graduate. Conditions and circumstances today are ripe in many American cities and inner suburbs for the replication of the Hagans family’s vision.

BUY THE BLOCK

The third and quite possibly most important of the example initiatives is a now seven-year-old movement gaining momentum throughout Black America’s cities and suburban populations. This movement’s participants range from the new rich Black athletes, entertainers, media moguls, and high-tech entrepreneurs to the Black working-class poor. The movement is known simply as “Buy The Block,” or BTB.

The initial BTB model was founded by entrepreneur and real estate investor Lynn P. Smith in Cincinnati in 2013. Smith created an African American-owned real estate crowdfunding portal that allows people to invest in local real estate in amounts as low as a few hundred dollars. The idea is scalable from the single house or lot in an

urban neighborhood up to the creation of a new city. A recent high-profile example of BTB is a mixed-use commercial project launched by the late Nipsey Hussle in South Central Los Angeles.

An even more pointed recent example is the initiative of a phenomenally successful (“mainstream”) African American developer, Donahue Peebles, based in Miami. Peebles launched a \$500 million fund from his vast equity capital sources that will provide equity capital to minority-owned real estate developers whose focus is on affordable and workforce housing and related commercial uses. The initiative will leverage thousands of new houses and apartments at combined costs and values exceeding billions of dollars.

Equitable Urbanism

Today it is increasingly becoming common knowledge that the brutal 1921 white race riot that destroyed Greenwood and a dozen other large Black building and wealth-creation undertakings in Tulsa, Oklahoma, served to snuff out Black large-scale building ambitions and culture over nearly the ensuing 50 years. The Urban Renewal and New Urbanism movements of the 1960s to 2020 have been beset by systemically racist policies that blocked any further city-building Black-led initiatives. The period of 2020 to 2040 offers an opportunity to achieve full redress from the prior 52 years of continuing suppression of Black wealth creation: Equitable Urbanism. The only path to achieving truly Equitable Urbanism is through a fully mobilized Black America that actually leads or plays meaningful partnering roles in an urban main street Marshall Plan rebuilding effort. Equitable Urbanism can incorporate and build on the old New Urbanism’s big core architectural idea. There is no need to reinvent that wheel. In rebuilding urban space with the required millions of units of affordable housing and 21st-century physical and cyber infrastructure, Equitable Urbanism must be the indispensable framework used to evaluate any attempts to answer the question I posed: Who will be the builders and wealth-creation beneficiaries?

Melvin L. Mitchell is the author of *African American Architects: Embracing Culture and Building Urban Communities*, published this year, and *The Crisis of the African American Architect: Conflicting Cultures of Architecture and (Black) Power*, published in 2002. He has been a practicing architect in Washington, D.C., for 45 years. He is a fellow of the American Institute of Architects, a past president of the Washington, D.C., Board of Architecture, and former director at the Institute (now School) of Architecture + Planning at Morgan State University in Baltimore (1997–2002). He was a professor at the University of the District of Columbia (1986–94, 2003–14) and James E. Silcott Endowed Chair at Howard University (2016–18). His architecture degrees are from Howard University and the Harvard Graduate School of Design.



Interior of the National Museum of African American History and Culture in Washington, D.C.

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Dazzling Glaze

Steven Holl Architects tames the harsh Houston glare with clever massing and opaque tubular glass.

Architect: Steven Holl Architects
Architect of record: Kendall Heaton Associates
Location: Houston
Construction manager: McCarthy Building Companies
Structural engineer: Guy Nordenson and Associates
MEP engineer: ICOR Associates
Facade engineer: Knippers Helbig Advanced Engineering
Climate engineer: Transsolar
Facade system fabricator: Permasteelisa Gartner
Glazing: Shennanyi Glass
Lighting designer: L'Observatoire International

Houston is a city of contrasts where, because of a dearth of zoning codes, shimmering high-rises dwarf anonymous strip malls and suburban bungalows abut oil refineries. Sandwiched between the Rice University campus, Hermann Park, and a tangle of highways, the Museum District is no less idiosyncratic, even if it is more high-brow in its aspect.

The district itself offers a constellation of high-profile works from big-name architects, including Ludwig Mies van der Rohe, Rafael Moneo, and Lake|Flato at the Museum of Fine Arts, Houston (MFAH) alone. Joining this eclectic bunch at the MFAH is the Nancy and Rich Kinder Building, a 200,000-square-foot museum expansion housing an growing collection of 20th and 21st-century art. Designed by Steven Holl Architects (SHA), the Kinder Building advances a novel solution to age-old problems in this corner of coastal Texas—stifling heat and intense daylight.

Rising on a trapezoidal site, the new wing is a bulwark of light-gray structural concrete and milky concave glass. Seven forecourts—“porous gardens,” per the architects—chip away at the considerable massing, providing much-needed shade at perimeter entry points. The buoyant roofline further leavens the massing and strategically guides natural and diffused light through clerestories into gallery spaces and corridors inside.

“Concave curves, imagined from [tracing] cloud circles, push down on the roof geometry, allowing natural light to slip in with precise measure and quality—perfect for top-lit galleries,” said SHA senior partner Chris McVoy. The clerestories are fitted with adjustable shades (which can be set to modulate or black out), giving curators control in “shaping the gallery spaces organically in a unique, rather than mechanical and repetitive, way,” added McVoy.

The control—or, perhaps, harnessing—of natural phenomena is taken a step further on the building elevations, which are each draped in a semiopaque glass veil. These vitreous screens couple conditions of translucency with depth, an ambiguous materiality that bridges Mies’s dark and trim Brown Pavilion and Moneo’s tough-as-stone Audrey Jones Beck Building. In total, more than 1,000 bent glass pieces are affixed to the Kinder Building, and they come in approximately 450 different sizes—the largest of which reaches a height of nearly 20 feet and spans a width of approximately two and a half feet, with a bending radius of just over a foot.

Early facade prototypes originated in SHA’s fabrication workshop as vinyl and half-translucent acrylic tubes, which pointed to the lamp-like glow and arcing light patterns that glazed cylindrical tubes could achieve. Climate engi-



RICHARD BARNES

The Nancy and Rich Kinder Building rises on a trapezoidal site within Houston’s Museum District.



COURTESY SHA

The design concept for the glass rain screen was to establish translucency with depth. The result is a lamp-like effect of trapped light.

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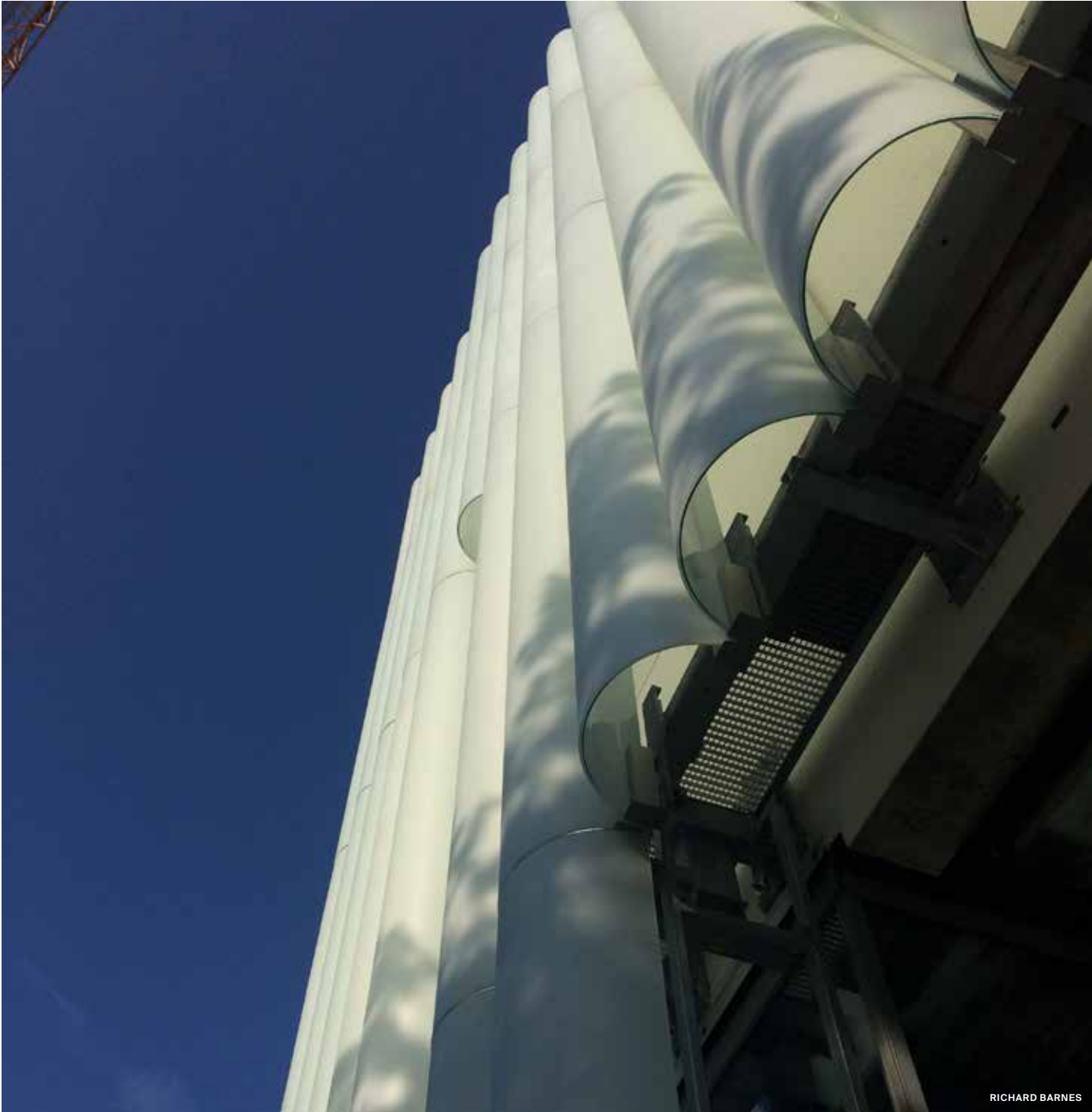
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neer Transsolar was brought on to investigate the ecological implications and potentials of SHA's design concept. In maintaining a 5 percent to 40 percent transparency through acid-etched PVB laminate, the facade effectively reflects solar gain away from the primary concrete structure. Meanwhile, the multi-foot cavity separating the glass and the outer edge of the building promotes natural convection, guiding heat up toward the roofline.

Scaling up the prototypes required resolving difficult details, including where the tubular geometry meets the 90-degree corners of the building. SHA relied on facade engineer Knippers Helbig Advanced Engineering and facade systems producer and installer Permasteelisa Gartner. The architects also closely monitored the fabrication of the tubes themselves, which was no mean feat—it took Shennanyi Glass up to eight hours to individually sculpt and subsequently cool each glass panel. SHA would shuttle back and forth from New York to Shennanyi Glass's plant in Shenzhen, China, and later to Gartner's facilities in southern Bavaria, Germany, to survey full-scale mock-ups prior to their shipment to Houston.

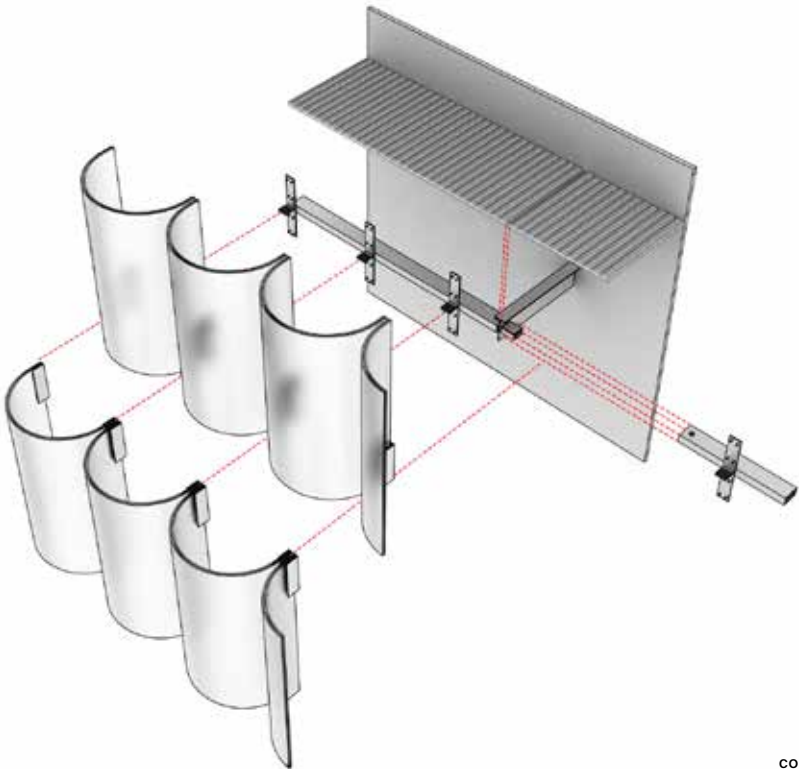
Once on-site, the tubes were affixed to the outer walls of the concrete structure by way of an ingenious system of steel tube outriggers spaced at intervals of nearly 8 feet. "The glass tubes themselves rest on small stainless-steel shelves for dead load support while the lateral support consists of four aluminum clips (one in each corner), siliconed to the back of the glass. The length of these clips varies with glass height and wind exposure," explained SHA senior associate Olaf Schmidt.

The semicircular glass tubes appear to hover above the primary volume, and in their luminescence and stepped castellation at the roofline recall the visual effects of Gio Ponti's Denver Art Museum. While the facade reflects ever-changing daylight and seasonal weather conditions, it remains dappled with shadows from the muscular branches and dense foliage of decades-old Southern live oaks lining the abutting streets. **Matthew Marani**



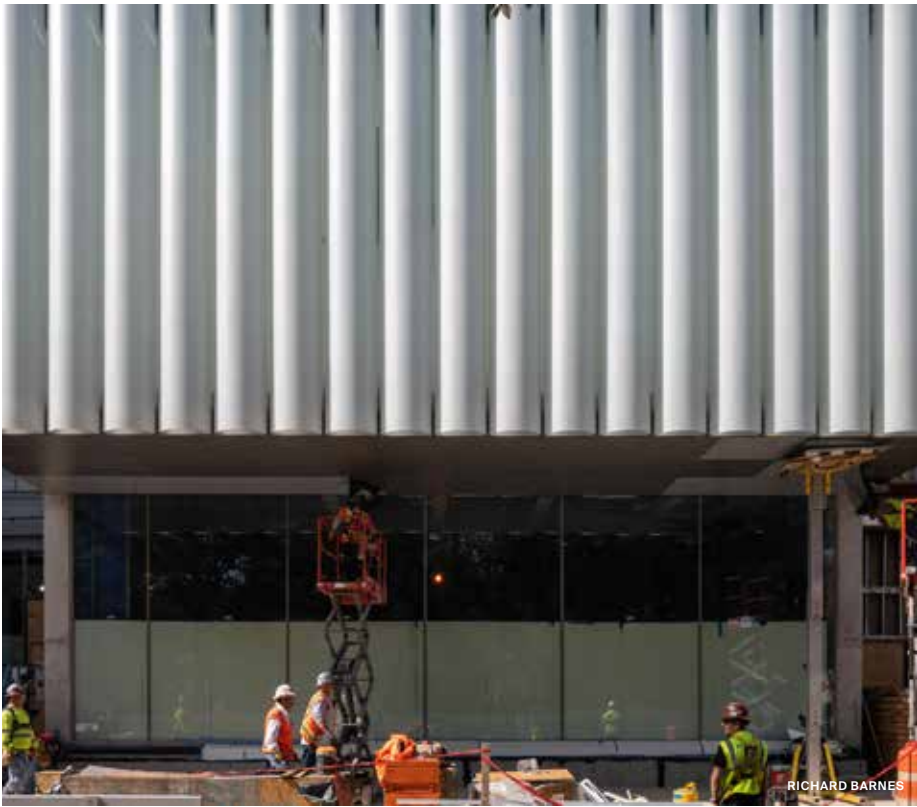
RICHARD BARNES

The custom facade system was fabricated by Permasteelisa Gartner and consists of steel tube outriggers cantilevering off the concrete.



COURTESY SHA

The glass tubes rest on stainless steel shelves for dead load support.



RICHARD BARNES

The structure is draped with a veil of tubed glass, which hovers off of the primary structure.

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Office of Jonathan Tate

The New Orleans-based firm talks hurricanes, homes, and hotels.



Architect Jonathan Tate was living and working in Memphis when Hurricane Katrina ensnared New Orleans. Instinctively drawn to the Big Easy, he later moved there for the opportunity to observe the reconstruction effort and investigate architecture's role in it.

"Embedded in the practice from the beginning was a desire to look around and postulate," said Tate, referring to the namesake office he founded in the Lower Garden District in 2011.

Indeed, Office of Jonathan Tate (OJT) brings a probing, "investigative" (the word and its cognates have a special resonance for the

small firm) spirit to wide-ranging issues relevant to New Orleans. Its projects, which span everything from low-rise housing to planning initiatives, often combine research with philanthropic funding and aspects of community building.

But however diverse its portfolio, OJT has become virtually synonymous with the Starter Home* series it has developed over the better part of the past decade. These contemporary takes on speculative urban infill were awarded the 2018 AIA National Housing Award and the 2019 AIA National Honor Award (for 3016 St.

Thomas and No. 4-15, Saint Thomas/Ninth, respectively), and cemented the firm's selection for the 2020 American Academy of Arts and Letters Architecture Prize back in April.

"Our investigations started off with a very purposeful [question], 'How can we knock down barriers?'" said designer Maggie Lloyd, alluding to OJT's first foray into the Starter Home* series six years ago. In turn, the office gained insights—about market dynamics, say, and architecture's complicity in pernicious socioeconomic narratives—that "have permeated everything else that we do," Lloyd added.

Recently, OJT has been expanding the scope of its practice to the surrounding region and designing spaces for experimental nonprofit development models. Seeing New Orleans redefine itself after Katrina helped Tate and his team (which currently numbers nine) understand that every city is always going to be rebuilding in some way. "It allowed us to be more adaptable to malleable urban situations," Lloyd said. **Kate Mazade**

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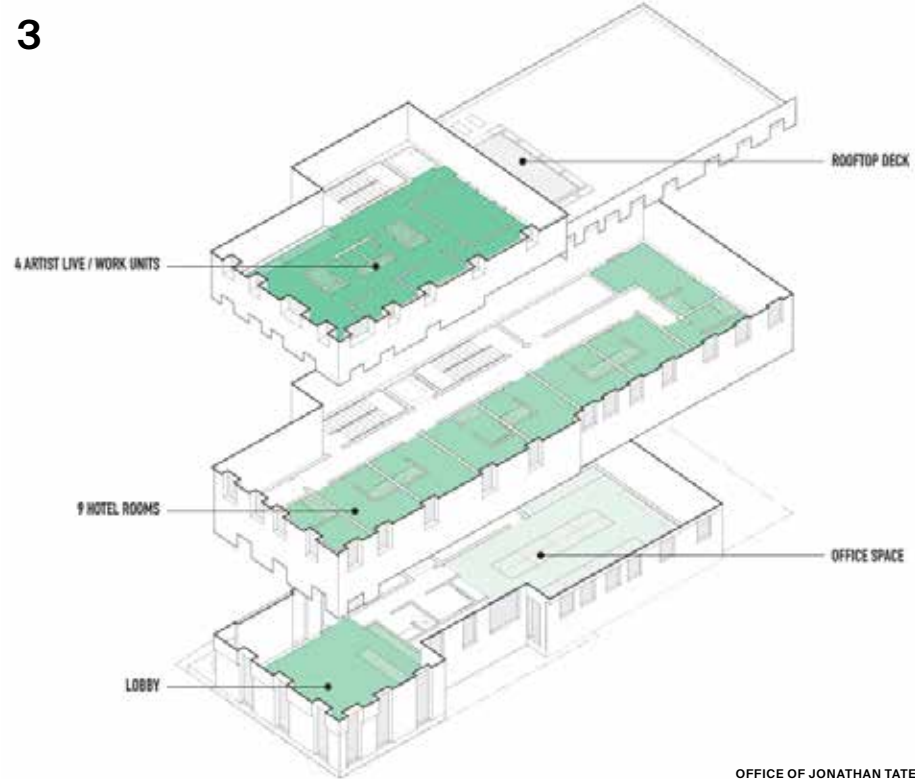
1 3609-13 S. Saratoga Starter Home* (2019)

Like the two previous “generations” in OJT’s Starter Home* project, the S. Saratoga Street homes are a contemporary twist on affordable speculative housing aimed at first-time homeowners. The new infill units re-subdivide irregular New Orleans lots and incorporate contextual cues into their architecture for added depth. Developed in partnership with the real estate investing platform Small Change, the nation’s first equity crowd-funded single-family units work to address housing inequalities, Tate said. The projects, he added, examine “the economics around housing” and consider “why thoughtful design wasn’t available in a speculative market.”



