

The Architect's Newspaper

February/March 2019

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Drowning in Design

The Maldives gets the first underwater hotel. See page 12.



JUSTIN NICHOLAS

2019 Emerging Voices

The Architectural League of New York delivers another solid class of up-and-coming talent. Say hello to CCA Centro de Colaboración Arquitectónica, UUfie, MODU, Colloqate Design, FreelandBuck, Davies Toews, SCHAUM/SHIEH, and Waechter Architecture.

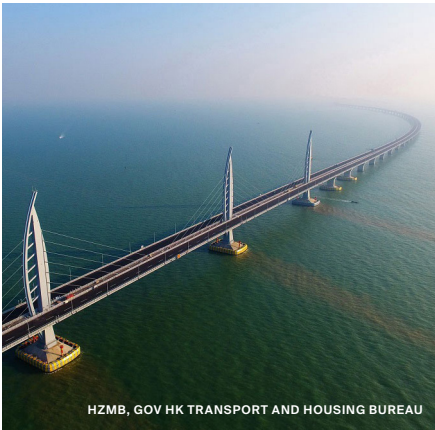
See page 18.



ONNIS LUQUE

Yes We Span

World's longest bridge opens.



HZMB, GOV HK TRANSPORT AND HOUSING BUREAU

China's new Hong Kong-Zhuhai-Macao Bridge is a structural anomaly. Stretching across and underneath the Pearl River estuary, it crosses over four artificial islands and 147-foot-deep waters. At 34 miles long, it's not only the world's longest overseas bridge, but the most extensive fixed link ever built on Earth.

The \$18.7 billion project, dubbed the HZMB, was first envisioned by Hong Kong businessman Gordon Wu, chairman of Asian infrastructure firm Hopewell Holdings, back in 1983. Wu was inspired by Virginia's 23-mile-long Chesapeake Bay Bridge Tunnel, a project spanning five decades that remains one of the longest constructions ever built in the United States. In 2009, Wu's initial dream for the HZMB came true when the Chinese government announced it as part of a \$300 billion infrastructure plan to connect the nine mainland cities of the densely populated Pearl River Delta. The plan, now well underway, consisted of 150 projects meant to spur economic development and trade in the nation's largely administrative region.

After years of logistical planning, construction on the HZMB began in December 2011 and was split into three sections. The Main Bridge, the most complex part of the project, features a 14-mile-long viaduct and a 4-mile underwater tunnel. In order to achieve staying power under the sea, the six-lane elevated highway required the construction of multiple prefabricated steel box girders, as well as steel-concrete composite **continue reading on page 11**

Kitchen & Bath

See page 29.



DEREK SWALWELL

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Editors' Note

Design fuels Detroit's recovery

Could Detroit be pioneering a new type of gentrification? It is possible. The recovery—with its innovative experiments in revitalization—is set to become a laboratory of ideas that will redefine gentrification, learning from the urban renaissance of the last 20 years in other cities.

The Detroit of the late aughts was a desolate place: The municipal government had all but crumbled in the wake of a depopulation that saw the city go from over 2 million residents to around 700,000. With the loss of people and jobs came the loss of density and infrastructure, which left Detroit the poster child for apocalyptic Rust Belt landscapes.

During this period of the late 2000s to the early 2010s, steep real estate discounts allowed artists and entrepreneurs to buy houses and commercial buildings extremely cheap. This legendary scenario led *The New York Times* to publish an article titled “Last Stop on the L Train: Detroit,” in 2015. And it certainly feels that way, with vibrant music, arts, food, and design scenes in the city that seem to be linked together by a small community of like-minded people working on a host of cultural projects together.

However, much of the buzz about Detroit in the national media has died down. How is Detroit doing five years after becoming the largest city ever to go through a structured bankruptcy, and how is design helping to speculate on new future urbanisms?

Today's Detroit is a different place than five years ago. The days of \$500 houses bought at auction and dark, empty landscapes are becoming a thing of the past. Developers and speculators have bought up much of the land around the city center, with Dan Gilbert's Bedrock Ventures owning almost 95 percent of the downtown area. This area could now pass for a street in downtown Chicago, with high-end boutiques and chains like Warby Parker and lululemon.

Other neighborhoods like Corktown and Midtown have seen a resurgence in development, an increase in market-rate housing, and more traditional forms of urban revitalization. Infamously abandoned sites have been bought for eventual redevelopment or reuse. Most strikingly, a Ford-branded security Ford Escape is parked outside the Ford-emblazoned fence at Detroit Central Train Station, a ruin-porn poster child now slated for redevelopment as the auto giant's new office building.

Now the challenge will be to deliver on some of the potential that has been so evident over the last decade.

Detroit's municipal government has long been seen as incapable of addressing the problems that plague the city. Since declaring bankruptcy in 2013, the city has implemented a series of initiatives that have in many ways stabilized it. These include basic things like improving emergency services and transportation. Perhaps most important, new LED streetlights were installed, ending the days when residents carried flashlights in their cars.