2 Ground Notations (2020)

Created as a part of the public art installation Fertile Ground in Jackson, Mississippi, *Ground Notations* works to reconceptualize land use and educate residents about food insecurity. The site-specific installation inscribes industrial farming patterns across the historic Smith Park in the heart of the city. The geometrically ordered row crops, long bench seating, and ground mural were completed in April, but the coronavirus pandemic has pushed the official opening of the project and the corresponding Fertile Ground Expo to 2021.



3 Magazine Street and Travelers Hotels (2020-)

In addition to affordable housing and public art, OJT has been developing a new operational model for boutique urban hotels that leverages local artist communities toward boosting small-town tourism. “It’s a play on an affordable housing model wrapped around a business model,” Tate said. Travelers Hotel in Clarksdale, Mississippi, and the soon-to-be-completed Magazine Street hotel in New Orleans are managed by artist co-ops, whose members are afforded apartments and studio spaces above the guest rooms.

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PLACE-BASED DEVELOPMENT

Community can be tricky to describe, let alone define. It always maintains a strong connection to place, be that a concrete high-rise in the Toronto suburbs or a public housing complex in Louisville’s West End, but that conceptual connection is too often abused. Developers looking to cash in sell promissory notes for community even as they rip out its foundation. The following stories both underscore the importance of place and lament the ravages of displacement. They also examine architectural agency and what it entails, outlining a model of stewardship counterposed to expertise, political engagement to resignation. Building communities, not just buildings.



COURTESY OF THE ARCHIVES OF UNO PRII

Postwar suburban growth in and around Toronto often took the form of residential “towers in the park.” Some, such as Uno Prii’s The Vincennes, were designed by high-profile architects.

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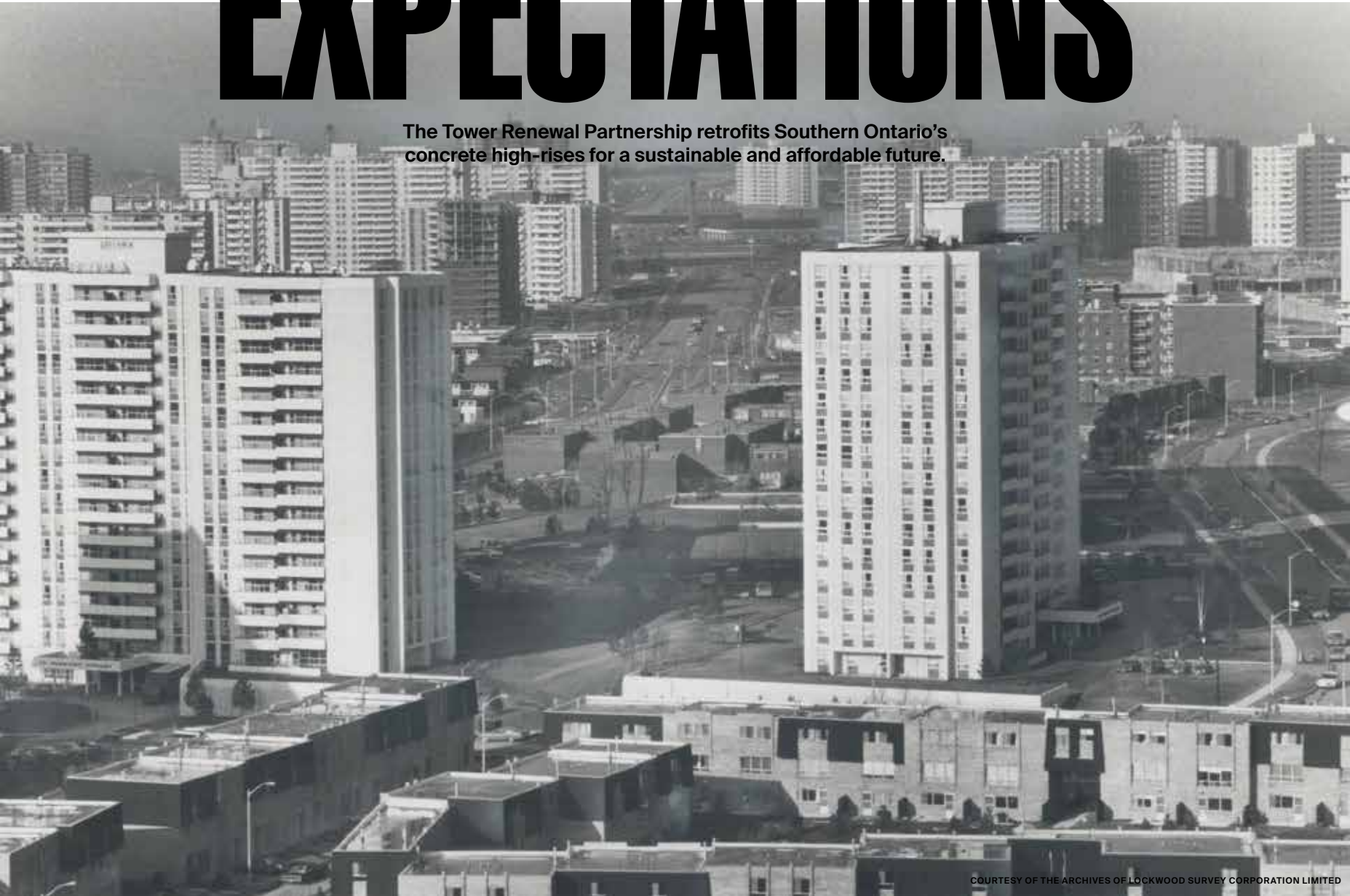
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RAISING EXPECTATIONS

The Tower Renewal Partnership retrofits Southern Ontario’s concrete high-rises for a sustainable and affordable future.



COURTESY OF THE ARCHIVES OF LOCKWOOD SURVEY CORPORATION LIMITED

The Greater Toronto Area is home to a vast heritage of concrete housing blocks, many of them built between 1960 and 1980.

In the decades following World War II, countries across the globe embarked on campaigns of residential construction, and for reasons of economy and time, many reached for an off-the-shelf, modernist solution: “towers in the park” ringing an existing urban core. Few municipalities were as gripped by this building fever as the Greater Toronto Area, which eventually amassed the greatest number of concrete housing blocks outside of the former Eastern Bloc—nearly 2,000 altogether, with approximately one million inhabitants.

Once heralded as the solution to the housing problem, this building stock is approaching the end of its life span. The high-rises are not uniformly dilapidated, but most are energy hogs. Poor design decisions betrayed a neglect of the region’s extreme climate that, coupled with decades of deferred maintenance, left vital building systems vulnerable. Yet their apartments are enviable by today’s meager standards, and being home to so many—most recently minority and refugee groups—they cannot be easily replaced.

For architect Graeme Stewart, a principal of the Toronto firm ERA Architects, the towers are “a crucial asset within the affordable housing infrastructure of our city.”

ERA Architects has, alongside various partners, been on the front lines of saving this oft-maligned building heritage and upgrad-

ing it to Passive House standards. With SvN Architects + Planners, it founded in 2009 the Centre for Urban Growth and Renewal, a cross-disciplinary, nonprofit organization focused on improving livability and sustainability across rural, suburban, and urban environments. The Tower Renewal Partnership, a related venture dating back to the same time, is supported by a broad range of public and private sector organizations, such as the governments of both Toronto and Ontario, climate engineer Transsolar, and antipoverty foundation Maytree, among others. This latter initiative has consulted on and overseen the rehabilitation of more than 100 towers, or 21,500 units, in the region and played a critical role in developing comprehensive neighborhood planning and infill guidelines.

“We are looking at that interesting dynamic in how you assign value to an aspect of heritage [with] which many have a difficult relationship,” said Stewart. In the time since the partnership’s launch, “the discourse shifted from preserving architecture to preserving housing,” he added.

Unlike the diffuse, car-centric morphologies typical of postwar North America and especially the United States, suburban development in the Greater Toronto Area followed the European template of high-rise urban nodes linked to a metropolitan center by rail lines

and ribbons of highways. These satellite cities loosely adapted Ebenezer Howard’s turn-of-the-century Garden City, only stretched vertically and less likely to maintain the requisite green belts. Peaking in the 1970s, Toronto’s building spree was partly a consequence of metropolitan regional consolidation, a decade-long process completed by 1967. But it was also impelled by robust regulation and private financing, not to mention an explosive growth in the population, which tripled from one to three million in the relevant time period. (Today, the Greater Toronto Area boasts more than six million residents.)

The towers were initially marketed to middle-class consumers, but shifting perceptions about the good life led their intended inhabitants to take up quarters in walkable and mixed-use neighborhoods. Gradually, the concrete stalks morphed into bastions for working-class immigrant and refugee communities. Yet, as happened elsewhere in high-rise suburbs, such as the banlieues of Paris, disinvestment and neglect of these peripheral communities eroded the quality-of-life expectations modern housing had raised in the first place.

The desire to reverse this arc, coupled with the immense scale of retrofitting Ontario’s postwar housing stock, has revealed priorities that overshadow the architectural, explained

Ya’el Santopinto, an ERA associate who leads the center’s research initiatives. “After a half century of use there are a range of demands on these buildings. The first is failure and deterioration; the second is adaptation to new expectations for housing quality,” she said. “Our approach is driven more by a comfort metric.”

This was especially true of ERA’s deep retrofit of the Ken Soble Tower in Hamilton, Ontario, 40 miles south of Toronto, into an affordable housing development for seniors. The project, which is expected to meet EnerPHit Passive House standards when it opens next year, is the most comprehensive in history of the Tower Renewal Partnership.

Built in 1967 on a former urban renewal site just off of Lake Ontario, the Ken Soble Tower is the oldest residential high-rise in the portfolio of the city’s housing authority, CityHousing Hamilton. The design of the 18-story tower was, to put it politely, massively flawed; for example, its uninsulated white brick facade, exposed concrete floor plates and extruded balcony slabs, and single-glazed windows were prone to thermal bridging from the very beginning. Deferred maintenance, meanwhile, left the interior and building systems in a degraded state. In the early stages of the retrofit, the ERA team encountered significant flaws in fire barriers between units, mold infestations,

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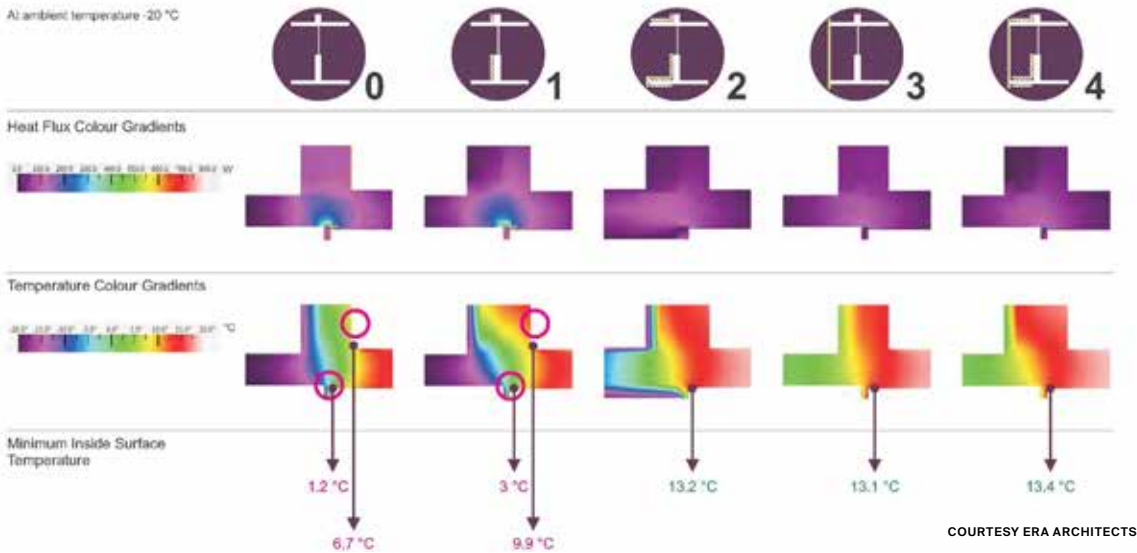




The Ken Soble Tower was constructed in 1967 as part of a larger urban renewal scheme.



The entire facade was treated with a fluid applied air barrier and a layer of fiberglass insulation.



The tower was rife with thermal bridging flaws, which required extensive analysis to remedy.



The windows bays were slightly expanded and replaced with triple-glazed units.

and poor ventilation and ductwork. The architects—working with the building envelope and structure engineering firm Entuitive and Passive House specialists from JMV Consulting—began with the exterior. They treated the existing glazed brick facade and exposed floor slab with a fluid-applied air barrier and installed a 6-inch-thick layer of fiberglass insulation. Additionally, the existing balconies were shorn off and replaced with Julietts, and all of the windows were swapped out for triple-glazed units. Modernizing the tower interior was no less complex and required the removal and replacement of mechanical and plumbing systems. ERA refurbished and expanded the HVAC ductwork, connecting it to a new centralized ventilation system. And for good measure, it lined the inner face of the perimeter wall with a 4-inch-thick layer of fiberglass insulation.

In total, project architect Santopinto estimated that the intervention will reduce the tower's greenhouse gas emissions by a staggering 94 percent. And, importantly for the well-being of the soon-to-arrive senior residents, the refurbished units and new common areas are sufficiently insulated to remain warm or cool should the building systems fail. "We tackled this by not just aiming for today's targets, but also at 2050 targets based off of climate data and projections three decades from now," said Santopinto. Unlike in previous Tower Renewal retrofits, the Ken Soble Tower was vacant throughout the overhaul, allowing the architects far greater flexibility to reinvent the building's infrastructural core and cladding. Even if those ideal circumstances will not be present for every potential retrofit, there are still significant sustainability implications in replicating

such a program across Canada. According to the Tower Renewal Partnership, there are approximately 771,000 households in the country living in degraded postwar high-rises that consume over three million tons of greenhouse gases on an annual basis. If each tower were subject to the same rigorous overhaul as the Ken Soble Tower, that figure would be cut by roughly 90 percent, to a consumption rate of 320,000 tons per year. The affordable housing crisis and the increasingly urgent call to action against climate change are not particular to Ontario or Canada; both are conditions found in cities across the United States and the world. ERA principal Stewart noted some progress on the former front, even as he pointed to the lingering threat of political deadlock. "Housing is an entirely different issue than it was 15 years ago, and a program providing decent

and good housing is now widely appreciated. At the same time as we initiated the Tower Renewal Partnership, five heritage-protected housing blocks came down. These structures are vulnerable politically." Indeed they are: Since the demolition of St. Louis's Pruitt-Igoe housing projects, completed in 1976, the United States has continued to destroy and neglect this crucial asset of the country's metropolises—many of which were constructed on the ruins of dense urban neighborhoods—leaving approximately two million residents in a state of precarious existence and worsening circumstances. The Tower Renewal Partnership provides an ambitious and inclusive road map that reappraises the social value of this disregarded but immense segment of architectural heritage, and prepares it for the future. **Matthew Marani**

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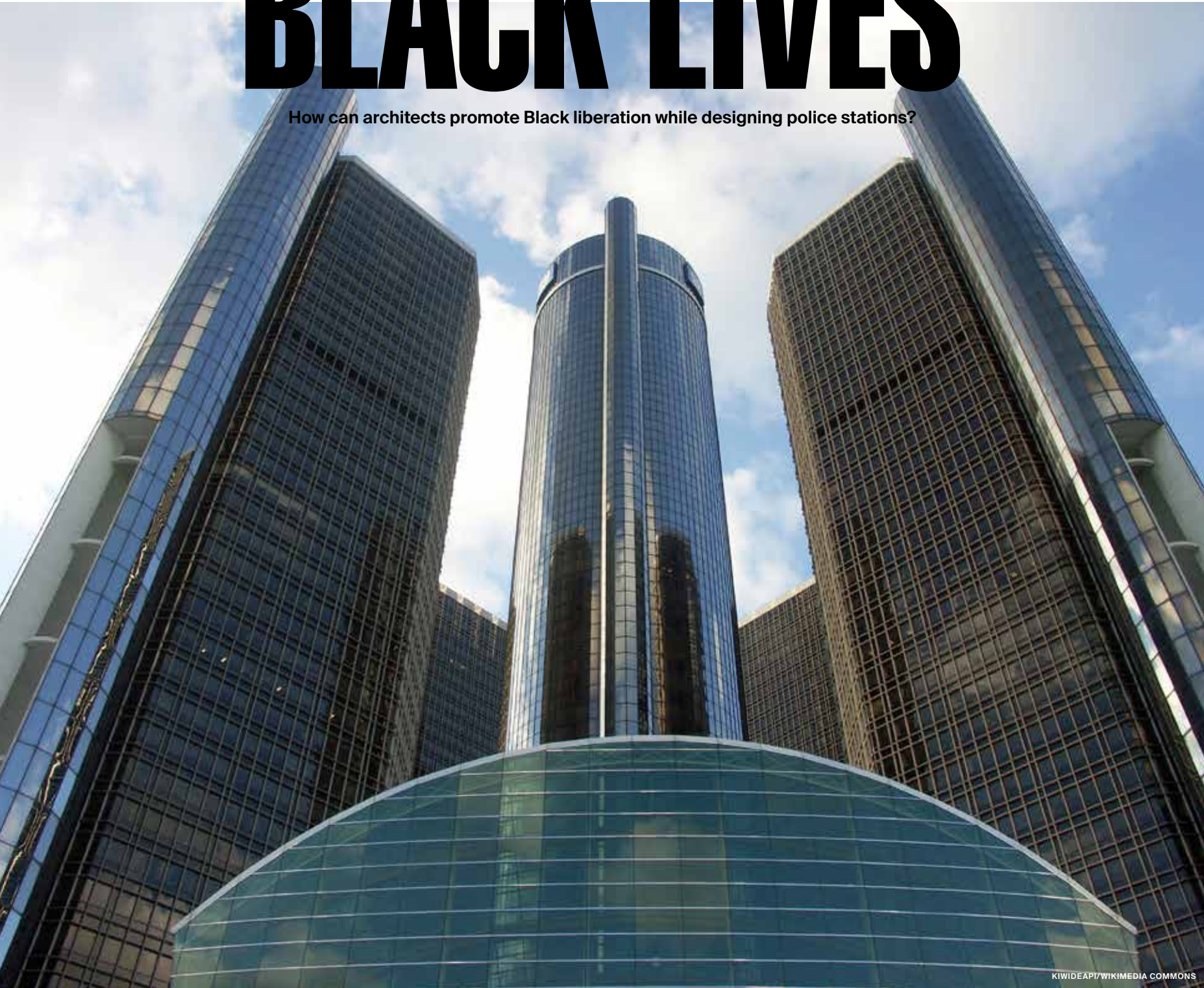
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SUPPORTING BLACK LIVES

How can architects promote Black liberation while designing police stations?



September 5 marked the 100th day since Detroit protests against racial injustice and police brutality began in the wake of George Floyd's death.

Over the past summer, we have seen a litany of public statements against racism and in support of Black lives from companies that have never before taken a race-related public position. My employer, SmithGroup, one of the largest architecture firms in the country, denounced “the continual dehumanization and compromised safety of communities of color.” This statement brought out a visceral sense of irony within me as I protested against police brutality in front of the Detroit Public Safety Headquarters, a SmithGroup-designed project.

As I watched dozens of cop cars released from the building, headed to assault protesters and arrest over 100 peaceful demonstrators, I wondered, “How can you support Black lives but also design police stations?”

Angela Davis said, “If we want to imagine the possibility of a society without racism, it

has to be a society without prisons. Without the kind of policing that we experience today” SmithGroup and many other firms have decided to “reject any work in planning and designing jails, detention centers and prisons.” But this is not enough.

The American Institute of Architects still supports designing prisons. Its code of ethics, according to its former president Helene Combs Dreiling, “isn’t about what architects build.” Individual firms have had to stand against designing prisons and detention centers. But when city governments invest over a third of their funds into the police system, how can firms turn down high-profit work for multimillion-dollar police stations?

Shortly after SmithGroup released its statement, one of the firm’s Black designers resigned after he was tasked to work on the Kenosha County (Wisconsin) Civic Campus, a

set of buildings that will include detention and jail facilities, and after learning that his firm designed the Detroit Public Safety Headquarters. In an interview with the *New York Times*, he said, “These project types are the literal structures of structural racism against black people in the United States.” In response, SmithGroup office director Gregg Calpino explained to the *Cap Times* that the Kenosha project focused on repurposing existing buildings with holding cells to support social services, and that the firm’s work with police and court facilities was limited.

Of course, there was no acknowledgment of Kenosha County having the highest incarceration rates of Black people in Wisconsin, or the high Black/White ratio of prison admissions there. How can this be anything other than an attempt to deny our own accountability in the greater narrative that these facilities play

in the mass incarceration of Black people?

Is it possible to design a police station so equitable, sustainable, and fitted with social services that it becomes an asset and increases the sense of safety for a community? As architects, we often idealize the power of buildings, believing that our design prowess can contribute to a positive culture of fairness and justice. But unless architects serve a client whose value system is aligned with their own, their only influence is in the physical and spatial qualities of the structure; how the building is used is out of their control.

In 2014, SmithGroup designed the new Detroit Public Safety Headquarters, which “sought to create a national model for public safety integration” and houses “police, fire, homeland security, a state-of-the-art forensics lab, information technology services and more.” The building was lauded for being LEED

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IN ADDITION TO STANDING AGAINST WORK THAT CONTRIBUTES TO RACISM, WE NEED TO INTENTIONALLY FOCUS ON DESIGNING WORK THAT IS ANTIRACIST.

Silver and saving taxpayers “tens of millions of dollars” by repurposing an existing casino, and it even won an AIA Detroit Honor Award.

I have no doubt the firm’s intentions were good; after all, we often hear, “If we don’t design it, someone else will.” But why wasn’t the Public Safety Headquarters atomized as smaller, approachable community centers within the neighborhoods? Why was it designed as an unapproachable fortress in downtown Detroit, where parking is difficult, navigating the far-removed entrance is cumbersome, and the perception of the building is more of a complex than a community asset? The Public Safety Headquarters cannot “create a national model for public safety integration” when it has become a storage facility for military-grade equipment, surveillance, and hundreds of cop cars.

Over the past decade, Detroit’s Black and Brown communities have been stripped of housing, healthcare, education, and recreation. Meanwhile, 25 percent of the Detroit General Fund spending for 2019 went to the police (\$294 million), which has fortified policing in these neighborhoods. This is both a response to the crisis created by stripping away social services and a for-profit method to replace slavery through the mass incarceration of Black lives in prison labor camps, which have become an \$80 billion industry. In other words, the police system as it stands today was created to replace slavery. The system is not broken; it’s working exactly as it was designed.

The situation becomes even more oppressive given the fact that 87 percent of cops live outside of the city of Detroit, creating a dominant/subordinate dynamic between White cops and Black and Brown residents, where the cops, who are unfamiliar with the residents, are trained to treat each encounter as a potential threat. These 1,892 city employees take their paychecks, pensions, and retirement funds outside of the city and into the suburbs.

If we take this into consideration, along with the history of redlining, the erasure of Detroit’s Black Bottom and other Black neighborhoods, and the presence of gated communities, we begin to understand what W. E. B. Du Bois described as “double consciousness,” where Black people have to continuously monitor how their presence is perceived by White people. Any act of joy or a glimpse of

entitlement and rights by Black people, such as dancing or bird-watching, sometimes leads to violence by police and White vigilantes.

Black people are constantly monitored by thousands of cameras across Detroit through a faulty, racist surveillance system that costs millions of dollars (with its technology housed in the award-winning Public Safety Headquarters). Black people have been arrested and held in jail without explanation and for no reason, as we recently saw with Robert Williams and Michael Oliver.

Even though Detroit police chief James Craig has said that his department has added layers and protocols to the system, its software misidentifies Black people up to 100 times more frequently than White people, and gets it wrong 96 percent of the time. The response by the Detroit Police Department (DPD) is to use facial recognition software only for violent cases. But this means that the risk and impact of false imprisonment is much worse, as the punishment for violent crimes is more severe.

The extent of overpolicing and brutality against Black and Brown bodies is unimaginable. DPD has killed nine (possibly ten) people since 2015 and has used illegal chokeholds on peaceful protesters; cop cars have plowed through protesters after the cops blocked off the protesters’ route back to their own cars. According to *Deadline Detroit* reporter Violet Ikonomova, “The city paid out \$19 million in police misconduct settlements between 2015 and mid-2018, and 64 officers were criminally charged between 2016 and 2018 for incidents on and off the job.”

This is unsurprising given the extensive militarization of Detroit police through the 1033 program, in which surplus military equipment is donated to local police departments. This equipment includes mine-resistant vehicles, riot-training suits, helicopters, and M16 semiautomatic assault rifles.

The Detroit Board of Police Commissioners, a citizen group that provides oversight for the DPD, has refused to hold the department accountable. Although many residents do not want to live in a lawless city, the current DPD is the epitome of lawlessness.

Yet, as architects, we tell ourselves we can solve these systemic issues by focusing on designing buildings and places, believing that if we make them beautiful, sustainable, and functional, they will benefit our communi-

ties. We saw that with the push for open and complete streets during the spring of 2020, when many streets were empty because of COVID-19. We mistakenly believed that bike lanes, outdoor dining, and open streets would improve the economy by helping businesses to reopen.

Instead, this rushed approach threatened the lives of Black and Brown essential workers, the same workers who carry the highest health risk from COVID-19. These same open streets were later littered with rubber bullets and tear gas canisters used by officers on people protesting against police brutality.

In addition to standing against work that contributes to racism, we need to intentionally focus on designing work that is antiracist. This goes beyond community engagement by centering and representing Black, Brown, and Indigenous people in the work we do. A great example of this is Design as Protest (DAP), a Black-led organizing effort that is calling on firms and designers to work collectively to end the weaponization of architecture and urban planning as tools of oppression.

Since our field is directly tied to how communities are designed, our civic duty is to enlighten our local municipalities on the importance of investing in buildings and city designs that promote the liberation of Black and Brown people: high-quality affordable housing, accessible healthcare and education, and truly public spaces where their bodies aren’t policed.

While I appreciate the steps that SmithGroup and other firms have taken to encourage their employees to read books, participate in committees, and have “open discussions,” this is an insubstantial and misguided response. These tactics are glossing over the real issues of how ingrained racism is in our society and our industry. We don’t need to relegate antiracist efforts to a committee in order to realize that we need to hire, promote, and equitably pay Black designers.

To truly moderate these discussions and assess the validity of projects and clients, we need the help of trained agencies and collectives. As architects and engineers, we are not equipped to moderate or experienced in leading discussions on race. We are not critical race theorists, psychologists, or social scientists. This also applies to how we can make our design processes more collaborative and interdisciplinary, extending our usual

list of consultants to include critical race theorists and social scientists. These experts can help promote equity and inclusion, which could open up new possibilities for socially guided projects with clients that have aligned values and aspirations.

My hope is that we can shift our work into more intentional strategies that focus on promoting the liberation and joy of Black people and marginalized communities. Since most firms are led and owned by White people (typically White men), we need to both recognize our limitations in our identities, experiences, and training, and seek diverse consultants who are trained to help us remove our bias, decenter ourselves, and work together in empathy. Through this we can begin to fully manifest the reparations needed to fix the immense disparities found in both our profession and in Black and Brown communities.

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Laura Walker is an associate at SmithGroup and cofounding principal of Other Work, an arts-based experimental group focused on architecture and city-making that promotes liberation and justice for marginalized communities through spatial agency.

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The trill of the whistle
Squeaking rubber against wood
A ball sailing skyward
In thunderous silence.

This is where mere mortals take flight
Passions ignite
Shots are set
Bonds are formed.

From this rail
I taught a child to love the game
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THE RENT YOU PAY

Contestations over redevelopment in Russell, Kentucky, reveal a historical pattern of prioritizing property over people. By Hilary Malson

Breonna Taylor lived ten miles from Russell, a neighborhood in the West End of Louisville, Kentucky. But she was killed in her home on the night of March 13 by Louisville Metro Police Department officers, who—according to a complaint filed by the Taylor family—were tasked with protecting the local government’s widely publicized investment in Russell’s redevelopment by eliminating all perceived obstacles to this vision of progress. The officers did more than comply.

Architects, planners, designers: Those of us who identify as spatial practitioners might see ourselves as occupying a particular position within hierarchical processes for changing urban places, as I did when I worked full-time in community development. We don’t often initiate conversations on what gets changed. Rather, as consultants, staff, and contractors, we receive briefs from our clients—developers, property owners, the state. From these, we create plans and designs; we organize and facilitate discussions with stakeholders; we conduct legal research, offer technical guidance, and advise on best practices. Yet when we limit our contributions to advisory roles—when we simply comply with the wishes of others—we cede our power. Our professions are political. With whom are we aligned? Whom do we serve?

Though gentrification in northern and western cities dominates national headlines, it’s a Southern story as well—and a particularly disconcerting one, given the centuries that Black people have struggled to survive on southern soil. The names of many Black neighborhoods under threat of displacement, such as Freedmen’s Town in Houston and Miami’s Liberty City, hint at their origins: Many Black neighborhoods in southern cities today were established by formerly enslaved people, who built sanctuaries within hostile territory where Black communities might flourish. The separate-but-adjacent siting of these neighborhoods relative to revitalizing old urban downtowns has rendered them especially attractive to investors, eager to gain an outsized profit from the artificial devaluation of property in Black neighborhoods.

In Louisville, the neighborhood that came to be known as Russell was initially devel-

oped during Reconstruction as a streetcar suburb for affluent white households, but by the century’s close it had evolved into a Black community. White residents had moved on to newer tracts across town and Black people of many class backgrounds had moved in. By the early 20th century, Black-serving institutions like Central High School, the Western Colored branch of the Free Public Library, and the Chestnut Street YMCA, as well as service organizations like the Louisville Central Community Center (LCCC) took root alongside numerous churches, shops, and nightlife/entertainment venues. This hive of activity earned Russell the moniker “Louisville’s Harlem.” Yet the West End’s status as the Black part of town was also reinforced through explicitly racist public policy and urban design. Racially restrictive covenants banned nonwhite people from living in many East End developments in the 1920s; existing housing was razed to build Beecher Terrace (one of Kentucky’s first all-Black public housing developments) in the 1930s; and 9th Street was expanded into an expressway in the 1950s to create a barrier separating downtown from Russell and the rest of the Black West End. By the 1960s, progressive reforms, including public school desegregation and the Fair Housing Act, changed the letter of the law, but white flight to previously restricted areas and new suburbs—aided by legally inherited wealth and abetted by illegal practices like racial steering—cemented the spirit of spatial segregation in Louisville.

Contestations over redevelopment in Russell underscore Kentucky native bell hooks’s demand to foreground working-class people in Black struggles for spatial justice. As she writes in her essay “Black Vernacular: Architecture as Cultural Practice”:

“Many narratives of resistance struggle from slavery to the present share an obsession with the politics of space, particularly the need to construct and build houses. Indeed, black folks equated freedom with the passage into a life where they would have the right to exercise control over space on their own behalf, where they would imagine, design, and create spaces that would respond to the needs of their lives, their communities, their families.... [Yet] few scholars theorize black experience from a standpoint that centralizes the perspectives of poor and working-class folks. To ignore this standpoint is to reproduce a body of work that is neocolonial insofar as it violently erases and destroys those subjugated knowledges that can only erupt, disrupt and serve as acts of resistance if they are visible, remembered.”

Today, Russell is one of the city’s poorest neighborhoods. A 2017 study of Russell conducted by the University of Louisville and United Way noted that the median income for working residents was \$17,264 per year and the unemployment rate was nearly 30 percent. (By comparison, the annual median income countywide was \$48,695 and the unemployment rate was 8 percent.) Furthermore, the same study noted that 53 percent of Russell’s tenants were rent-burdened, meaning they

spend more than 30 percent of their income on rent. In the past decade, the city government has responded to local poverty by directing \$1 billion—amassed from federal Department of Housing and Urban Development (HUD) grants and private investors—to projects it hopes will catalyze economic and community development throughout the West End.

Though most of my calls to people on the ground in Louisville went unreturned, the public record is clear: These revitalization initiatives have caused much concern among community members for using displacement as a mechanism for development. In their complaint, the Taylor family calls out the Louisville Metro Police Department (LMPD) for vacating residents from several Russell houses by whatever means necessary. The family argues that specific houses—including the one that LMPD alleged Breonna was connected with—were targeted as obstacles to a mixed-use development comprising new luxury housing, a cafe, a fitness center, and an amphitheater. (LMPD denies the validity of this claim.) Vision Russell, a recently established redevelopment coalition and the one singled out in the Taylor family’s complaint as complicit in displacement-oriented development, lists dozens of neighborhood-based organizations as community partners, but leaders of these very same organizations have expressed concerns regarding the disruptive consequences of redevelopment. As Kevin Fields, president and CEO of LCCC, recently told *Louisville Magazine*, there is a pattern of community-based institutions in Louisville disappearing as neighborhoods receive an influx of multimillion-dollar redevelopment grants.

Meanwhile, the 758 housing units at Beecher Terrace, the neighborhood’s oldest public housing project and the epicenter of many redevelopment and displacement struggles, have been razed, and the property’s redevelopment is underway. Rather than having a guaranteed right of return, previous residents will have merely preferential treatment in applying for one of the 640 units in the new housing development. Displaced Beecher Terrace households that are ineligible to return to the site have sought support from the Black Lives Matter (BLM) Louisville Housing Team. As Chanelle Helm, cofounder of BLM Louisville, remarked in a recent interview with WHUR, “They just displaced and racially banished an entire community out of a project, and now they’re utilizing a [HUD] Choice Grant to rebuild that area.... Calling [this] revitalization...is really a joke.”

Root Cause Research Center (RCRC), an autonomous, Louisville-based institution committed to analyzing data on race, property, and inequality to equip grassroots groups, including BLM Louisville, with solid evidence to support their organizing, argues that the city’s social and spatial orders are structured through what it defines as “plantation capitalism.” The theory, according to RCRC, holds that “descendants of planter families maintain political and economic dynasties largely by keeping Black workers in extreme poverty, landless, and without political power through

extractive policies and police terrorism.”

As the center’s extensive research on property ownership in Russell shows, only 18 percent of land in the neighborhood is owned by Russell residents; instead, their meager incomes are extracted to build wealth in other communities, which further hinders the neighborhood’s own economic self-determination. Despite more than a century of the predominantly black residents of Russell stewarding the land and creating community there, they remain landless, and the consequences of lacking secure housing tenure are dire. When I interviewed Joshua Poe about housing justice in Russell, the Louisville-based urban planner and RCRC co-principal investigator said that roughly 100 families are unaccounted for since the demolition of Beecher Terrace began in the summer of 2018. “No one’s talking about the 100 families that are missing, who have fallen through the cracks during relocation,” he lamented. In racially divided cities like Louisville, missing families and lives cut short are the cost of development that prioritizes property over people.

According to the AIA’s Code of Ethics section on Obligations to the Public, members are expected to “promote and serve the public interest in their personal and professional activities.” In design and development matters in low-income Black neighborhoods, spatial practitioners must recognize that claims to place for low-income Black people have historically been insecure. Promoting and serving the public interest should redress past harms, not perpetuate them. For example, spatial practitioners could prioritize Black tenants’ lives by refusing to work on projects where properties were vacated via eviction. As the Louisville-based Metropolitan Housing Coalition recommended in its 2018 report “Involuntary Displacement,” we could seek out collaborations with neighborhood-based, Black-led tenant organizations through which our services might be of use; these services could include advocating for strengthened tenants’ rights, or facilitating land and capital acquisition to create permanently affordable housing through cooperatives and land trusts. After all, in the words of Muhammad Ali, the West End’s most famous resident and native son, “service to others is the rent you pay for your room here on Earth.”

The West End is the hub of the Black community in Louisville, and a community is both spatial and social. While Breonna Taylor was not a resident of the West End, she maintained some degree of connection to it. She should be alive today, but her Black life held insufficient value to professionals who carried out, and indeed, exceeded orders.