Perhaps the most dramatic change in Detroit's governance has been in the city planning department. Architect and former Charlottesville mayor Maurice Cox has been tasked with overseeing the recovery. His first step? Hiring a diverse, interdisciplinary team of 36 planners, architects, urban designers, and landscape designers to re-think how a city can incentivize investment, rebuild infrastructure, redensify targeted neighborhoods, and provide services to new residents while preventing displacement of existing residents and cultures that have endured the city's darker times. Cox calls

it “inclusive recovery.” This comprises measures that harness one of the unique things about Detroit—a high level of community engagement.

As a majority African-American city, it is an especially promising place to pioneer these ideas.

The most important priority of the plan is to recover without displacement and preserve affordable housing. Cox's initiatives include framework plans for targeted neighborhoods that have strong residential numbers and some active housing stock. The planning department identified weak spots surrounded by higher-density areas that could be tied together with coordinated investment, resulting in six quarter-mile-by-quarter-mile areas where recovery could be easiest.

The proposed Joe Louis Greenway will be a 31.5-mile bike-pedestrian loop that passes mostly through neighborhoods with a median income under \$27,500 a year and a 30 percent rate of access to a car. Research into the housing includes a joint venture between the University of Michigan Taubman College of Architecture and Planning and the City of Detroit.

As design thinking ramps up, so too will design excellence. Detroit has a long legacy of designers and architects who have called Michigan home, such as Eliel and Eero Saarinen and Albert Kahn. But in recent years, there have been fewer high-quality projects. This is changing, however, with firms such as Lorcan O'Herlihy, SCAPE, Walter Hood, Adjaye Associates, Michael Van Valkenburgh Associates, and others signing up to design housing, parks, and urban farms. O'Herlihy, for instance, is working on a housing study for Brush Park, the first of Cox's targeted neighborhoods just outside downtown, designing a 24-building, 410-unit densification plan.

And design is baked into the new planning department goals and regulations. What could be design's biggest impact is the preservation of existing cultures, which includes the existing building culture, one of the goals for “inclusive recovery.” To prevent the loss of the visual character of the neighborhoods, incentives such as a double density allowance are offered for projects that preserve the existing shell of a building. Layering history in this way will inevitably lead to interesting new adaptive reuses.

These building refills are a good metaphor for the new type of gentrification being pioneered here: They redensify the abandoned fabric with useful infill, but do not take away the texture that makes Detroit unique.

The city also has about 24 square miles of vacant land, which is very costly to maintain. In collaboration with developers and designers, the city is programming many experiments in urban agriculture and self-reliant landscapes. In one case, Walter Hood Studio's Rosa Parks Neighborhood Master Plan does not propose any new buildings, but rather infills vacant lots with tree nursery gardens that will provide jobs and act as productive landscapes.

Detroit is not without its issues, but the future looks bright. Five years after bankruptcy, it is an exciting time in the city, and there is reason to believe it will provoke a new kind of urban revitalization: one in harmony with nature and existing cultures, informed by the urban progress made over the last few decades. **Matt Shaw**

For an extended, feature-length version of this editorial, see archpaper.com/detroit2019

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

Repair plan for shuttered Transbay Transit Center is in the works

Transbay Joint Powers Authority officials in San Francisco have approved plans to repair a pair of fractured beams that were discovered at the now-shuttered Pelli Clarke Pelli Architects-designed Transbay Transit Center last fall. The plan calls for the installation of four sets of new steel reinforcing plates to shore up the failing members.

Concrete produces 8 percent of the world's carbon dioxide emissions

The English international affairs think tank Chatham House released a report that attributed approximately 8 percent of the planet's annual carbon dioxide emissions to concrete production. The chemical processes used to create its binding agent, cement, contributes the relatively largest share to the world's emissions.

Burning Man's 2019 temple gets back to basics

The central temple for Burning Man 2019 has been revealed. Architect Geordie Van Der Bosch has chosen to keep the building simple and linear. As opposed to last year's digitally fabricated, fractal-invoking Galaxia, 2019's Temple of Direction references traditional Japanese torii gates and presents a clear entrance and exit.

Venturi, Scott Brown's Sainsbury Wing wins the 2019 AIA Twenty-five Year Award

After awarding no building the prestigious Twenty-five Year Award in 2018—a first since the prize's founding in 1971—the AIA has changed its tune in 2019. This year's award has been bestowed upon the Sainsbury Wing addition to London's National Gallery, designed by Venturi, Scott Brown and Associates.

Apple announces a \$1 billion campus in Austin, Texas

Apple has announced that it will be opening a \$1 billion campus in Austin, Texas, and satellite offices in San Diego, Seattle, and Culver City, California. The move stems directly from the tax reform bill signed in December 2017, as Apple is moving much of the \$252 billion in cash it was holding overseas back to the United States.

Five finalists release their visions for O'Hare expansion

The five big-name firms competing to design the \$8.7 billion Terminal 2 at Chicago's O'Hare International Airport have released their design visions. Most of the teams, barring the one helmed by Santiago Calatrava, offered undulating terminals held up by coffered roofs and slender columns, with plenty of open space.

The western hemisphere's second tallest tower may soon rise in New York

Prolific developer Harry Macklowe revealed that he had filed a preliminary application with the NYC Department of City Planning for a supertall skyscraper in East Midtown that would reach 1,551 feet. That would make it the second-tallest in the city and the hemisphere after One World Trade, whose spire tops out at 1,776 feet.