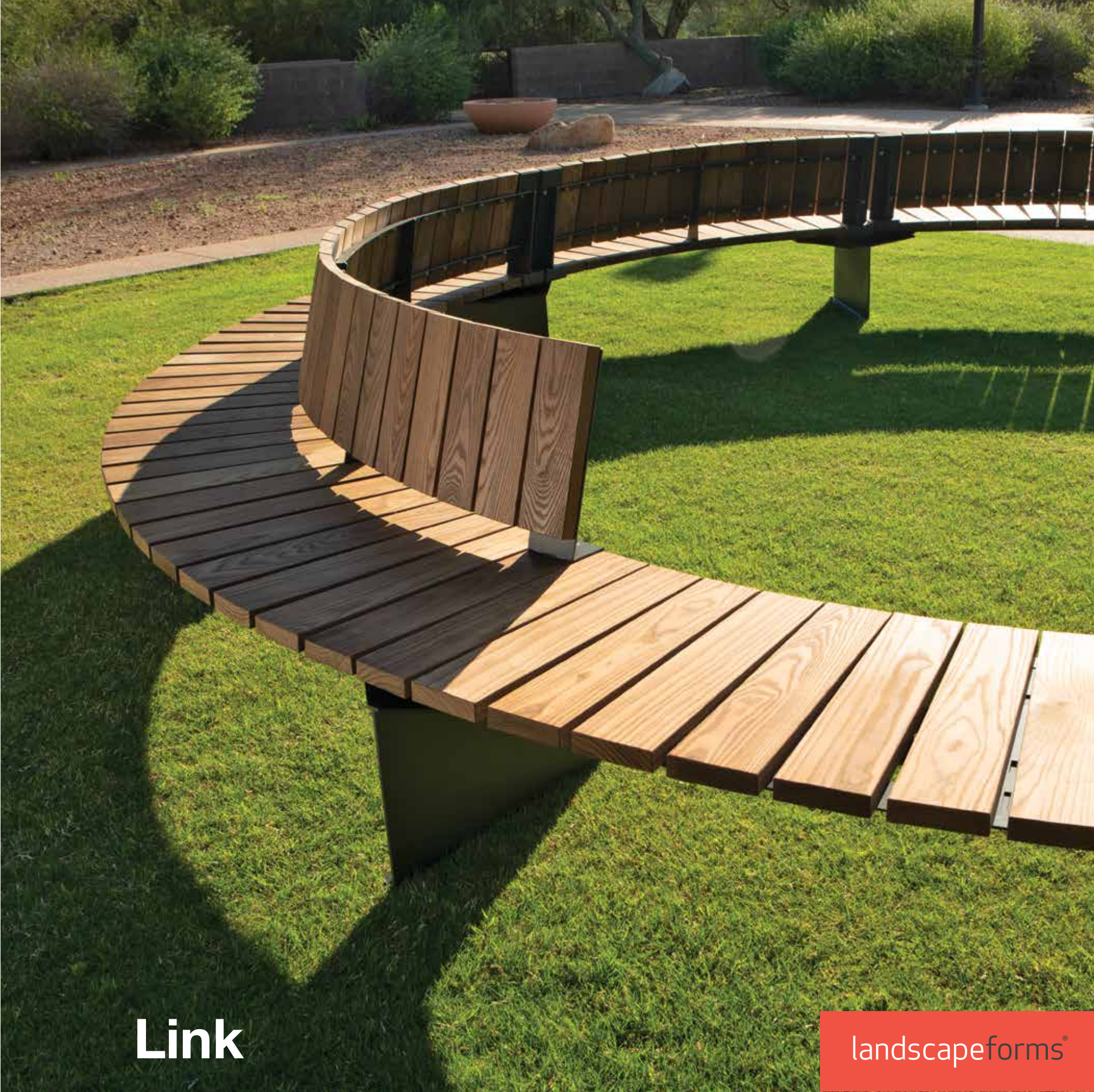
Hilary Malson is a scholar of urban planning and geography. Her professional experience is in community development, community organizing, and public history, and she currently researches housing justice and planning history as a doctoral student in urban planning at UCLA.

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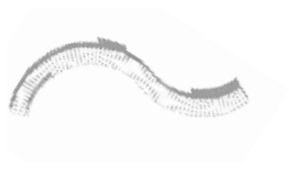


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BILL TIMMERMAN

Our annual glass supplement is a celebration of innovative manufacturing, with a particular focus on products that improve building performance and safety in compliance with updated codes. We dug into new standards and scoured the nation for industry leaders thinking along the same lines. Plus, we profile three projects that add a sense of purpose to glass, whether it’s retrofitting Fallingwater, mitigating climate in New Orleans, or establishing a new landmark in Berlin. By Gabrielle Golenda

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Thermal Theories

Over the past year and a half, several states, including New York, Massachusetts, and Illinois, have adopted the measures of the 2018 International Energy Conservation Code (IECC) for buildings in certain sectors. *AN* asked leading manufacturers and architects to describe what insulating and solar-factor performance benchmarks the code requires of glass in building facades. Below, they identify how it may be difficult to meet those requirements and adapt for a more energy efficient future.

By Gabrielle Golenda



Patricia Culley
Associate Principal,
Bohlin Cywinski Jackson

A holistic, integrated design strategy to achieve energy efficiency is often the best method to meet energy code requirements while providing design flexibility. In the 2018 IECC, the prescriptive pathway and ASHRAE 90.1-2016 outline specific requirements for glazing assemblies. However, the performance pathway allows designers to measure glazing assembly performance in relation to the opaque portions of the building envelope; this allows designers more creativity to meet performance requirements while satisfying design aesthetics. Energy requirements vary by climatic zone. In most of the country (generally zones 3 through 6), window assemblies meeting 2018 IECC will likely require low-e, gas-filled double glazing within thermally broken frames with warm edge spacers. In colder areas, like climate zone 8, triple glazing may be necessary, though it is more challenging to source at this time.

Recognizing the importance of energy conservation, codes will likely continue to become more stringent in the future, and manufacturers will need to continue to advance product performance capabilities. From a design perspective, it is the hope that new advances in thermal improvements of glazing framing systems, glazing coatings, suspended films, and captured gases will achieve better energy performance, while maintaining high levels of transparency and neutral color. Glass facades may become more sophisticated with passive and active technology improvements, advancements in materials, and fabrication technologies, and achieve better performance and cost efficiency with an integrated approach. Glazing system improvements may incorporate both active and passive technologies, advanced materials such as engineered composite materials, phase-change materials, and nanotechnology.



Ivan Zuniga
Product Manager, Storefront,
Entrances, and Framing, Kawneer

Over the last several years, Kawneer has been designing systems using advanced thermal break technology such as dual pour and debridge systems, larger thermal breaks using polyamide material, and the introduction of our patented IsoPour Thermal Break. We have begun documenting higher performing glass (warm edge spacers) in insulating glass units, which architects can use in their thermal performance calculations. To go along with this, our Solector Sun Shading Estimator tool is available on our website to help architects select the right products for meeting thermal and solar performance requirements. Several products have been explicitly designed for both standard double-pane insulating glass unit and triple-pane insulating glass unit capabilities. And we are working more closely than ever with consultants on air barrier connections to help provide more energy efficient building solutions.



Carlos Cerezo Davila
Sustainable Design Leader,
Senior Associate Principal,
Kohn Pedersen Fox

The increased targets for overall thermal performance that we are facing in our ongoing projects in Boston and New York are high enough to require the envelope to perform on its own. Responding to the challenge has been very exciting for us, as it has allowed for a more nuanced conversation about facade design with clients, developers, and brokers. In several projects, this has led to a reassessment of glazing ratios to avoid more expensive triple glazing solutions, resulting in facade designs that incorporate more opacity. This creates new opportunities to focus on materiality, detail, and craft—opportunities that are somewhat limited in standardized commercial curtain wall systems—and to rethink unitized construction delivery systems. At the same time, we are relying more on thermal and energy modeling tools to closely coordinate glazing throughout the building to enable the use of smarter heating and cooling systems.

Looking forward, it is also clear that these new codes, combined with new city-specific regulations to encourage net zero-carbon buildings, are opening the door to more advanced glazing technologies that were quickly dismissed before, given their cost. In colder climates, triple glazing has become a more mainstream commercial solution, and dynamic electrochromic glazing, considered a rare technology ten years ago, is being requested by our clients today. With even more advanced solutions like vacuum insulated glazing on the horizon, we expect to see exciting changes moving forward.



David Duly
Senior Engineer,
Pilkington North America

In order to decrease the U-value of insulated glass units (IGUs), the use of a solar control tinted glass product as the outboard glass layer together with a low-e coated glass with the coating along the #3 surface may be specified. Additional performance may be achieved by specifying a solar control tinted low-e glass with the coating along the #2 surface and an additional low-e coated glass with the coating along the #3 surface. The next step is the so-called #4 surface low-e, where the solar control tinted low-e glass with the coating along the #2 surface and an additional low-e coated glass with the coating along the #4 surface are selected. This combination will result in a reduction in the U-value compared with the case where the low-e coated glass is placed on the #3 surface.

Vacuum insulating glass may be selected for existing window replacement projects where a narrow profile and a lower U-value are specified. This glazing type reduces the heat transfer modes of conduction and convection because of the creation of a vacuum within the narrow airspace (approximately 0.2 millimeters thick) of the IGU.

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Lucas Hamilton
Manager of Building Science
Applications, Saint-Gobain North
America and CertainTeed

We know that views of the outside world are both aesthetically pleasing and beneficial to occupant well-being. We've also learned that it's easier to give people access to nature than it is to re-create it. Unfortunately, the windows that provide this access are traditionally one of the lowest-performing parts of a building when it comes to energy efficiency. This has limited our window-to-wall ratio for some time now, but that is finally changing. Energy efficient features such as dynamic electrochromic glazing integrated with smart automatic lighting produce significant energy savings and lower operational costs of mechanical systems, all while providing uninterrupted views of nature.

It's not impossible to meet energy goals while creating better spaces for people, but we have to build differently than we have in the past. It begins with an understanding that the long-term, compound financial, physical, and environmental paybacks that will be achieved over the installation's life cycle outweigh the initial investment in the systems that afford them.



Helen Sanders
General Manager,
Technoform Glass Insulation
North America

The prescriptive U-factors for fenestration in the 2018 IECC are the same as those in the 2015 IECC, so the new code will make no difference for those following the prescriptive compliance path. However, buildings with higher window area than the prescriptive path allows, prescriptive requirements for the other systems in the building have likely tightened up. The biggest change for architects is not necessarily in the adoption of the 2018 IECC, but the additional requirements that local jurisdictions have established. For example, Massachusetts and New York City have enacted the use of envelope backstops or minimum requirements for performance that a building envelope should meet.

Trading off better internal systems for poorer envelope performance is not so easy when the baseline internal system performance has been increased, and it is especially difficult where stringent envelope backstops are in place. It also becomes more difficult to get to higher glazed transparent areas because the performance comparison is the prescriptive window area of 30 percent or 40 percent if lighting controls are used in more areas.

When higher glazed areas are desired, U-factors lower than the prescriptive path requirements are needed. Because of these backstops, architects likely have to make significant changes to their go-to facade system designs. They are hungry for more information on how to specify the appropriate fenestration products that exceed the current 2018 IECC prescriptive path requirements of 0.38 Btu/°F.hr.ft² for climate zones 4 (New York City) and 5 (Boston, Chicago). There are many curtain wall and fixed window systems that meet a U-factor of 0.38 Btu/°F.hr.ft². For a captured curtain wall, exceeding those standards typically requires a minimally thermally broken aluminum frame, dual-pane low-e coated insulating glass with argon, and a warm edge spacer. Improving the thermal break performance of the frame can reduce the reliance on strategies such as the use of argon to improve the performance of the glass package. Structurally glazed curtain wall systems can typically achieve even lower U-factors than their equivalent captured systems with the same glazing infill because the thermal bridging from outside to inside is reduced.



Mick Moriya
Director of Product Development,
YKK AP America

While there are multiple avenues to achieve a higher level of energy efficiency, framing should be highly considered to meet and exceed energy codes. Advanced glazing solutions, such as low-e glass or argon-filled glass, work to improve the center-of-glass thermal performance value. However, a system's thermal performance is less effective where the captured glass edge meets the supporting frame. This makes the type of framing system and the performance of that system critical when considering the energy performance of a building.

By upgrading the framing system of a building, as opposed to solely improving the glass, architects can in most cases dramatically improve the building's thermal performance. While the up-front costs may be slightly more than just using a thermally advanced glass, the framing system will reduce long-term costs significantly and ensure lasting performance over the life of the building.



Annissa Flickinger
International Architectural
Manager, Vitro

We know the glass industry has done a very good job advancing glass performance. The bigger challenge is for curtain wall manufacturers, since the code's requirements are for whole wall assembly performance, not just center-of-glass. Bigger thermal breaks, multiple airspaces, gas fill, and warm edge spacers are all tactics that can improve thermal performance.

For the past several years, I have been working with architects in overseas markets who need to meet the IECC requirements for glass performance. Depending on the climate zone, the solar performance or solar heat gain coefficient standards can be quite stringent. These requirements, as well as certain zonal ASHRAE requirements, have pushed glass manufacturers to develop new low-e glasses.

Low-e coatings are a great example of nanotechnology being used to meet IECC solar heat gain coefficient (SHGC) and U-value requirements. Quad-silver low-e glass, which uses nanotechnology, can achieve an SHGC of less than 0.25 with a clear or low iron glass substrate. In the past, a tinted substrate was needed for this level of solar control. Now, quad silver low-e glasses give architects a neutral-looking aesthetic while meeting IECC requirements.

We cannot be satisfied with the performance of low-e glasses. Glass manufacturers need to be working on new products with lower SHGC and U-values.

In the meantime, architects are improving the performance of glass facades by adding elements such as vertical louvre shades or expanding rooflines to lessen solar penetration. Structures are also being designed in more unique shapes to create shaded courtyards and minimize direct solar energy.

It is exciting to work with architects on these challenging designs and finding the right glass solution that not only meets IECC requirements, but satisfies the building's programmatic needs. The 2018 IECC requirements may be more stringent, but it is the needed push to further advance low-e glasses and push building design into more efficient geometries.

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cube berlin

Architect: 3XN
Location: Berlin

Architect Souterrain: Maedebach & Redeleit Architekten
Structural engineers: RSP Rimmel + Sattler Ingenieuresellschaft
Facade engineering: Drees & Sommer
Facade maintenance consultant: TAW WEISSE

Coated glass products: Guardian Glass
Cladder: GIG FASSADEN
Glass processor, exterior glazing: BGT Bischoff Glastechnik
Glass processor, interior glazing: Reflex

Resembling both a cartoonishly large paperweight and a monumental mirror, cube berlin doesn't look the part of a typical office building. The new 62,300-square-foot building forcefully anchors Washingtonplatz, a stone's throw from Berlin's central train station, and dazzles passersby with its fully glazed, double-skin facade, all while coyly concealing its true function.

"For many people traveling to Berlin, cube berlin will be the first thing they see, so [we thought] it should evoke an 'OK, I have arrived' feeling. And for Berliners, it's a landmark addition to the existing skyline," explained Torben Østergaard, a partner at Copenhagen-headquartered firm 3XN, cube berlin's lead architect. The project, completed earlier this year, is the shiny centerpiece of Berlin's Europacity redevelopment scheme—emphasis on *shiny*. "The design lies in the interaction and dynamic experience of light, movement, and reflections of the city," Østergaard added.

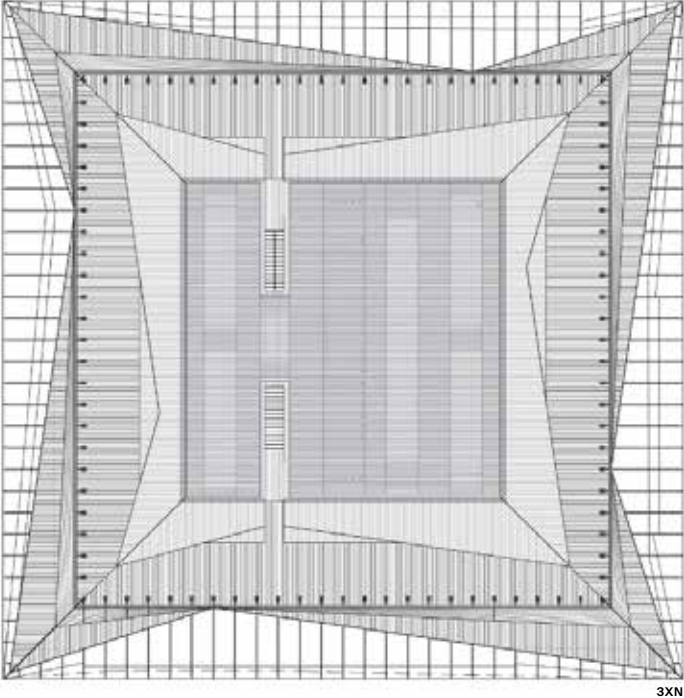
That dynamism is the result of marrying glass to a surgical massing strategy, which subjected a ten-story cube to a series of wild nips and tucks. In plan, these triangular cavities produce pinched floorplates, while in section, they create staggered terraces open to the sky. The volumetric cuts angle reflective glass onto reflective glass, revealing pockets of light, color, and depth that turn every elevation into "a giant relief," Østergaard suggested.

"The reflective character of glass—in particular the type of glass used for the outer skin—emphasizes the relief and provides an effect similar to an enormous kaleidoscope," Østergaard elaborated, betraying the architects' ambition to create an "interactive sculpture" rather than "just another office building."

Michigan-headquartered Guardian Glass supplied three different glass products for the project, which was originally conceived as the winning design for the new head offices of national railway company Deutsche Bahn. Notably, the breathable facade features solar-control glass that improves energy efficiency—one of several technologies that work together to elevate comfort, convenience, and usability levels for workers while minimizing the building's environmental impact.

"Natural ventilation of the office spaces was required, which implied temperature control in the cavity between the inner and outer skin," said Østergaard. "This was achieved via a solar coating of the outer glass and ventilation of the cavity itself. The solar coating did exactly the right thing in terms of reflectiveness and appearance besides...[also] combining solar coating and lamination."

Packing beauty, brains, and brawn into a single sculptural body with a layered skin that further animates its bustling environs, cube berlin demonstrates that it's hip to be square in the German capital city. **Matt Hickman**



Top: Situated opposite Berlin's central station, cube berlin is one part high-performance office building, one part urban looking glass.

Left: The building's porous glazed facade allows for natural ventilation that helps the building meet environmental mandates.