Wynn Resorts sues rival for imitating its architectural style

Wynn Resorts is suing Resorts World Las Vegas because the latter's forthcoming Sin City casino will allegedly be too architecturally similar to various Wynn properties. Resorts World's casino is under construction across the street from Encore and Wynn Las Vegas, which are both housed in curved, bronze-glass-clad high-rises.



COURTESY FOSTER + PARTNERS

Patrik Schumacher claims he was forced to drop Zaha Hadid's name from ZHA

A fuller picture of Patrik Schumacher's battle with the three other executors of Zaha Hadid's estate has come to light. Schumacher has laid out a series of allegations against his cotrustees, including claims that he was "forced" to drop Hadid's name from her practice and that he was barred from speaking at her 2016 memorial service.

Amale Andraos and WORKac reveal design for the Beirut Museum of Art

Amale Andraos and her firm, WORKac, are the new designers for the future Beirut Museum of Art (BeMA). Situated in central Beirut, the BeMA will be wrapped in a sculptural promenade of 70 balconies and will symbolize Lebanon's transition from a country plagued by civil war to a unified republic celebrated for its ethnic, religious, and cultural diversity.

Thom Mayne to take over SCI-Arc's cities program

Thom Mayne of Morphosis Architects will be rejoining the Southern California Institute of Architecture (SCI-Arc) as a full-time distinguished faculty member, taking on the position of coordinator for the SCI-Arc EDGE Design of Cities postgraduate program. Mayne is one of the original founders of SCI-Arc.

San Francisco orders historic Neutra home be rebuilt after being torn down

Preservationists in Twin Peaks, San Francisco, were aghast after discovering a 1935 home designed by Richard Neutra had been illegally demolished. On December 13, the City Planning Commission unanimously ruled that owner Ross Johnston must build an exact replica of the house, as well as a plaque detailing the building's history.



TIMOTHY SOAR

For more information and images for all of these stories, visit: archpaper.com/ICYMI

Morphosis unveils a claw-like hotel to replace a legendary L.A. nightclub

Legendary Los Angeles nightclub the Viper Room is set to get an architecturally ambitious replacement courtesy of Morphosis Architects. The 200-foot-tall, 15-story replacement will feature a viselike volume “clamping” down on a more traditional, loggia-adorned tower, and glassy ground-level retail bordered by V-shaped concrete columns.

MIT to consolidate its architecture school in a warehouse revamped by DS+R

MIT’s School of Architecture and Planning is currently scattered all over the university’s Cambridge, Massachusetts, campus, but not for much longer. The university announced that it has tapped New York’s Diller Scofidio + Renfro to convert the historic, redbrick Metropolitan Storage Warehouse into a central design hub.

Seattle boosts building codes for high-rises after study deems them at risk

Seattle is updating building codes for new skyscrapers after the M9 Project, a four-year study that aimed to estimate the effects of a magnitude 9 Cascadia earthquake, revealed that the vast, sediment-filled basin under Seattle can magnify the type of ground shaking that puts high-rises at risk of collapse by a factor of two to five.

University of Illinois at Chicago selects high-profile finalists for new building

The University of Illinois at Chicago has revealed that JohnstonMarklee and UrbanWorks, Morphosis and STL, and OMA and Koo Architecture are competing to design a new Center for the Arts on campus. All teams will have a local partner. The 88,000-square-foot performing arts center will hold a 500-seat concert hall and 270-seat theater.

The Archigram archives are headed to M+ in Hong Kong

After Archigram sold its archives to the not-quite-open-yet visual culture museum M+ in Hong Kong for \$2.37 million in March of 2018, the archive sat for nearly a year while M+ waited for permission to export the collection. That’s all changed, as U.K. Culture secretary Jeremy Wright has approved an export permit.



Boston’s Brutalist City Hall turns 50 and prepares for big renovation

Leading up to Boston City Hall’s official 50th anniversary this year, the Mayor’s Office of Arts and Culture has proposed sweeping updates to the building, originally designed by Kallmann McKinnell & Knowles, that could potentially bring it into the 21st century era of civic and office architecture.

FRONT International names artistic directors for its 2021 triennial

Prem Krishnamurthy and Tina Kukielski have been chosen as co-artistic directors of the second edition of FRONT International: Cleveland Triennial for Contemporary Art in 2021, based in Northeast Ohio. The duo will help curate the large-scale exhibition, which elevates the region as a center of arts and culture.

Hashim Sarkis to curate the 2020 Venice Architecture Biennale

The board and president of the Venice Biennale have chosen Hashim Sarkis as the curator of the 17th Venice Architecture Biennale. Sarkis, the dean of MIT’s School of Architecture and Planning since 2015 and the principal of Hashim Sarkis Studios, is no stranger to the Biennale’s workings, having served as a member of the festival’s international jury in 2016.

All eight border wall prototypes fail basic penetrability test

The eight border wall prototypes in Otay Mesa, California (directly across from Tijuana, Mexico), were assembled in early 2017 after an executive order directed the Department of Homeland Security to design and build a southern border wall. Testing later that year revealed that all eight may be easy to penetrate, including with off-the-shelf hand saws.