Above: Roof plan of cube berlin

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Insulated Glass Units

In response to the 2018 International Energy Conservation Code for buildings, manufacturers have developed new high-performance insulated glass units (IGUs) and thermal spacers to meet insulating and solar-factor performance benchmarks. By Gabrielle Golenda



Guardian Align Guardian Glass

Designed for residential use, this warm edge spacer was recently updated with a black sealant for cleaner sightlines. Guardian introduced the spacer in its new IGUs, which provide high argon retention rates and improved thermal insulation.

guardianglass.com



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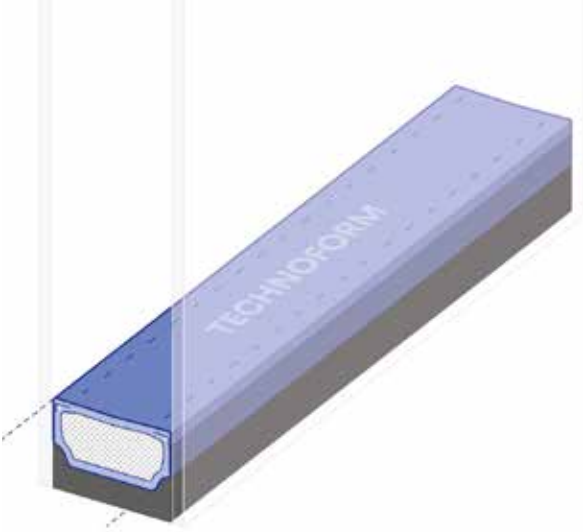
milgard.com



1500 Series Windows Ply Gem

Perfect for either new residential construction or renovations, 1500 Series Windows help to reduce heating and cooling costs while also dampening outside noise. For added thermal efficiency, Ply Gem offers HPMAX triple-pane glass units, which are equipped with two separate insulating airspaces and multiple low-e coated surfaces.

plygem.com



Spacer M high profile Technoform

Technoform introduced a new plastic and stainless steel hybrid warm edge spacer with a profile height of 8 millimeters to its Spacer M family. Made from an environmentally friendly polymer with a thin, low-conductivity stainless steel backing to reduce heat transfer, it facilitates exemplary energy performance in IGUs for windows, doors, curtain walls, and facade systems.

technoform.com



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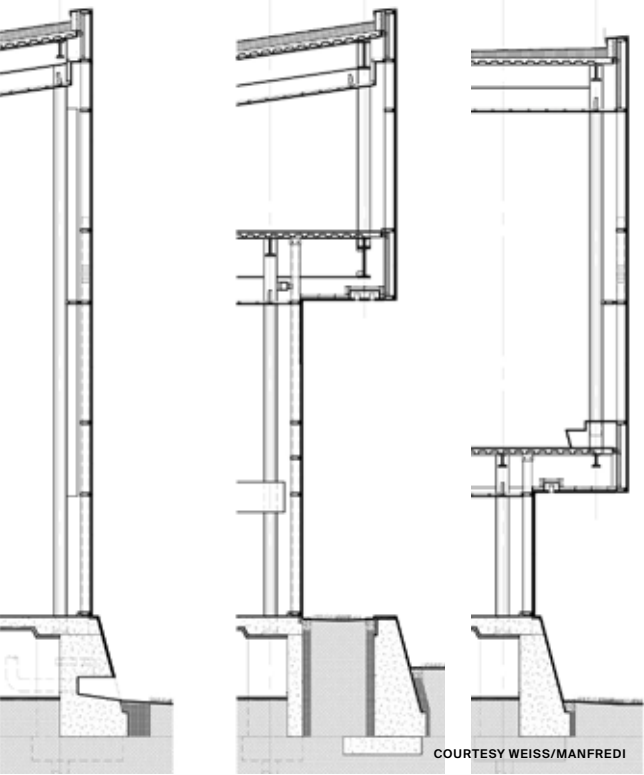
The Commons



TULANE UNIVERSITY-PBURCH



TULANE UNIVERSITY-PBURCH



Top: The Commons sits at the heart of Tulane's campus, and the building seems to shimmer as pedestrians walk by on leafy pathways that surround it.

Far left: The facade uses clear glass in a variety of treatments, which breaks up the surfaces.

Left: The designers selected a prefabricated, four-sided structural silicone glazing cassette system for the facade.

Location: New Orleans
Design architect: WEISS/MANFREDI
Architect of record: Waggonner & Ball
Curtain wall consultant: Heintges Consulting Architects & Engineers
Structural engineer: Severud Associates
Sustainability consultant: Vidaris
Contractor: Broadmoor
Glazing contractor: Zinsel Glass
Client: Tulane University

Curtain wall supplier: YKK AP America
Curtain wall product: YKK AP America YHC 300 SSG Cassette
Glass manufacturer: Viracon
Acid-etched glass units: ¼" clear glass with Velour etch on #1, ½" airspace with stainless steel spacer and gray silicone, ¼" clear glass with VE-85 coating on #3, SentryGlas PVB interlayer, ¼" clear inner lite
Ceramic fritted glass units: ¼" clear glass

with patterned ceramic frit and VRE-38 coating on #2, ½" airspace with stainless steel spacer and gray silicone, ¼" clear glass with SentryGlas PVB interlayer, ¼" clear inner lite
Vision Viracon glass: ¼" Optiwhite glass with VNE-63 coating on #2, ½" airspace with black stainless steel spacer and black silicone, ¼" Optiwhite glass with SentryGlas PVB interlayer, ¼" Optiwhite inner lite

For The Commons, Tulane University's new campus hub, WEISS/MANFREDI designed a glass facade that avoids clichés despite using some conventional materials. The angular building shimmers in the New Orleans light, its mirrored surface broken up by chunky stripes and iridescent hues. It's hardly a typical glass box, but the building's distinctive look belies its use of a humble material: clear glass.
The designers opted to use cheaper clear glass instead of more expensive low-iron

glass, which is widely favored because it lacks clear glass's characteristic greenish-blue tint. Instead, the architects embraced this verdant color, using it to create a subtly complex palette that plays off surrounding live oak trees and nods to the nickname of Tulane's sports teams, the Green Wave.
"In a way, clear glass has more life than low-iron glass," said Andrew Ruggles, the project's lead at WEISS/MANFREDI. "It has an aqueous quality and a material presence that you do not get with low-iron glass."
Long bands of vision glass let students see out of the three-story building's 1,100-seat student dining hall on the first two floors and the top floor offices of the Newcomb Institute, an organization pursuing gender equity, while vertical stripes of acid-etched and ceramic-fritted glass cover the rest of the facade with a pinstripe skin. The overall effect is offbeat and high-impact—especially given the project's considerable constraints.

"We needed to address sun control, hurricane requirements, a tight schedule, and, most importantly, a very strategic budget, which led us to explore how we could utilize standard parts to create a non-standard envelope," Ruggles said.
By using pretested 4-foot-by-8-foot YKK curtain wall units that had already been approved for New Orleans's hurricane-prone climate, the team was able to avoid expensive and time-consuming independent performance testing. A prefabricated, four-sided structural silicone glazing cassette system, chosen for its ability to span large distances without introducing obtrusive structural elements on the exterior, was also easier to quickly install in the heart of Tulane's active campus than a comparable system that would have been assembled on-site. The resulting building, which opened last year, is a testament to glass's underexplored aesthetic opportunities. **JBM**

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Fire-Resistant Glazing

The latest fire-resistant glazing impedes the spread of smoke and flames, effectively blocking the transmission of dangerous levels of radiant heat. It can be used in wall and door applications without the size limitations that apply to fire-protective glass. By Gabrielle Golenda



SMARTIA M15000 RS
Alumil

This smoke-rated opening features a hinged system without a thermal break to prevent smoke from penetrating protected areas. Certified as a panic door for public buildings, offices, and hotels, this opening allows secure evacuation during a fire. It is available as a fixed, single, or double-sash door.

alumil.com



AF70
Aluflam

With a narrow aluminum profile and an interior cavity filled with a patented fire-retardant cooling core, this glass window system offers excellent clarity and noise reduction. It can be assembled in profile or in a butt-joint system.

aluflam.com



Pilkington Pyrostop transparent wall panels
TGP

Pilkington Pyrostop glass paired with TGP's narrow-profile Fireframes blocks radiant and conductive heat transfer for up to two hours. Panels are composed of layers of nearly colorless, wireless, and low-iron Pilkington Optiwhite float glass with clear intumescent interlayers, providing nearly the same color and level of visual clarity as ordinary float glass.

fireglass.com



SuperLite II-XLB 60
SAFTI FIRST

SuperLite II-XLB 60 meets ASTM E119, UL 263, and CAN/ULC-S101 testing and is listed by UL (Underwriters Laboratories). The one-hour fire-resistant glazing is offered with butt-glazed wall capabilities with a maximum clear view area of 7,980 square inches.

safti.com

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Hurricane Impact-Resistant Glazing

These sturdy glazing systems are designed to withstand extreme winds and the objects propelled by them. By Gabrielle Golenda



A-Series with Stormwatch Andersen

Andersen's A-Series windows and doors with Stormwatch protection can withstand even sometimes brutal coastal conditions thanks to a mix of materials and hidden structural reinforcements. The series is offered with a variety of hardware, grille, and impact-resistant glass options.

andersenwindows.com



MetroView FG 501T Window Wall Kawneer

Ideal for mid-rise commercial projects and multifamily housing, this cost-effective window wall system received Florida Product Approval numbers and Texas Department of Insurance approvals for hurricane resistance. It is outfitted with Kawneer's IsoLock thermal break, made by pouring liquid polyurethane into an aluminum cavity, allowing it to harden, and then cutting away a small section opposite the pour area to separate the exterior from the interior aluminum.

kawneer.com



Marvin Signature Ultimate Multi-Slide Door Marvin

Made with fiberglass, this extremely strong sliding door meets AAMA 624 standards, meaning it won't noticeably weather or fade over time. It is available in sizes up to 56 feet wide and 12 feet high to create expansive views and let in an abundance of natural light.

marvin.com



Pella Hurricane Shield Series Vinyl Single-Hung Window Pella

These single-hung windows are made with a recessed sash system that allows the frame to sustain higher pressures. The window frames are available in solid- or dual-color finishes in either bronze or white.

pella.com



FeelSafe French Pushout Casement Sierra Pacific Windows

Featuring two panels that extend outward for wide-open views, this French casement window is fashioned from high-strength, shatter-resistant, laminated glass engineered to stay intact during a storm. It is available in standard sizes up to 72 inches by 72 inches in 75 exterior aluminum finishes.

sierrapacificwindows.com



ForceFront Storm Standard Medium Tubelite

Designed to withstand wind speeds of up to 110 miles per hour, ForceFront Storm Standard Medium impact-resistant entrance doors are rated for wind zone 3. The system is offered with a medium or wide stile, in heights up to 9 feet, with either single or double leaves.

tubeliteinc.com

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Fallingwater



CHRISTOPHER LITTLE/COURTESY THE WESTERN PENNSYLVANIA CONSERVANCY



COURTESY THE WESTERN PENNSYLVANIA CONSERVANCY

Left: Fallingwater’s perch above a waterfall creates a challenging, humid environment for conservators preserving the building’s many windows.

Above: Wright wanted the home’s windows to be as clear as possible to eliminate barriers between the interiors and the forest outside.

Below: The building’s unusually well preserved interiors need to be protected from ultraviolet radiation coming through the extensive glazing.



COURTESY THE WESTERN PENNSYLVANIA CONSERVANCY

Location: Mill Run, Pennsylvania
Architect: Frank Lloyd Wright

Client: Western Pennsylvania Conservancy
Glass manufacturer: Vitro Architectural Glass
Glass products: Vitro Starphire Ultra-Clear glass with a SentryGlas interlayer by Kuraray
Glass fabricator: Dlubak Specialty Glass

Frank Lloyd Wright’s Fallingwater, perched above a waterfall in the forests of southwestern Pennsylvania, presents a complex challenge for its conservators. Unusually among Wright’s works, the seminal 1937 house has been preserved for public viewing with much

of its original artwork and furniture intact, but the building’s extensive exterior glazing means that its aging interiors have been especially at risk of damage by solar ultraviolet radiation.

The building’s long strips of windows, which wrap around the facade unobstructed by curtains or shades, were critical to Wright’s design concept.

“Wright wrote that the limpid surfaces of the glass ‘played the same part...that water plays in the stream,’” said Justin Gunther, director of Fallingwater and vice president of the Western Pennsylvania Conservancy.

The architect originally specified Waterwhite glass, what was then an innovative

low-iron product from PPG Glass (now Vitro Architectural Glass), to create windows that were as clear as possible. Erasing the barrier between the house and its streamside setting would suffuse the living spaces visually and acoustically in a “multisensory, temporal experience,” Gunther said. “Wright designed the house to the ‘music of the stream.’”

This left conservators with a dilemma: How to maintain the windows’ clarity while shielding the original furnishings?

In 1988, preservationists tried to solve the problem by installing transparent protective Saflex PVB interlayers in the glass, but 20 years later, the layers began to delaminate and turn cloudy. So, starting in 2009, conservators

replaced all of the glazing, comprising 1,823 square feet of glass in approximately 320 lites, with a system using PPG (now Vitro) Starphire glass and a Kuraray SentryGlas interlayer, which filters out some UV radiation while keeping views clear.

That system still has to be regularly replaced because the waterfall-adjacent site’s high humidity causes the steel window and door frames to rust. Last year, the conservancy’s on-site staff repaired 69 windows and door sashes, including 16 total panel replacements, with the Vitro system as part of that regular maintenance. The conservancy expects to continue using Vitro Starphire glass for future repairs. **JBM**

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Having an experienced team can make or break a project's success. The WoodWorks Innovation Network is an online community of design and construction professionals who have worked with innovative wood technologies such as mass timber. Build your team at [woodworksinnovationnetwork.org](https://www.woodworksinnovationnetwork.org).



Bird-Safe Glass

In July, the United States House of Representatives passed the Bird-Safe Buildings Act, which requires public buildings being constructed, acquired, or altered significantly by the General Services Administration to include bird-safe materials and design features. With regulations like these in mind, glass manufacturers have begun to offer new frit options, coatings that reflect ultraviolet (UV) light, and digitally printed ink patterns. *By Gabrielle Golenda*



Digitally printed oversize bird-friendly glass AGNORA

With a Dip-Tech NERa D series printer, AGNORA can print frit or images on very large pieces of glass. Thanks to a ceramic ink that cures in a heat treatment process (by tempering or heat strengthening), the prints are resistant to fading and environmental degradation. Prints are available on glass up to 19 millimeters thick and in sizes up to 130 inches by 300 inches.

agnora.com



Lumi Frit Bendheim

This fritted glass surface is particularly effective in mitigating bird collisions because of two characteristics: Its outermost surface is minimally reflective, so it won't mirror the sky or trees like smooth glass, and it is completely customizable in a wide variety of patterns that comply with the 2x4 rule, which says that birds won't try to fly through spaces smaller than 2 inches high or 4 inches wide.

bendheim.com



ORNILUX Bird Protection Glass GGI

Tested and approved by the American Bird Conservancy, ORNILUX is a UV-reflective coating that doesn't compromise thermal performance or light transmission. Low-e coatings, GGI's Alice direct-to-glass imaging, and other features can be used in tandem with the ORNILUX coating to meet multiple glazing goals.

generalglass.com



GlasPro-Bird Safe GlasPro

Nearly invisible to humans, this UV coating features a reflective pattern that helps birds recognize the glass as a barrier. It is available in standard sizes up to 60 inches by 144 inches and in custom larger formats.

glas-pro.com



SkySafe Bird-Friendly Glass Skyline Design

Using the 2x4 rule, Skyline Design's Eco-etch glass etching reduces collisions by making exterior glass read as a barrier to birds. It is offered in a range of proven bird-safe patterns. Custom design is also available.

skydesign.com



AviProtek E Bird-Safe Solar Control Low-E Glass Walker Glass

Vitro Architectural Glass partnered with Walker Glass on a bird-friendly glass developed for a new habitat-enclosing dome at the National Aviary in Pittsburgh. Vitro's Starphire Ultra-Clear Glass allows for optimal light transmission, while the light reflecting from Walker Glass's velour acid-etched finish makes the glass more visible to birds.

walkerglass.com

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UPCOMING ONLINE EVENTS

SOUTHWEST VIRTUAL CONFERENCE

November 5

WEST COAST VIRTUAL CONFERENCE

December 3

SOUTHEAST VIRTUAL CONFERENCE

December 15

Follow our website for upcoming fall event schedule
facadesplus.com

Case Studies in Brief

In the following case studies, innovative glass applications improve building performance by bolstering thermal efficiency, daylighting, and more. By Gabrielle Golenda

The Warehouse New York City

Architect: Morris Adjmi Architects	Products: SAFTI <i>FIRST</i> SuperLite II-XLB
Glazing contractor: Vision Walls	120 with Vitro Starphire Ultra-Clear Glass and argon fill, and Vitro Solarban 60 Starphire in SAFTI <i>FIRST</i> GPX Architectural Series perimeter framing

Elevated above neighboring buildings on Manhattan's West Side, The Warehouse has a view overlooking the Hudson River, the High Line, and the surrounding city. The new office complex is housed in a preexisting 60,000-square-foot, four-story brick warehouse and a three-story floating glass-and-steel addition.

Because of their proximity to neighboring buildings, the floor-to-ceiling glass panels on the top three floors facing property lines were required to meet two-hour-rated firewall

standards. The designers answered this challenge without compromising their desire for massive, oversize windows by using a custom product by SAFTI *FIRST*. The glass units measure 7,980 square inches with a maximum width of 133 inches, larger sizes than any other fire-resistive glazing available. The low-iron glass in the fire-resistive glazing units matches the clarity of adjacent nonrated windows, providing aesthetic continuity.



Cal Poly Pomona Student Services Building Pomona, California

Architect: CO Architects	Sustainability consultant: Atelier Ten
Structural engineer: John A. Martin & Associates	Glazing contractor: Northwestern Industries
Glass installer: Golden Glass	Glazing: Guardian Glass
Landscape architect: Spurlock Landscape Architects	Curtain wall: Kawneer

The Student Services Building designed by CO Architects is California State Polytechnic University, Pomona's LEED Platinum-certified replacement for a complication-stricken structure designed by architect Antoine Predock. The school found that the Predock building, which was completed in 1993, sat on the San Jose Fault; concerned about its structural integrity, administrators voted to decommission it in 2010.

The 138,400-square-foot new building stands on what was formerly a large parking lot. Two volumes—one housing administrative services and the other student services and registration—wrapped in glass curtain walls lie beneath an undulating roof punctured with skylights that bring daylight into the offices and meeting spaces below. A breezeway connecting the two sections allows cooling air to flow inside.



Washington Memorial New Visitor Facility Washington, D.C.

Architect: Beyer Blinder Belle	Custom non-ballistic insulated glass unit (IGU) fabricator: Pulp Studio
Structural engineer: Silman	Ballistic IGU fabricator: Patriot Armor
Force-protection consulting, curtain wall design, structural engineering: Thornton Tomasetti	

Completed in late 2019 by Beyer Blinder Belle (BBB), the new 1,000-square-foot visitor facility at the foot of the Washington Monument in Washington, D.C., provides views of the Capitol for the monument's one million annual visitors as they go through security checks. As described by the United States Commission of Fine Arts, the petite glass and steel cube stands as a "transparent shadow at the Monument's base," complementing the towering structure, which opened in 1888.

BBB worked with Pulp Studio to fabricate custom non-ballistic IGUs for the north and south facades, which are made up of two Vitro ¼-inch-thick low-iron tempered glass panels, stainless steel mesh laminated between two SentryGlas interlayers, and a ¾-inch-deep air space. Patriot Armor manufactured ballistic IGUs with a dual skim system that sandwiches the structural steel skeleton.