Microsoft to invest \$500 million in affordable housing around Seattle

Microsoft has announced that it will invest \$500 million for affordable housing over the next three years across King County, Washington. The \$500 million will be doled out as a series of grants that Microsoft is calling “targeted investments” across three stratified tiers, with \$25 million going toward combatting homelessness in and around Seattle.

Kanye West donates \$10 million to James Turrell’s volcanic crater project

Artist James Turrell has taken advantage of the natural landscape of the Roden Crater in Arizona’s Painted Desert since 1977. The unfettered sight lines and isolated desert landscape are perfect for Turrell’s work, but the project has been unable to reach its \$200 million goal. Now the arts center has received another \$10 million donation courtesy of Kanye West.

Diller Scofidio + Renfro reveals design for London Centre for Music

The \$375 million structure will rise like a twisted block on the site where the Museum of London now stands, and reinterprets the idea of a vertical campus that DS+R used in the Vagelos Education Center for Columbia University in New York City. Work on the new building will begin in 2023.



East

Mission Chinese Bushwick



The Bushwick, Brooklyn, outpost of Danny Bowien’s San Francisco–born Mission Chinese Food opened recently. The new restaurant takes the borderline-psychedelic aesthetics of the downtown spot and re-structures them, this time on a light-bright industrial grid in a space designed by Lauren Devine, Alex Gvojic, and Nikki Mirsaeid. The tubular lighting crossing the ceiling was designed by none other than Nitemind, the studio best known for adding effects to raves and tours of artists like Mitski and Kelela, as well as for their more permanent lights at venues like Bossa Nova Civic Club, also in Bushwick. The overhead LED tubes shift through a rainbow of colors, dousing the space in shades normally reserved for hours much later than dinnertime; fittingly, the restaurant is located in the same ware-

house space as the club Elsewhere. There are also unusual lighting fixtures in the bathrooms—*The Matrix*–themed colored codes descend in obscure calculations down the mirrors—and above the bar, TVs lined up in a row play silent film clips of people dining alone. **Drew Zeiba**

| | |
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| 599 Johnson Ave. Brooklyn, NY | (718) 628-3731 |
| Designers: | Lauren Devine, Alex Gvojic, and Nikki Mirsaeid |

East

New York’s Staircase



New York City’s Hudson Yards self-effacingly describes itself as “the largest private real estate development in the history of the United States.” Built on a raised concrete podium over rail yards, it is physically set off from the city’s surrounding grid and is a private landscape, owned by Related Companies. The developer commissioned Nelson Byrd Woltz Landscape Architects to create a “public garden and square” that opens into the Yards’ commercial buildings and its cultural center, The Shed, designed by Diller Scofidio + Renfro. Into this “public” square Related has placed Thomas Heatherwick’s massive \$150 million folly composed of 154 intricately connected flights of stairs with almost 2,500 individual steps and 80 landings. New York’s Staircase, formerly called the Vessel, cantilevers from a small

base and ignores the city’s urban design requirement that public spaces be open to the sky. Nevertheless, Mayor Bill de Blasio has dubbed it “one of the great public squares of New York City.” The sculpture opens on February 15, when the public will have the chance to agree or disagree with the mayor. **William Menking**

| | |
|---|--------------------|
| Public Square and Gardens, Hudson Yards New York | |
| Designer: | Heatherwick Studio |

East

House of Pure Vin



House of Pure Vin is a minority-owned wine shop in downtown Detroit contributing to the revival of the city’s historic Woodward Avenue. Architect Christian Unverzagt from M1/DTW helped transform the 3,000-square-foot space into a sophisticated wine tasting shop and tourist attraction. Unverzagt converted a twisted and irregular retail space into a series of smaller rooms—including a climate-controlled champagne room, recessed retail nook, and tasting room—to provide a sense of visual clarity and allow the space to slowly unfold to reveal new activities to visitors. The shop holds over 4,000 bottles of wine, displaying the majority of them within a wall of [cardboard] tubes typically used for manufacturing. The tubes serve

as wine racks, an eye-catching way to store the bottles sideways and shield them from light. Cork is used for various surfaces within the shop, including the walls and cash wrap, acting as a warm contrast to the black steel and industrial materials elsewhere in the store. **Ali Oriaku**

| | |
|-------------------------------|----------------|
| 1433 Woodward Ave. Detroit | (313) 638-2501 |
| Designer: | M1/DTW |

West

Peter and Merle Mullin Gallery at ArtCenter College of Design



The Peter and Merle Mullin Gallery at ArtCenter College of Design in Pasadena, California, is a car-centric experience, inside and out. Not only has the 6,800-square-foot indoor-outdoor exhibition space been designed by Darin Johnstone Architects to function as a “state-of-the-art automotive and fine art gallery,” it is also perhaps best experienced from the seat of a car. The gallery fronts the street with a 12-foot-tall supergraphic undulating fin wall made up of 67 steel blades that can only be read from a distance. Depending on the viewer’s direction of travel, the fins spell out either *Mullin* or *Gallery*, an optical effect that allows passing automobiles to become “an instrument for viewing art,” according to the architect. Cars take prominence inside the gal-

lery, as well, which has been designed to showcase the patrons’ eclectic antique automobile collection. To facilitate the flow of vintage cars in and out of the space, it features car-width sliding glass doors. The long, linear interior is framed by semicircular walls and curbs whose geometries correspond to the turning radii of modern cars. After an inaugural coupe-heavy show, the space will live on as an art venue for student work and traveling exhibitions. **Antonio Pacheco**

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| 1111 South Arroyo Pkwy. Pasadena, CA 9110 | 626-396-2200 |
| Architect: | Darin Johnstone Architects |

Taipei-ing the Price

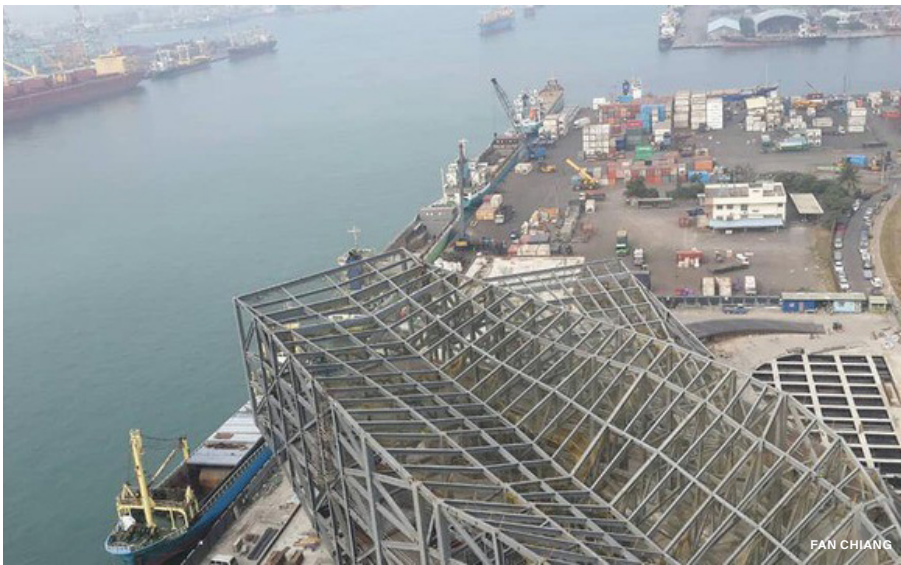
Reiser + Umemoto's Kaohsiung Port Terminal building caused a temporary panic in Taiwan after a rumor spread on the internet that the building had collapsed.

Taiwan News reported that a photograph of the building, which is still under construction in Kaohsiung, Taiwan, was shared on Facebook with a caption saying that the structure had collapsed when, in reality, everything was completely fine. Apparently, the appearance of the building's unconventional design led people to believe that something had gone wrong.

The rumor started benignly enough.

Fan Chiang of New Taipei City received a message from a friend with a joke saying that the building had collapsed, but Fan believed that the building had actually fallen and posted an alarming message in a Facebook group, where the news was believed and spread panic across the country. Fan took down the post when he realized that the news of the collapse was a joke, but it was too late to quiet the online storm.

Under Taiwanese law, Fan is guilty of spreading misinformation and faces criminal charges.



What the L?

Brooklynites rejoiced after Governor Andrew Cuomo announced an emergency plan to avert the L Train shutdown. Flanked by engineering professors from Cornell and Columbia, Cuomo proposed keeping the train running by wrapping the crumbling Canarsie Tunnel in fiberglass and suspending new electrical cables from racks, leaving the crumbling tunnel wall untouched.

The plan set off a firestorm. "Board approval is the proper way to proceed," MTA board member Andrew Saul told the *New York Post*, calling Cuomo's decision to push the plan through without board approval a "giant mistake." In a leaked internal MTA

document, the agency predicted that Cuomo's plan would bring on massive delays and an unprecedented amount of onboard crowding. The new contingency bike lanes along 14th Street have been left half-installed, and residents are demanding that they be ripped up and returned to parking spaces. Hundreds of contractors involved with the prior MTA plan to shut the tunnel for 18 months may also go unemployed. Rewriting the contracts alone could take a year or more.

The worst part? Cuomo's plan could mean up to five years of night and weekend construction.



Live to PoMo another day

What's up with Pershing Square?

Two years after an international design competition and the selection of an Agence Ter-led plan, Pershing Square's kitchy Ricardo Legorreta design lives on.

Something's not right. First, Pershing Square Renew, a public-private partnership started by local Los Angeles City Council member Jose Huizar that is orchestrating the renewal project, went abruptly

silent last summer. Then, a project update scheduled for late November was quietly cancelled as word consumed the city that Huizar and others in city government were being investigated by the FBI. Yikes.

No one has been charged with a crime, most likely because the greatest crime—tearing down Legorreta's 10-story purple stucco bell tower—hasn't been committed. Not yet, at least.

Midnight Cowboys

Need to wear a hard hat but also dying to express yourself? Well, if you are a cowboy at heart, then you are in luck. Cowboy hard hats are definitely a thing, and you can get

them at various online outlets. Don't be another guy in a norm hard hat, giddy up and grab one of these OSHA-approved bad boys today!



A Cold Design

How did OZ Architecture plan an Antarctic base?



Top: The window-to-facade ratio was cut to 11 percent across the campus, but preserves views. **Bottom:** OZ has proposed a flexible lecture area and common space for presenting research.