Solar Coatings

These solar coatings provide thermal and acoustic insulation without compromising daylighting. Their thin, transparent layers mitigate solar heat gain to improve energy performance and help maintain a comfortable interior climate. By Gabrielle Golenda



Stopray AGC Glass

Suited for exterior glazing on both residential and commercial facades, Stopray reduces solar heat gain and thereby saves energy in sunny environments. It is offered in a variety of neutral colors and can provide custom levels of solar protection and light transmission.

agcglass.com



Solarban Acuity Series Vitro Architectural Glass

Acuity low-iron glass is less green than ordinary clear glass and can be paired with Solarban's solar control low-e coatings for better solar performance. It is intended for office buildings, hotels, schools, condominiums, mixed-use buildings, entrances, and storefronts.

vitroglazings.com



LoE³-366 Cardinal Glass

LoE³-366 provides solar control and high visibility at the same time. A clear coating applied three times with a sputter coating process prevents solar gain by reflecting heat while allowing light in.

cardinalcorp.com



SGG PLANITHERM ONE Saint-Gobain

Designed for double-glazed assemblies, SGG PLANITHERM ONE is a clear glass coated with a clear layer of noble metals. The low-e coating works as a transparent barrier, reflecting thermal infrared rays to reduce heat loss via radiation.

saint-gobain.com

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Resources

Bird-Safety Glass

- AGNORA
agnora.com
- Arnold Glas
ornilux.com
- Bendheim
bendheim.com
- GGI
generalglass.com
- GlasPro
glas-pro.com
- Skyline Design
skydesign.com
- Walker Glass Company
walkerglass.com

Coatings

- AGC Glass North America
agcglass.com
- Cardinal Glass Industries
cardinalcorp.com
- Saint-Gobain
saint-gobain.com
- Vitro Architectural Glass
vitroglazings.com

Decorative Glass

- 3form
3-form.com
- CARVART
carvart.com
- Consolidated Glass Corporation
cgcglass.com
- Daltile
daltile.com
- Eastman
eastman.com
- Galaxy Glass & Stone
galaxycustom.com
- Glas Italia
glasitalia.com
- Glass + Mirror Craft
glassandmetalcraft.com
- Goldray Glass
goldrayglass.com
- Lunada Bay Tile
lunadabaytile.com
- Marazzi
marazziusa.com
- Nathan Allan Glass Studios
nathanallan.com
- Saflex
saflex.com
- SCHOTT North America
us.schott.com

Oversize

- Cristacurva
cristacurva.com
- Glasswerks
glasswerks.com
- ITI Glass
itiglass.com
- Rochester Insulated Glass
rochesterinsulatedglass.com
- Viracon
viracon.com

Performance Glass

- Faour Glass Technologies
faourglass.com
- GAMCO
gamcocorp.com
- Guardian Glass
guardianglass.com
- Innovative Glass
innovativeglasscorp.com
- Jada Windows
jadawindows.com
- Kinestral Technologies
kinestral.com
- Northwestern Industries-Arizona
nwiglass.com
- Oldcastle BuildingEnvelope
obe.com

- Pilkington
pilkington.com
- Pulp Studio
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- Thermalsun Glass Products
thermalsun.com
- YKK AP America
ykkap.com

Safety Glass

- Andersen
andersenwindows.com
- Aluflam
aluflam-usa.com
- Alumil
alumil.com
- ASSA ABLOY
assaabloy.com
- C.R. Laurence
crlaurence.com



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Dlubak Specialty Glass
dlubakglass.com

Global Security Glazing
security-glazing.com

Kawneer
kawneer.com

Marvin
marvin.com

Pella
pella.com

SAFTI *FIRST*
safti.com

School Guard Glass
schoolguardglass.com

Sierra Pacific Windows
sierrapacificwindows.com

Standard Bent Glass
standardbent.com

Technical Glass Products (TGP)
fireglass.com

Total Security Solutions
tssbulletproof.com

Tubelite
tubeliteinc.com

Windows and Walls

Accoya
accoya.com

Arcadia Custom
arcadiacustom.com

Crystal Window & Door Systems
crystalwindows.com

dormakaba
dormakaba.com

Duo-Gard
duo-gard.com

ESWindows
eswindows.com

EXTECH/Exterior Technologies
extechinc.com

Faour Glass Technologies
faourglass.com

HIRT USA
hirtusa.com

JELD-WEN
jeld-wen.com

Kalwall
kalwall.com

Katerra
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Kolbe Windows & Doors
kolbewindows.com

LaCantina Doors
lacantinadoors.com

Milgard
milgard.com

MI Windows and Doors
miwindows.com

Ply Gem
plygem.com

Reveal Windows & Doors
revealwd.com

Reynaers Aluminum
reynaers.com

Sapa
sapabuildingsystem.com

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schueco.com

Vitrocsa USA
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Wausau Window and Wall Systems
wausauwindow.com

Weather Shield
weathershield.com

Western Window Systems
westernwindowssystems.com



Vacuum Insulated Glazing

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Photo: Iwan Baan



Photo: Julien Leyssene / Sciame Construction



Photo: Timothy Schenck



Photo: Iwan Baan

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Architect: Diller Scofidio + Renfro

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53 Highlights

Southeast

Learning from Nature: The Future of Design

Museum of Design Atlanta
Online event
museumofdesign.org/learning-from-nature



Although the physical home of the Museum of Design Atlanta (MODA) is still closed as of press time, *Learning from Nature: The Future of Design*, the institution's survey of biomimetic design, is viewable online.

By using Matterport, a platform for stitching together 360-degree photos into 3D environments, MODA was able to assemble a traversable re-creation of the museum's interior, complete with explanatory texts, embedded videos, and high-resolution photos.

The exhibition's focus might seem familiar to those who attended the Cooper Hewitt's 2019 design triennial in New York City, which also partially focused on designs that imitate

living systems, but *Learning from Nature*, which was developed with the Biomimicry Institute, has a more educational bent. Aside from offering examples of biomimetic design in practice, such as HOK's Central + Wolfe Campus for Apple (designed in conjunction with the consultancy Biomimicry 3.8) in Sunnyvale, California, or the design of the ultra-sleek Shinkansen Japanese bullet train, which cuts down on wind resistance by mimicking a kingfisher's bill, the exhibition also includes plenty of information on the physical principles behind those designs.

Jonathan Hilburg

West

The Future of _Space

A+D Museum
Online event
<https://digitalaplusd.org/>



At the outset of summer, Los Angeles's A+D Museum announced that it would give up its Arts District flagship of four years in exchange for digital quarters. To coincide with the news and the launch of a new web platform, the institution inaugurated its first virtual offering, *The Future of _Space*, which posits that in the time of COVID-19, the internet might be the safest social outlet we have. Whether ingenuous or self-serving, the prompt inspired responses from designers, artists, and other creatives, all duly recorded on the museum's website. Feelings of displacement, disorientation, and dilation—"shifts in reality and

perception" that arise from self-isolation, write the curators—suffuse the crowdsourced works; some lament the loss of physical community, while others puckishly engage with the challenge of translating once-sensorial environments online. One project, Tony Gonzalez's *Garden of Obsolete*, imagines an ethereal Eden in which lampposts, bollards, and other street elements assume absurd, carnivalesque proportions. Objects in mirrors, pandemics and otherwise, may be closer than they appear. **Samuel Medina**

Midwest

Balkrishna Doshi: Architecture for the People

Wrightwood 659
659 West Wrightwood Avenue
Chicago
September 9 through December 12



The first United States retrospective of Pritzker Prize-winning Indian architect Balkrishna Doshi is open in Chicago this fall, thanks to the privately owned gallery Wrightwood 659 in partnership with the Vitra Design Museum of Germany.

The show focuses on 20 of Doshi's most influential projects from 1958 through 2014, drawing attention to the architect's long commitment to equitable civic architecture. Models of the projects supplement materials from Doshi's archives and studio.

Balkrishna Doshi: Architecture for the People will be on display from September 9 through December 12, following its original run at the Vitra Design Museum in the summer of 2019. The exhibition was curated by Khushnu Panthaki Hoof, director of the nonprofit Vastu Shilpa Foundation and Doshi's grandchild, and Jolanthe Kugler, former curator at the Vitra Design Museum. The Vitra show was the first exhibition of Doshi's work outside of Asia.

Potential visitors can expect a mandatory mask policy and social distancing rules. **JH**

East

Documenting Crossroads

National Building Museum
Online event
nbm.org/exhibitions/current



Two virtual exhibitions, *Documenting Crossroads: The New Normal* and *Documenting Crossroads: The Coronavirus in Poor, Minority Communities*, produced for the National Building Museum in Washington, D.C., paint a stirring portrait of urban life under the COVID-19 pandemic. Photographer Camilo José Vergara wandered the streets of four American cities—New York City; Newark, New Jersey; and Oakland and Richmond, California—capturing casual but socially distanced interactions between transit workers, street vendors, panhandlers, shoppers, hospital nurses, and other denizens. In their

depictions of predominantly Black, Latinx, and Asian American neighborhoods, Vergara's dual series give a sense of the disproportionate impact the pandemic has had on these places, notes Yale University associate professor Elihu Rubin in an accompanying essay. In another reflection written with consulting curator Chrysanthé Broikos, Vergara describes his process as he made his "rounds." In one passage, Vergara recalls how a subway musician tried to reassure commuters: "Don't worry, like all storms, this will blow over." **JBM**

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Landscapes for Justice

From Minneapolis: the cultural landscapes that matter now.

Landscapes for Justice continued from front page agitators, although this was generally underreported.

Perhaps it was because of the clarity and cruelty of the videos recording Floyd's death that the incident became a global tipping point. Reporters came from around the world and broadcast images of the burning Third Precinct police station along with the hollowed-out shells of stores.

Much of the television coverage focused on the "loss of property" and the perceived threats of chaos. But the city residents who experienced these days and nights will long remember the bold and colorful works of protest art that bloomed along the damaged streets.

In the days after Floyd's killing, you could see employees of restaurants and shops coming outside to paint their boarded-up storefronts. High school art students painted many of the plywood window coverings in the Uptown area with depictions of other police victims and calls to "say his name."

Verbally and visually George Floyd's memory and name were everywhere. Local artist Seitu Jones created stencil portraits of Floyd that people could apply to surfaces in their neighborhoods. He worked with members of the Gordon Parks High School in St. Paul to create a stencil installation.

Taken as a whole, these murals, stencils, portraits, paintings, graffiti scripts, and photographs are the most powerful grassroots public art that Minneapolis has ever seen. They grew into momentary streetscapes expressing the full range of emotions swirling at the time. But none of this artistic outpouring was ever meant to be permanent.

Landscape Tourism

Shortly before Floyd's death, I was invited to take part in planning a weekend of historic and contemporary landscape architecture tours in the Twin Cities slated for the summer of 2021. The event is part of an ongoing series of city tours sponsored by a national preservation organization for its members to visit. A book will be made about the tour sites and residents will be invited to attend.

From the start, I was skeptical about mostly limiting this cultural landscape event to landscape architecture and the vague discussion about how to include indigenous and minority stories. And then George Floyd was killed, and the city exploded.

In our first meeting after Floyd's death and the protests, I suggested that this event had global resonance and that we had to include it somehow in our tour sites and stories. Or perhaps we should postpone the event.

Some members of the committee couldn't see how landscapes of protest art could *ever* be interpreted in a design tour. The oft-cited rationale was that such street works are inherently temporary, unlike most of the creations by recognized artists, architects, and landscape architects.

Others questioned whether Floyd's death and the social uprising were even relevant in a tour focused on historic landscape architecture.

Others argued that some works of protest art could be included in the tours *if* they become permanent—or at least are still up next summer. I pointed out that we have long, harsh winters here, and they will not be. That was never their intent.



CHRIS FAUST



CHRIS FAUST

The Limits of Mainstream Historic Preservation

I still feel guilty about being so contrarian. But this honest debate among well-meaning professionals tells me that our definitions of history and memory are raising important questions right now in the Twin Cities. For a moment, we were at the epicenter of a pivotal event destined to become a lasting chapter in American history, but next year, will any of the George Floyd memorials large or small be left?

Why does tour planning seem so complicated right now? One reason is that historic architectural and landscape preservation lack the tools to address structural racism and the protests that burst onto the scene in late May.

Historic preservation's interpretive structure stems directly from 19th-century



CHRIS FAUST

Top: Local photographer Chris Faust captured the street art that emerged in the days following the killing of George Floyd. **Above:** Artist Seitu Jones applies George Floyd stencils at Gordon Parks High School in St. Paul.

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European practices in museum curation and art historiography. Over a century later, preservation discourse and guidelines still focus on typologies that organize artifacts and objects by predefined cultures of origin, artists, styles, and subjective judgments of artistic excellence. This is one of many reasons why, until very recently, we've had so little interpretation of Native American sites and long-erased stories. There are few Indigenous buildings, let alone cities, left to collect, preserve, and classify.

Native American culture is still an “add-on” for many regional histories and preservation tours. Tribal cultures and histories are presented as disconnected from the design-focused story after white settlement arrives. The same holds true for the protest art that lined the streets here for weeks.

Creating a definitive tour of cultural landscapes in any city is a complex and moving target. Even significant design styles can be excluded when out of fashion. For example, mid-century modernism and its vernacular echoes in commercial architecture became tour-worthy only in the last few decades—after they were old enough to be “rediscovered,” increasingly rare, or under threat.

But what of the landmark events such as the recent George Floyd killing with few lasting physical traces? Paradigm-shifting events like this murder are major social plot points with long backstories but soon-forgotten footprints on the streets.

Making Critical Connections

More than ever, we need to question how our definitions of “cultural landscapes” limit our ability to understand their depth—how words can both constrict and open new possibilities for political and social critique.

Part of a new critical strategy is to find connections in the landscape that reach far beyond design, style, and aesthetics. A case in point is how the Twin Cities metropolitan region was shaped by early streetcar lines, post-war freeways, and federal policies for housing and transportation. These projects and policies fueled the sprawling segregated metropolis that we have today.

The resulting regional gaps in school quality, access to jobs, and healthcare, along with concentrated poverty, say much about why George Floyd was killed by a largely white police force. This history explains why more than 91 percent of cops in the Minneapolis Police live outside the city. It explains why and where Floyd was killed.

In the cultural landscape history of the Twin Cities, landscape architecture and urban design play aesthetically important but relatively minor roles. The real story is much deeper. We need a richer sense of landscape change and history that reveals connections within seemingly disparate acts.

Economically and racially segregated regions like my own are the result of choices made over time. Even the most seemingly innocuous choices, such as focusing on high-style buildings and landscapes in our tours and narratives of design significance, have an impact on future understanding.

Especially now, in a time of a pandemic, recession, and social uprising, a heritage event focusing largely on designed historic landscapes creates a misleading impression about how this region was shaped over time. For me, such narrowly focused events,



Alongside Faust, the author documented touching displays of public art, much of which was near the 38th Street and Chicago Avenue intersection where Floyd was killed.

and the funding needed to support them, seem almost irrelevant given the bigger story that is now unfolding.

There's no question that cultural landscape tours and discourse should embrace landmarks of architecture and landscape design within their larger social contexts. The professional history of landscape architecture is replete with stories of brilliance and vision still relevant today. In the Twin Cities, the greatest design legacy may well be our vast and connected park systems first envisioned by landscape architect Horace Cleveland in the late 19th century.

These parks and boulevards knit Minneapolis, St. Paul, and their respective neighborhoods together. For a brief span of days, George Floyd's death had the same effect. Although born from anger and frustration, so much of the resulting protest art flashed a message of persistence and hope.

Months after Floyd's death, my fear is that his memory is fading, especially among suburban residents who saw what happened largely on television. Most Minnesotans probably never knew why there was so much internalized rage in Minneapolis that suddenly burst forth.

But this tragedy also became an invitation to expand our appreciation for the interwoven histories of cultural landscapes in our tours and writings and how we teach the history of cities. One hopeful note is that some of the protest art may be sold or auctioned in support of communities of color in the Twin Cities. The temporary landscape will be broken up, but the artworks will take on a different kind of lasting value.

How can the design and preservation communities share these artworks and their messages long after they are gone? Can we move beyond the artifact to address the cultural landscapes that really matter now?

Frank Edgerton Martin is a landscape historian, architectural writer, and design journalist. Martin currently serves as a regular architectural columnist for the *Minneapolis Star-Tribune*.

Chris Faust is mostly known for his large-scale images of vernacular landscapes. His work has been exhibited at and collected by the Walker Art Center, The Minneapolis Institute of Art, the San Francisco Museum of Modern Art, and other regional galleries.