Extreme architecture, much like science, is a collaborative and evolving effort, especially in an environment that can swing between 40 degrees Fahrenheit in the summer to 40 below in the winter. Enter Colorado's OZ Architecture, which has master planned and partially designed a research base for the National Science Foundation (NSF) on the southernmost sliver of land in the world.

OZ was tapped by the NSF and contractor Lockheed Martin in 2012 to revamp the aging McMurdo Station, a sprawling former navy base on the New Zealand-claimed McMurdo Sound. McMurdo is the largest outpost in Antarctica, with 105 different inhabitable buildings, 22 warehouses, and a population that fluctuates between 250 in the winter and up to 1,250 in the summer.

The challenge of building in Antarctica, one of the driest, coldest places on Earth, is compounded by sea ice and unstable runway conditions that render the continent inaccessible most of the year. Diesel generators power everything on the continent, and the howling wind can blow up to 115 miles per hour.

Currently, McMurdo Station is incredibly inefficient: Food is stored in a separate building from where it's prepared, the circulation paths for pedestrians and vehicles often overlap, and single-pane glass is used throughout most of the campus. A container ship and a five-million-gallon diesel tanker provide fuel, supplies, and food once a year.

The first thing that OZ corrected in its master plan was to cut the number of buildings down from 105 to 17. The new

300,000-square-foot campus will condense the dining area, gym, laboratories, living quarters, offices, post office, auditorium, and food prep areas into a collection of six core buildings.

OZ has also arranged the programmatic elements according to temperature. Much like the human body, the coldest buildings—the warehouses—will be kept at the edge of the station at a chilly 40 degrees. Moving inward, the circulation spaces will be kept at 55 degrees, the dining area at 65, and the kitchen at 75.

Condensing the entire campus and expanding the station's currently meager use of wind and solar power will likely cut the station's energy use by half and save tens of millions of dollars. OZ expects that the diesel tanker will only need to stop by every other year, and that up to 400 support jobs will be cut, as fewer truck drivers and maintenance people will be needed.

Instead of pouring a foundation, each building in the new McMurdo Station will be lifted off the ground by steel legs, which will rest on top of the Antarctic ice sheet. The heat from the underside of each building won't melt the permafrost below, and wind-blown snow won't accumulate at their bases.

OZ has designed 35 percent of each building, providing a template for the design-build contractors, Leidos—who took the project over from Lockheed Martin after a 2016 merger—to build off of. The project has undergone its external final design review at the NSF, and the renovation is expected to last eight to ten years.

Jonathan Hilburg

Moving Mountains

Henning Larsen creates a golden town hall for a migrating town in Sweden.



Kiruna's new Henning Larsen-designed town hall sandwiches municipal offices between gold-tinted public spaces.

Kiruna, Sweden, is a small town on the edge of the Arctic Circle that exists almost solely to serve the world's largest iron ore mine. After over a century of aggressive mining, however, soil subsidence, sinkholes, and other geologic anomalies are threatening to destroy the town.

Facing this dire future, local officials crafted a 100-year plan in 2004 with Stockholm, Sweden-based White Architects to gradually relocate the 18,000-resident settlement 2 miles to the east. The plan will transform Kiruna into a collection of urban neighborhoods interspersed with arctic landscape and parks.

Central to that vision is the idea that the government and its citizens must work together closely and transparently to ensure an equitable transition. Danish architects Henning Larsen, tasked with turning this ethos into built form, have delivered by crafting a democratic new city hall that wraps stacked public spaces with humdrum municipal offices.

Henning Larsen partner Louis Becker said, "We knew that losing a sense of place could be a major challenge to the town's residents. Our hope is that this town hall is not only an effective seat for the local government, but a space that celebrates Kiruna's history and establishes an enduring symbol of local identity."

In order to meet these goals, the new town hall is designed to have a somewhat divergent relationship with the structure it is replacing. For one, the original town hall—faced with red brick and designed in a pragmatic Nordic modernist style in 1958 by Swedish architect Arthur von Schmalensee—was much more stoic than its golden, vertically oriented, stone- and metal-clad replacement. Whereas the original was organized as a series of repetitive slabs, the new structure is more donut-shaped in section and features a new county art museum at its core.

To foster a connection between old and new, an iconic rooftop clocktower from the original town hall was saved and is now installed beside the new building. There, it will anchor a generous outdoor plaza that will one day be framed by offices and apartments. The spare steel and metal clock tower is topped with bells and features a gold-rimmed timepiece, an element the architects tapped into as inspiration for the new structure, which is faced inside and out with 5,600 golden metal panels.

On the ground floor of the building, a cafe, restaurant, and large public meeting room encircle a multistory foyer complete with a public stage. The space, designed to function as a giant living room for the city's residents, is topped by a staggered central core that frames a soaring atrium wrapped with offices. The interior catches the subarctic light as it beams in from overhead transom windows and bounces off the golden walls.

On the fifth floor, a double-height council assembly room is outfitted with public viewing stands and joined by several large gathering areas and a canteen. Each living room, framed by high walls covered in the aforementioned metal panels, is filled with tables and chairs oriented around picture windows that peer out over the landscape. As is the case with the ground floor public spaces and the circular walkways that overlook the atrium, the upper levels offer cozy, domestic qualities. Here, the golden walls mimic the qualities of wood while long, curved handrails made of oak and salvaged door handles (repurposed from the original city hall) bring tactile warmth to some of the most immediately accessible aspects of the building.