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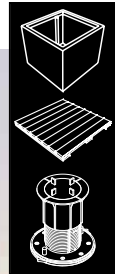
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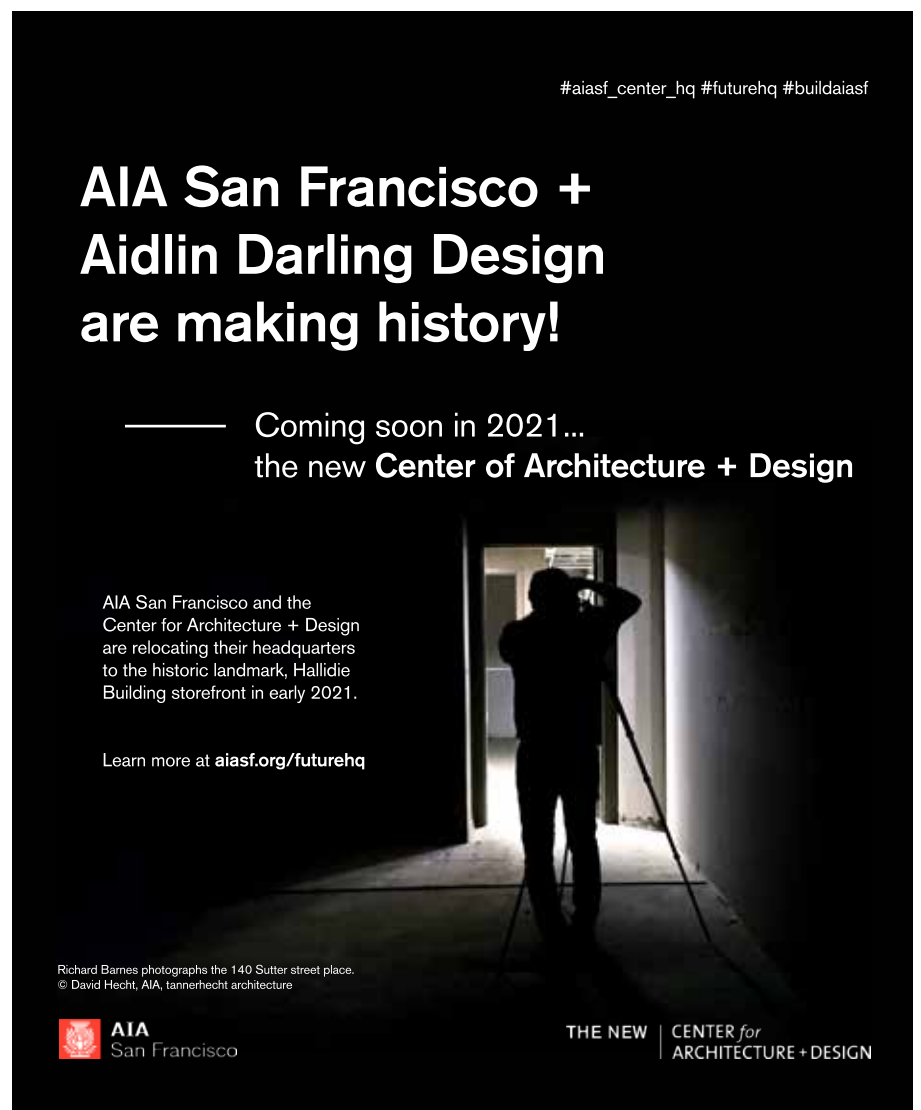
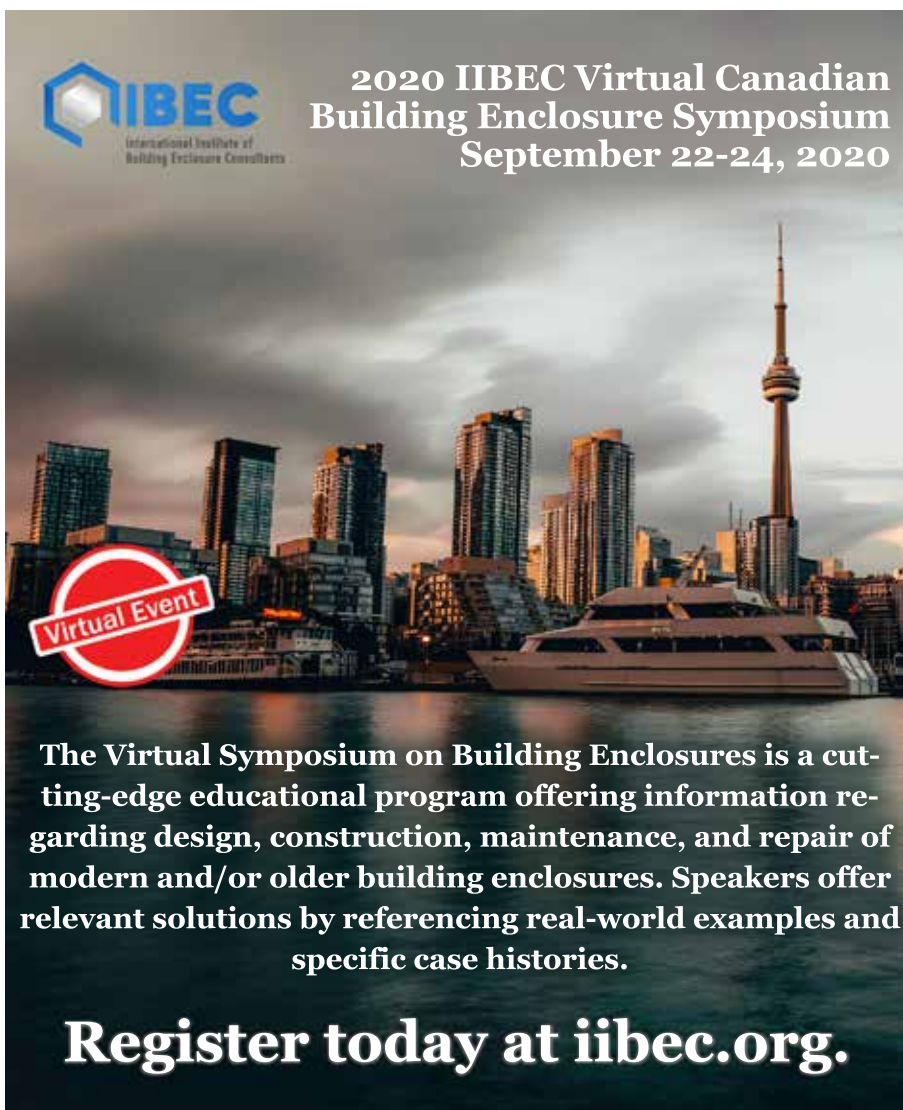
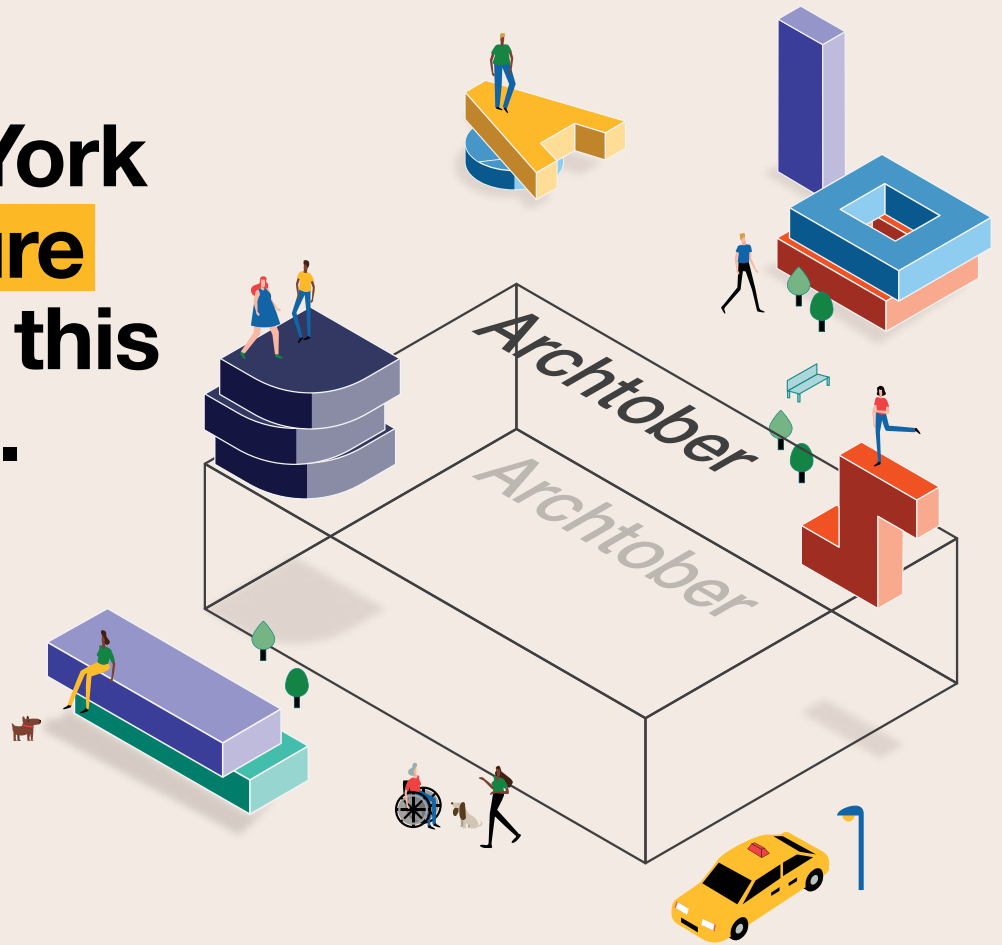
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Modern Architecture and Climate: Design before Air Conditioning

By Daniel Barber | Princeton University Press | \$60

At the age of 26, eight years after I had left the comfort and safety of my parents’ mid-90s brick-and-vinyl ranch, I moved into my first apartment with central air-conditioning. For many of us in the United States, central air is a given—a background whisper to contemporary life, acknowledged only when it stops working and when the monthly bills come around. For me, it was a luxury, a sign that I had made it to a long-delayed adulthood. Gone were the days of renting dingy apartments in broken-up old houses, fighting against the elements with wet towels, box fans, ice packs, and loud, precariously secured window units whose filters always needed to be vacuumed out. It was as if I existed in my own bubble of suspended economic development, enviously waiting for that promised land of modernity, of carefree, 72-degree comfort.

Despite my environmentalist and leftist bona fides, I unquestionably submitted to central air, that ultraconservative symbol of American stability, prosperity, and the pursuit of comfort. Clearly, air-conditioning *conditions*. Indeed, it’s how it managed to dominate and supersede (with planetary consequences) a wide variety of interesting and sustainable architectural alternatives devised during a then-maturing modernism from the 1930s through the end of the 1950s. This is the subject of Daniel Barber’s *Modern Architecture and Climate: Design before Air Conditioning* (Princeton University Press).

Air-conditioning, historically speaking, has consistently been presented as one of the galvanizing moments in the development of architectural modernism. It was what made possible the quietude of Howe and Lescage’s 1932 Philadelphia Saving Fund Society Building, hailed by historian Emily Thompson as a landmark of acoustical engineering and the merging of architectural and sonic modernity, and the reified, endless glass expanses of Eero Saarinen’s 1955 General Motors headquarters and Mies van der Rohe and Philip Johnson’s 1958 Seagram Building, which became the pacesetters for a corporate modernity that persists to this day. The always sardonic Reyner Banham, tired of this pat narrative, offered the following comment in 1969’s *The Architecture of the Well-Tempered Environment*: “As the progress of Le Corbusier’s thinking shows, it would have been necessary to invent air-conditioning around 1930 had it not existed already.”

As if to do Banham one better, *Modern Architecture and Climate* opens with the highly developed shading devices used to mitigate light and heat in Le Corbusier’s unbuilt Barcelona Lotissements from 1931. The premise of Barber’s book is this: The battle for the supremacy of air-conditioning above all other solutions for climate mitigation was, in fact, a *battle*. The conflict drew in some of the most powerful entities of the interwar and postwar periods, from architectural luminaries like Le Corbusier and Richard Neutra to *House Beautiful* and even the US State Department. The period from 1930 to 1960 was one of contested space, rather than a linear progression from the invention of a technology (air-conditioning) to its ubiquitous adoption, and the battle Barber outlines spanned continents, political ideologies, and architectural discourses. In doing so, this history upends many of our perceptions of the politics of climate mind-



The first built examples of “climate modernism” appeared in Rio de Janeiro in the mid-1940s.

fulness, and the legacies of architectural fountainheads.

Having emerged from the confluence of economic, scientific, and material developments, modernism offered technical solutions to human ills, not least of which was the unpleasantness of extremes in temperature. It was completely in line with the “forward-looking” thinking of the time, then, to propose an *architectural* solution to a problem as big as the climate. According to this phenomenon, what we might call “climate modernism,” architects the world over quickly fastened onto shading devices and other climatic solutions that were later codified by Victor and Aladar Olgyay at Princeton. What makes Barber’s book so interesting is not only the meticulous documentation of these climate-control alternatives and their practitioners (he goes out of his way to give the Olgyay brothers their due), but also the tension between their goals and their underlying ideologies.

We would like to believe that environmentalism and sustainability are inherently liberal, humanistic goals. Indeed, in our

current moment of media and political polarization, they are explicitly presented as *liberal* ideas. However, the early modernist aims of climate control, despite being cultivated through more sustainable architectural (rather than mechanical) means, were cloaked in a variety of ideologies that were at best technocratic and at worst imperialistic.

Barber himself cautions against casting these early developments as proto-environmentalist. As he suggests in a passage on Le Corbusier, “The project of modern architecture broadly construed was to engage with and rearticulate the complexity of issues we now address as ‘the environment.’” At the core of Le Corbusier’s experiments with brises-soleil and louvered shades was ultimately the modernist goal of normativity, both functionally and culturally—of a universal space, which, thanks to the development of new architectural ways of mitigating heat and light, could be adjusted and expanded at a global scale. (The underlying ideological implications of this quest for Western, masculine normativity are obvious.)

Even more of a political mixed bag was

the development of shading devices in 1940s Brazil and their inherent geopolitical and corporate underpinnings that span not only architecture but regime change in a developing country. Barber takes as an example the Ministry of Education and Health (MES) building designed by Lúcio Costa, Carlos Leão, Jorge Moreira, Oscar Niemeyer, Affonso Reidy, and Ernani Vasconcelos (with contributions from Le Corbusier himself) in 1936. Perched high on pilotis, the 15-story building features alternating facades—an egg crate containing banks of operable louvers meets the bracing sun, while a more permissive open *pan de verre* admits indirect light.

The MES itself (the government agency) was the product of the 1930 political coup that Brazilian politician Getúlio Vargas instigated alongside the army to dispose of the democratically elected president on anti-communist lines. Vargas’s conservative and centralized government, called the Estado Novo (new state), sought to transform Brazil into a modern capitalist country and tasked newfangled state bureaucracies with raising the standard of living, managing the population, directing industrialization efforts, and instituting cultural and economic reforms.

It’s curious that architectural modernism, which at the time was still seen as politically progressive, was chosen to express such an authoritarian regime. But for Barber, the new architecture habituated Brazilians to the new regime in an instance of “people conditioning,” or subject formation, that generally attends periods of “economic and political disruption as social and economic systems are changing, globalizing, and accommodating themselves to new flows of resources and capital.”

Such experiments in modern statecraft, Barber notes, were part of a larger geopolitical shift away from direct colonial control and toward a postcolonial condition of capital investment and Third World interventionism. Architectural modernism (and climate modernism in particular) was central to achieving this aim, Barber writes:

“One hallmark of this period was a changing role for governments and non-governmental organizations (NGOs), as colonial relations of direct power turned to postcolonial conditions of economic and cultural influence. The built environment took on an even more profound role in the material construction of these new regimes and in their symbolic expression. Again, the façade was an essential mediating agent in this historical transformation. It embodied a system for climatic mitigation that offered to make the planetary interior a space of health and comfort; it also was often deployed as a symbolic screen on which countries and corporations could claim sensitivity and openness to local conditions. A filter, a billboard, and a mask.”

The US State Department harnessed these contradictory effects in its ambitious embassy-building program, which enlisted some of modernism’s most famous names, including Edward Durell Stone, Richard Neutra, Walter Gropius, and Eero Saarinen. The buildings they designed made extensive use of semi-porous sculptural or decorative envelopes, which, Barber contends, betrayed the shift in American foreign policy during the Cold War toward covert op-

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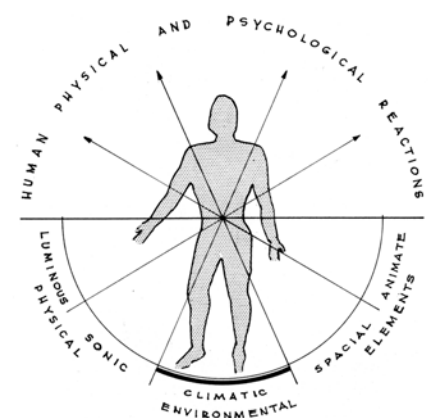
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61 Review



34. Man as the central measure in architecture.

VICTOR AND ALADAR OLGAY, REPRODUCED WITH PERMISSION

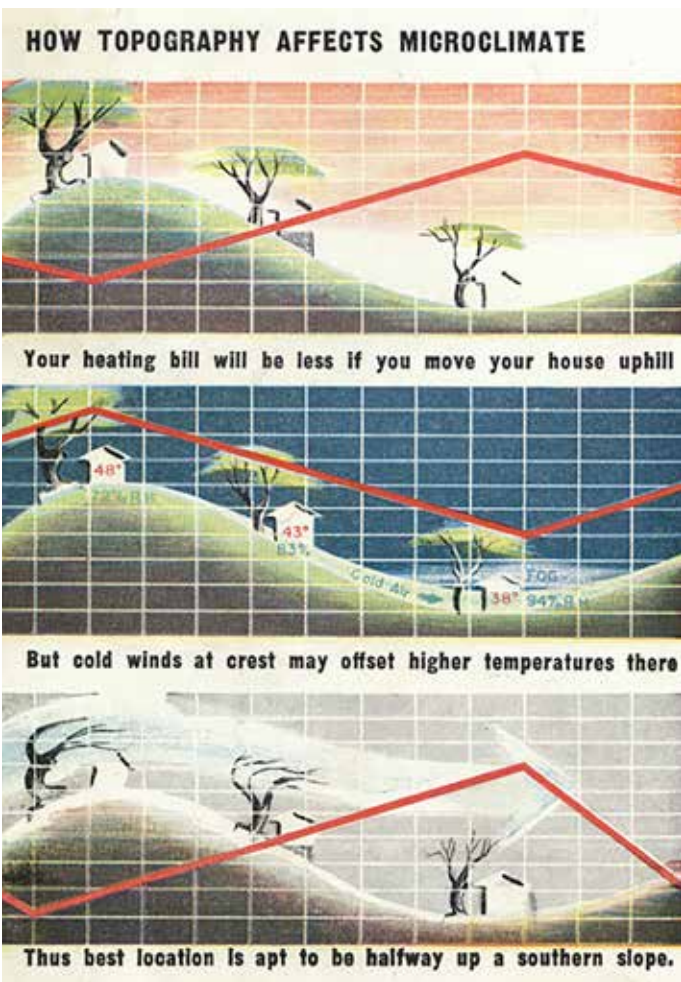
The use of diagrams and charts were central to the Olgay brothers' climatic research.

erations. Seemingly innocent architectural ephemera, then, worked to shield the outcomes of these ops—usually, the brutal overthrow of leaders and movements across the developing world. “At risk of collapsing into conspiracy theory,” Barber writes, “it is hard not to see these carefully shaded structures as operating across these general diplomatic and clandestine terms, selectively allowing access, both inside and outside. The façade served as a charged plenum in the cultural, diplomatic, economic, and political relations between two countries—and possibly had some beneficent shading effects as well.”

After World War II, the role of climate in military operations, agriculture, and land use became clear, and a great amount of effort was devoted across government, corporations, and universities to its study. In Barber’s words: “Climate was one of a handful of natural sciences slowly transforming to render capital more efficient and to render operational the natural surround.”

Within the architecture field, this mounting expertise was focused on “reduc[ing] reliance on heating fuel and electricity for cooling” and the establishment of comfort to “ameliorate living and working conditions to make them more restorative or productive.” This period of innovation, however, soon ran up against what is now called the Great Acceleration, the economic expansion and increasing reliance on fossil fuels that formed the backdrop of the rest of the 20th century. An excellent example of this transition is the Climate Control Project (CCP), a joint initiative between *House Beautiful* and the American Institute of Architects, which aggregated climate data about specific regions within the United States and proposed a home designed around each region’s exploitable natural resources as well as its macro- and microclimates.

The subject of the CCP was the suburban home, which enabled the project’s new forms of diagrammatic communication to uniquely straddle the concerns of science, architecture, and consumer desires. At its core sat *House Beautiful* editor Elizabeth Gordon, who advanced a tasteful, Wright-esque, distinctly American modernism she felt reflected the needs and wants of consumers at a time of changing norms of American consumption. Architecturally managed climate control, here rendered at the scale of the house, promised languid se-



In a 1947 article for *Architectural Forum*, the meteorologist Helmut Landsberg illustrated a few basic principles of a climate-based architecture.

renity, comfort, privacy, and complete thermal control—all wrapped up in a colorful display of awnings and courtyard gardens communicating American social mores and ideas of good living. Underlying this project was a profoundly conservative ideology that advanced the spurious notion of “climate determinism,” according to which, Barber writes, “cultures emerging in temperate climates were seen to benefit from their geographic conditions in the formation of knowledge and civilized social practices—[and] other cultures, it followed, especially those in the tropics, were on a lower rung of the ladder.”

However, Gordon’s strident calls for a distinctly nationalistic American modernism in opposition to the universalizing tendencies of European modernism (which she saw as a communist threat to American individualism and leisurely consumption) ultimately undid the project; indeed, anti-communism ties together many of Barber’s disparate threads. In a 1953 article, Gordon personified “the threat of cultural dictatorship” facing America in the European architects whose houses she judged “unlivable” and whose wives lay in “trying to convince you that...beauty and comfort are incompatible.” James Marston Fitch, the architectural historian whose research and diagrams on the impact of climate on the practices of building were the greatest contribution to the CCP, resigned from *House Beautiful* shortly after. Gordon’s anti-communist screed belied a greater transformation happening in American culture, one linked directly to the Great Acceleration, a shift away from technological efficiency and climate control to unbridled consumer-

ism and the gospel of economic growth, the ramifications of which we are still reckoning with today.

Underlying *Modern Architecture and Climate* is a distinct tension. On the one hand, these architectural solutions to climate control, born from interwar and post-war moments when the belief in the power of architectural design to change lives was at its height, offer us alternative solutions and histories to the carbon-intensive, air-conditioned era that was to follow. In the brise-soleils, louver shades, microclimate diagrams, and adaptive climate design methodologies that proliferate in Barber’s monograph, we can find inspiration in a contested past that lends historical credence to contemporary practices even as it offers a glimmer of a radically different future. The latter was clearly a missed opportunity, whose success in the fight for architectural hegemony would have profoundly changed the world and modes of inhabitation in ways dizzying and despair-inducing to comprehend.

Meanwhile, by the time my modernist apartment building was built in 1966, the prospect of an architectural solution to climate control was fading fast, kept alive only by white-lab coat researchers and hippie modernists, neither of whom were given a second thought by my building’s developer. So quick was the transition between climate modernism and the Great Acceleration that the former has become the subject of specialty books printed by architectural presses while the latter has become a reality of everyday life and an uncertain future. The architecture’s form and architects’ desire to be form makers above all else soon rei-



fied climatically horrible structures like the Seagram Building to the status of legendary innovations and cheerily handed over the reins of climate control to HVAC engineers so that the pursuit of form could be continued unabated during the postmodern turn.

In many respects, it was a future that we let happen. Yet, as Barber’s historiography makes clear, this fate was not brought about by the personal failings of individuals. In his account, the scientists, architects, and educators at the forefront of climate modernism are neither misunderstood vanguards nor futuristic harbingers of a new age of building, but rather subjects of forces far larger than themselves—political conservatism, libidinous consumption, neocolonialism, Cold War intrigue. Climate modernism, despite its sensitive foresight, cannot be excluded from the complicated legacy of modernism writ large. We have to contend with that greater project’s precepts—chief among them, the pursuit of a universal, mechanically cooled comfort above all else—if we are going to halt the ecological crisis unfolding around us. The lesson from Barber’s book is not to replicate the conditions that begat yesterday’s missed opportunities, but to change them for the better.

Kate Wagner is an architecture critic and the creator of the blog *McMansion Hell*. Her column “America by Design” can be found in the *New Republic*.

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Frederick Kiesler: Face to Face with the Avant-Garde

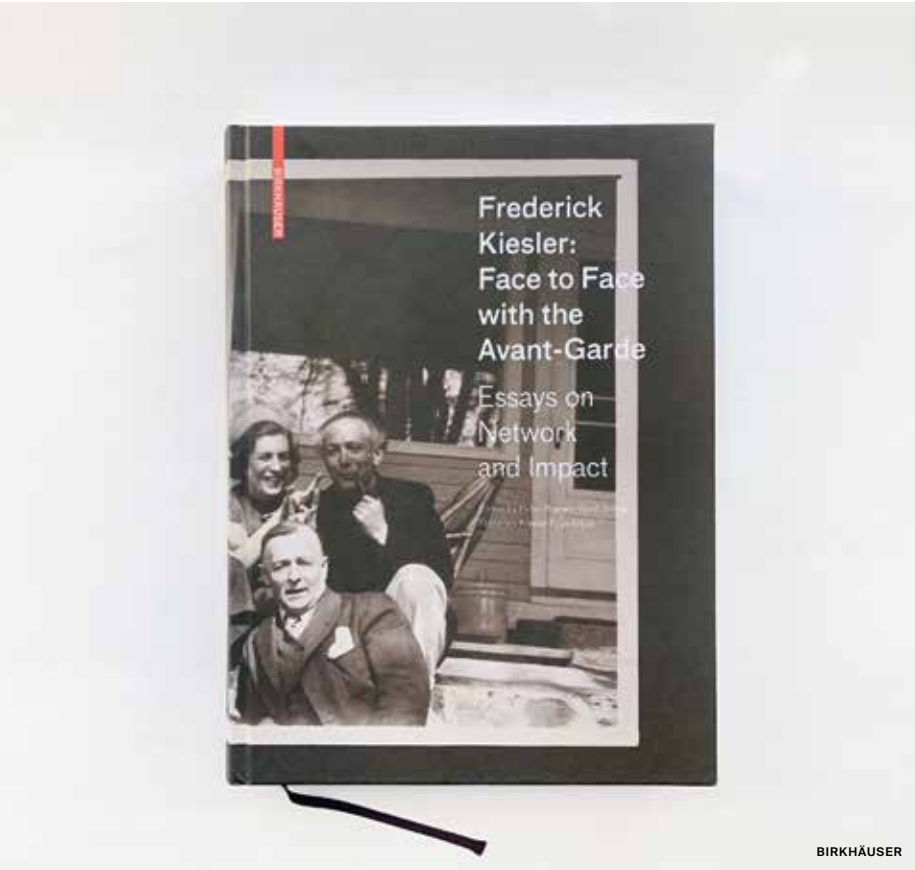
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Instead of charting an artist or architect’s career as a sequence of projects, what if you mapped it according to the people with whom they conversed, commiserated, and collaborated? That is the productive experiment contained within the book *Frederick Kiesler: Face to Face with the Avant-Garde*, about the Austrian American architect. Its 21 essays “on network and impact” are like 21 faces of a prism that reveals Kiesler not simply as a creative and critical dynamo, but also—as Peter Bogner, one of the book’s editors, writes in the introduction—“as a dedicated networker who played a pivotal role in the transfer of ideas between the European avant-garde and the New World.” Remembered in architecture circles today for designing several spectacular exhibitions and especially for his unbuilt, cocoon-like Endless House project (1947–61), Kiesler was anything but a recluse.

It’s jarring, at first, to see a serious artist-architect characterized as “a dedicated networker,” as if Kiesler were a brand ambassador for LinkedIn. But the truth is he spent a lot of time schmoozing, and his sociability helped fuel his career. Standing just five feet tall, Kiesler charismatically commanded a room, his intelligence lightened by “a twinkle in his voice and a critically penetrating wit,” as Carroll Janis remembers. To read about Kiesler by way of his compatriots and contemporaries is a little bit like attending his 1965 funeral in Manhattan, which featured a lineup of spirited readings and performances. At one point, the artist Robert Rauschenberg rolled a car tire through the rows of mourners, painted it near the altar, and laid it to rest by Kiesler’s casket.

Though few if any architects attended the funeral, Kiesler was “rediscovered” by 1970s architects who embraced environmental art, and resurrected once more in the new millennium by spatial innovators wielding digital modeling tools. Hani Rashid, the ex-president of the board of the Austrian Frederick and Lillian Kiesler Private Foundation, writes in his foreword that Kiesler, with his fluid and interactive forms, “recognized the prophetic glimmers of a neurally networked planet and society.” The Endless House remains not just a paragon of sculptural plasticity, but also a daring, if all but unrealizable, vision of a total environment in flux. “As an architect, Kiesler does not often get his due,” the late Bill Menking wrote in 2016. “But Kiesler never gave up his desire to build,” and his creative vision remains “more relevant than ever in today’s world of architecture practice.”

Previous books on Kiesler, such as Stephen J. Phillips’s *Elastic Architecture* of 2017 and a 1989 Whitney Museum exhibition catalogue, provide a relatively monographic analysis of Kiesler’s multidisciplinary practice. In contrast, *Face to Face* uses network research, a technique developed in the social sciences, to shed light on Kiesler’s formative relationships and social circles in relation to certain key “nodes,” i.e., projects and events. The volume’s many essays describe Kiesler’s sometimes warm, sometimes fraught relationships with figures such as Theo van Doesburg, Hans Richter, Sigfried Giedion, Marcel Duchamp, and Piero Dorazio, and with collectives like the Bauhaus and the American Union of Decorative Artists and Craftsmen. Architect and



In 1933, Frederick Kiesler's Space House was installed inside the Modernage Furniture Company's New York showroom.

environmental artist James Wines, founder of SITE, credits his friendship with Kiesler for setting him on a new creative path. “[I was] transfixed by this diminutive and iconoclastic genius,” Wines writes. “His impact was so great that I basically abandoned my entire sculpture career and ventured into experimental architecture.” Kiesler disdained the label “avant-garde,” Wines adds, as “more degradingly conservative than being called ‘historical.’”

Frederick Kiesler was born in 1890 in a provincial capital of the Austro-Hungarian empire that is now part of Ukraine. After

studying and working in Vienna, he first broke through as a designer in Berlin in 1923, with his electromechanical stage set for Karel Capek’s dystopian robot play *R.U.R.* After the second performance, as Kiesler was preparing to exit the theater, he was grabbed and carried off by van Doesburg and his De Stijl “gang,” whose members included El Lissitzky, László Moholy-Nagy, Richter, and Kurt Schwitters. They met Ludwig Mies van der Rohe at a club, where they spent the night discussing revolutionary ideas for architecture and theater. Kiesler then circulated between Vienna, Berlin, and Paris until

1926, when he first traveled to New York to set up a theater exhibition.

Kiesler’s heady networking required support and sacrifices along the way. Stefi, his first wife, “gave up her life as an artist and began working at the New York Public Library in August 1927,” Gerd Zillner writes. Kiesler befriended establishment architects like Harvey Wiley Corbett and Wallace K. Harrison—valuable connections—but corporate practice did not suit him. His attempts to practice architecture in New York were thwarted by the collapse of commissions for a theater in Brooklyn Heights (1926), a museum building for the Société Anonyme (1927), and a theater in Woodstock, New York (1931). In 1931, he was introduced to Hilla Rebay as a potential architect for the planned Museum of Non-Objective Painting, the future Solomon R. Guggenheim Museum, but that project, too, fell through for Kiesler.

Amid the Depression, Kiesler found work designing theatrical stage sets, luxury shop windows, a cinema, a modern furniture showroom, and a model house. He also landed faculty positions at Columbia University and The Juilliard School and published articles on his theories of “design correlation” and “correalism,” in which, simply put, everything responds to everything else. Though the Kieslers hosted countless parties and distinguished guests, including Duchamp, Fernand Léger, Piet Mondrian, and Mies, at their penthouse apartment on Seventh Avenue and 14th Street, where they lived from 1933, Kiesler always protected his creative and intellectual space. For example, Almut Grunewald’s essay recounts how the art historian Carola Giedion-Welcker, the wife of Sigfried Giedion, was impressed by Kiesler’s design for the 1947 Surrealist exhibition in Paris, and suggested recruiting Kiesler to the Congrès International d’Architecture Moderne (CIAM). “Kiesler explained to me that what he does is a rebellion against hygienic architecture. That he is not a surrealist,” Carola wrote to Sigfried. “Might he not be useful for CIAM”? But though Kiesler and Giedion shared an interest in the synthesis of the arts, and enjoyed at least one sociable outing to the beach together, as shown in a photo, they ultimately held each other at arm’s length. Kiesler never joined CIAM, which came to represent precisely the “hygienic architecture” against which Kiesler rebelled with his poetic search for “the endless.”

The Endless House, for which MoMA commissioned a full-scale model that was never realized, is at once Kiesler’s most recognizable and most misunderstood project. To this day it brings new designers and thinkers into the orbit of this ever-beguiling artist-architect—thus expanding his posthumous network—but the visual power of Kiesler’s drawings and models all too often overshadows his desire to put people in touch, literally, with architecture and the environment. *Face to Face with the Avant-Garde* takes an important cue from Kiesler’s theory of continual interaction and movement. Indeed, the book offers something like a “correalistic” approach to the figure of Kiesler himself—endlessly recomposed of opportune encounters, transformative conversations, and transatlantic debates. **Gideon Fink Shapiro is a New York-based critic and author.**

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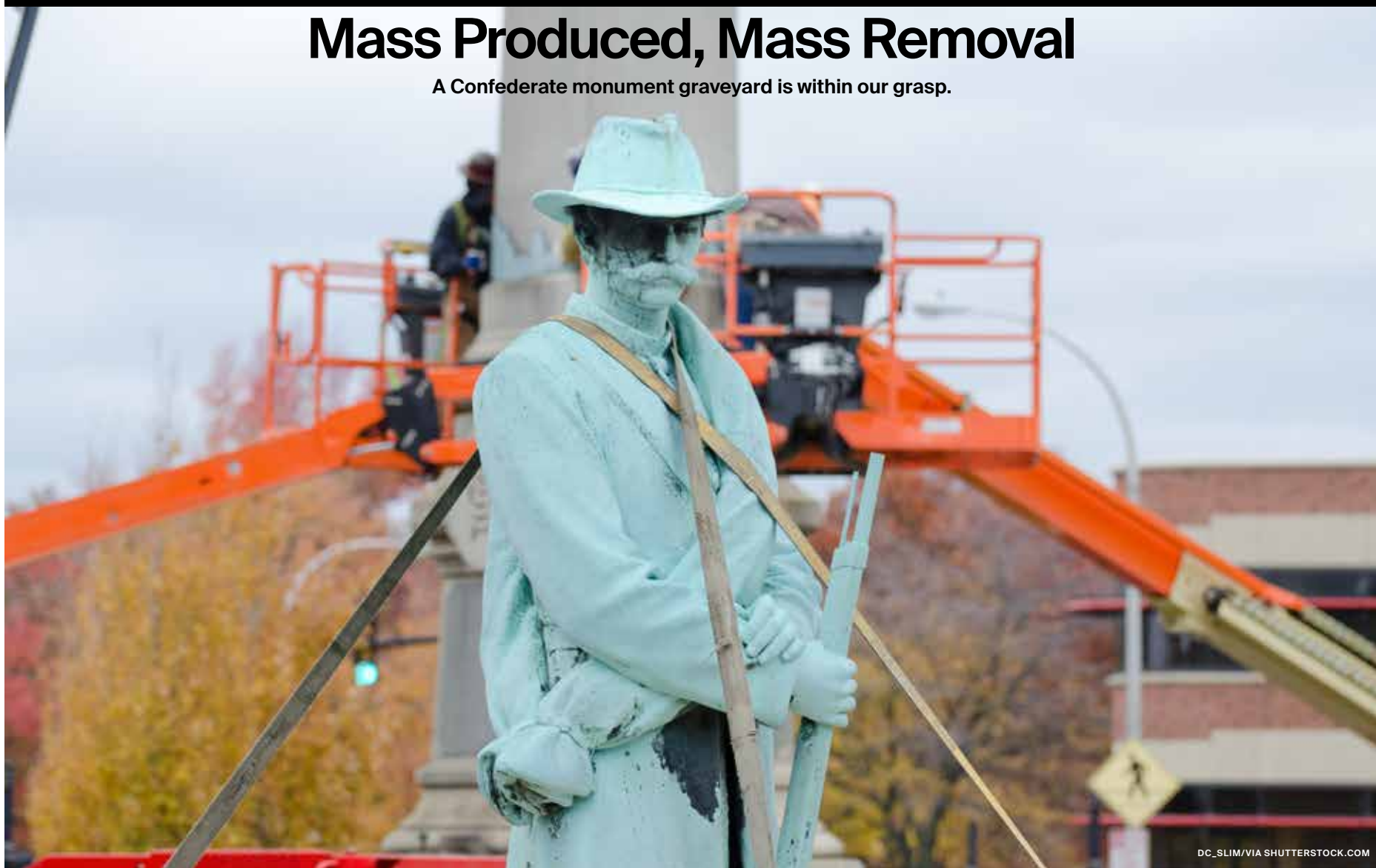
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Mass Produced, Mass Removal

A Confederate monument graveyard is within our grasp.



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Confederate monument near the University of Louisville being dismantled in Louisville, Kentucky, in 2016

As an architectural historian and preservationist raised in Mississippi, I am frequently asked my opinion regarding monuments to the Confederacy. “I don’t want to erase history,” people say, “so what do you think we should do about Confederate monuments?”

My answer? Take them down. Unequivocally. Remove them from town squares, parks, boulevards, and civic buildings. They will not be missed.

Following the murder of George Floyd in Minneapolis on May 25, 2020, and subsequent nationwide Black Lives Matter protests, American public opinion finally shifted in favor of the removal of Confederate monuments. According to a June 29, 2020, report from the Southern Poverty Law Center, 81 Confederate monuments have been removed or relocated in cities across the United States since 2015. While this is significant progress, 748 Confederate monuments remain on public land.

My proposal? Put them in a field in the middle of nowhere.

While there is reinvigorated momentum to remove Confederate monuments, public resistance has been swift from well-meaning individuals who claim to revere history and preservation. They say, “Why not just add new signage that recontextualizes the monuments?” Nope. Unacceptable. It’s not that simple. I was once on Team Recontextualize. I thought that by providing the appropriate context—how these monuments were erected in the early 20th century as a method of solidifying white supremacist ideology nationwide, a form of Lost Cause propaganda—the dark history of these statues could be mitigated.

I was wrong. This remedy completely ignores the function of public monu-

ments to commemorate a person or event and make a statement about the ideas and values a society should embrace. A simple plaque cannot right the ideological wrongs of the Confederacy, nor can it take away the monument’s cultural influence. When former New Orleans mayor Mitch Landrieu explained his reasoning for removing several Confederate monuments, he asked people to consider how they would justify the presence of these statues to a young African American girl. He said, “Can you look into that young girl’s eyes and convince her that Robert E. Lee is there to encourage her?”

The only answer is no.

To move forward, monuments to the Confederacy, no matter their significance, must be taken down. But that raises the question: What the hell do we do with them now?

I am not advocating for the destruction of these statues, but what to do with Confederate monuments once they have been decommissioned is a major hurdle in planning their removal. The Indiana Jones re-tort “It belongs in a museum!” has been a standard refrain from public officials and historians. Unfortunately, it turns out that belonging in a museum is a lot easier than actually being in a museum. The City of New Orleans had to build a \$50,000 storage shed for one monument after its removal, four Baltimore Confederate monuments have been sitting in a city-owned storage lot since their removal in 2017, and Richmond, Virginia’s recently removed Confederate monuments are now stored under tarps at a wastewater treatment plant. These are only temporary solutions. Confederate monuments are difficult to house in museums because of their size and toxic history.

The expense of caring for these works in the museum context outweighs their cultural value. Some cities have even resorted to auctioning off Confederate monuments to private entities.

The power of monuments and memorials is garnered solely from their placement in a prominent public area. A hero of the Confederacy placed on a pedestal in front of a city hall or courthouse, in the center of a public park, or on a well-traveled thoroughfare is only able to advance racist ideology because of its singular existence in a highly trafficked location. If a Confederate monument is removed from this context and displayed with dozens of other statues depicting the same Confederate general or nondescript soldier, the fact that it is solely an object of Lost Cause propaganda becomes abundantly clear. Imagine more than 800 Confederate monuments arranged by historical figure, type, and style and confined to a contemporary Confederate graveyard as a way to tell the history of pervasive white supremacist messaging in visual culture across the United States. The vastness of this installation would capture how insidious racism is in American culture. It would be an incredible teaching tool.

There are precedents for this. The countries that made up the former Soviet Union have been confronted with the problem of what to do with an abundance of unwanted Soviet symbols and monuments. In Moscow, fallen Soviet monuments have been placed in the Muzeon Park of Arts, where statues of Stalin, Lenin, and Felix Dzerzhinsky mingle with contemporary sculptures. In Tallinn, Estonia, the Estonian History Museum displays 21 Soviet monuments in the Maarjamäe Palace park with the context

of the dark period of Russian occupation fully explained. Memento Park, designed by Ákos Eleőd, in Budapest, Hungary, is perhaps the grandest iteration of the “Soviet graveyards.” Containing 42 Communist-era monuments, the park serves as an educational center, artistic action ground, and tourist destination that tells the story of the Cold War and the fall of Communism in Eastern Europe.

A Confederate graveyard is within our grasp. Public opinion supports the removal of Confederate monuments and symbols. These monuments were crafted to withstand the elements. The National Park Service has access to over 84 million acres of land. The Southern Poverty Law Center has completed “Whose Heritage? Public Symbols of the Confederacy,” a project that provides a history and context for understanding the negative impact of monuments to the Confederacy. Organizations like Monument Lab have created excellent, inclusive programming for vacant pedestals and new memorials nationwide. We have all the pieces; we just need to put them together, and we can finally lay the last remnants of the Confederacy to rest.

Anna Marcum is an architectural historian and preservationist based in Brooklyn, New York. She regularly contributes to *Atomic Ranch* and has written for *Preservation in Print*. Marcum received a bachelor of arts in art history from Barnard College, Columbia University, and a master of preservation studies from the Tulane School of Architecture. You can follow her work on Instagram @badpreservationist.

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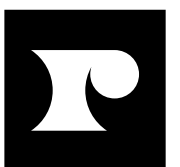


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