The result of the redesign is a series of welcoming public spaces that will give Kiruna residents the opportunity to keep an eye on their drastically changing city both from the ground and up above. **AP**

Yes We Span continued from front page girders weighing 3,000 tons each. The Main Bridge is also divided into three cable-stayed bridges designed to allow cargo vessels to pass underneath on their way to the Hong Kong International Airport or the South China Sea. The other two sections of the HZMB include link roads that connect Hong Kong and the airport with the Main Bridge and Zhuhai.

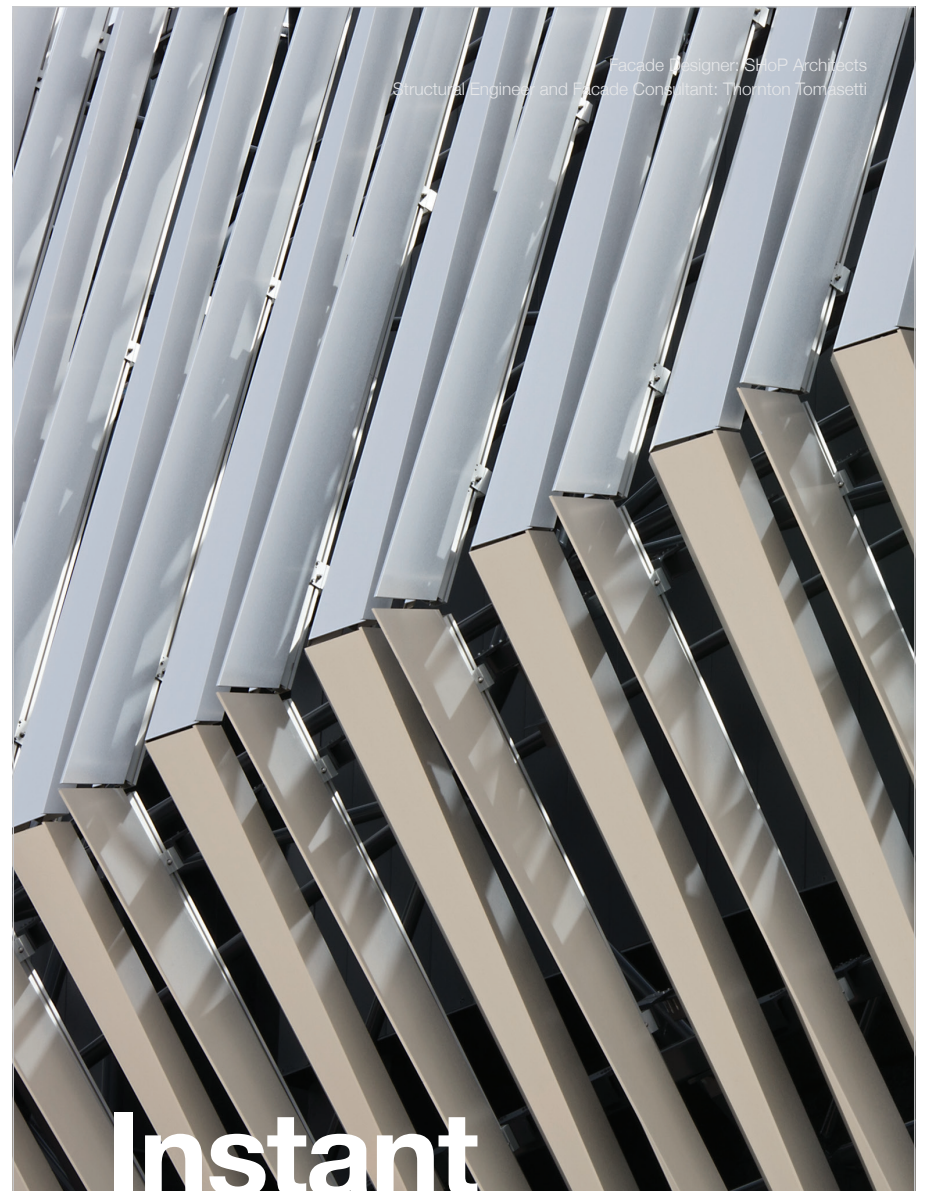
Although the completed HZMB boasts several record-breaking design features, including its structural lifespan of 120 years and ability to withstand a magnitude 8 earthquake, the project initially suffered from serious setbacks. Not only were there major construction delays and cost overruns due to material inflation and

design changes, but the bridge was also jeopardized by a safety testing scandal—proved false—that involved the arrest of 21 employees contracted by the Civil Engineering and Development Department. Additionally, the mega-bridge project sparked outrage from wildlife conservationists who feared the decline of the local white dolphin population due to construction interference.

Despite all this, the HZMB opened to vehicular traffic in late October. Because the now-connected cities are located in such close proximity, the bridge impressively cuts car travel time from Hong Kong to Zhuhai from four hours to just 30 minutes. **Sydney Franklin**



The new Hong Kong-Zhuhai-Macao Bridge stretches 34 miles across China's Pearl River estuary, dipping underneath the sea and rising above it as a six-lane viaduct.



Instant Replay

With four consecutive Stanley Cup victories in its history, the **Nassau Veterans Memorial Coliseum** is a beloved fixture of Long Island life. When the owner of the 1972 arena decided to reward fans with a renovation worthy of its storied past, it reimagined the venue with an overcladding that would bring new life to the facility. With a design by **SHoP Architects** and **Thornton Tomasetti**, the new folded-ribbon facade of composite aluminum fins connects to the original structure with a minimum of intervention, ensuring thoughtful reuse of a venue that still has a lot of wins in its future.

Read more about it in **Metals in Construction** online.

Ornamental Metal Institute of New York

WWW.OMINY.ORG

Drowning continued from front page The Conrad Maldives Rangali Island has officially announced the opening of the world's first underwater hotel residence, a groundbreaking, two-story villa submerged more than 16 feet below sea level in the Indian Ocean. The deep-set dwelling, designed by Maldavian architect Ahmed Saleem with interiors by New York-based Yuji Yamazaki Architecture, is an ambitious display of architecture, design, and technology.

The villa is named The Muraka, which means "coral" in Dhivehi, the Maldives' native language, for the way it rests on the ocean floor. The structure is composed of concrete, steel, and acrylic glass, with a spiral staircase and private elevator to aid guests in their descent below sea level. Once underwater, the structure's glassy tunnels and see-through walls—made up of only a slender, acrylic dome—separate the spacious living quarters from the adjacent tropical reef.

Equipped with a private bar, butler's quarters, gym, and infinity pool, the sunken retreat embraces luxury. The massive bed, shower, and bathtub in the underwater lower level have 180-degree, panoramic views of the ocean, and the top floor, which rests above the water, comprises a sprawling relaxation deck for tanning and unwinding.

The elaborate suite isn't cheap. It is only available for a four-night, \$200,000 vacation package, which includes a personal chef, private boat, and an automatic upgrade to Hilton Diamond status. In addition to The Muraka, the Conrad hotel is home to Ithaa, a five-star undersea restaurant which opened in 2005.

The construction of The Muraka was both innovative and environmentally conscious. Each piece of the 600-ton lower level was built in Singapore and then transported to the Maldives via a specialized ship before being plunged underwater and anchored firmly in place using ten concrete pilings. The sturdy pilings ensure that the villa does not shift or downright float away amid high tides or rough waves. The acrylic enclosing the lower level was supplied by Nippura Co., a Japanese aquarium manufacturer, and sealed with Shin Etsu Marine sealant. The architect also opted to work with a team of marine biologists to guarantee that the sprawling villa would not disturb the surrounding seabed, including the coral from which it derives its name.

For travelers who aren't brave enough to spend four nights in the depths of the Indian Ocean, the Conrad also boasts a number of luxury villas that sit on stilts above the water. **AO**



Top: The submerged bedroom and bathroom have panoramic views of the ocean. **Above:** Guests can enter the two-story villa via a long ocean boardwalk that is connected to the main resort.



One for Mall, Mall-for-one

New Jersey's 3-million-square-foot megamall to open after 16 years of delays.



COURTESY TRIPLE FIVE GROUP



Top: The sprawling, billion-dollar project will become the nation's largest shopping mall.
Above: The enormous complex will contain an NHL regulation-size year-round ice skating rink.

Now that construction is reaching its final stages, one of the largest and most extravagant malls in North America is set to open this April after 16 years of delays. At an astonishing 4.5 million square feet, the enormous complex, dubbed "American Dream Meadowlands," will contain the largest indoor ski slope in the western hemisphere, a 235-foot-wide observation wheel with views of New York City, a deep-sea aquarium, a LEGOLAND, an NHL-size ice rink, a 4-D theater complex, and "Nickelodeon Universe," an 8-acre theme park, and a water park.

The massive, five-billion-dollar project is headed by Canadian mall developer Triple Five, owner of Mall of America and the proposed 500-acre American Dream Miami, which, if built, will become the largest shopping mall in the United States. American Dream Meadowlands, though smaller than its sisters, is conveniently located next to MetLife Stadium in East Rutherford, New Jersey, within eyeshot of Manhattan.

The site will also boast a 200,000-square-foot complex dedicated to luxury shopping. "The Luxury Collections," as the complex will be known, will feature a Saks Fifth Avenue and other high-end retailers.

In addition to retail, American Dream Meadowlands will be one of the largest culinary centers in the country, with 50 takeout options, 20 restaurants, the world's first Kosher food hall, and a VICE-branded food hall dubbed "Munchies" after the company's trendy food blog. The food hall is equipped with 14 stalls, a state-of-the-art cooking studio, and two kitchens that will showcase budding chefs.

The New Jersey megamall will also comprise "Big Snow America," a 16-story, year-round indoor ski and snowboard park complete with a lodge and ice-climbing wall. "Nickelodeon Universe," the mall's indoor theme park, which includes two record-holding rollercoasters, and an 8-acre DreamWorks-themed water park both sit comfortably inside climate-controlled glass domes.

Construction at the site has been a massive burden on the state, as it began nearly 14 years and three developers ago. The ostentatious project, which has been regarded as "the ugliest damn building in New Jersey and maybe America" by former Governor Chris Christie, began in 2003 after the state signed a \$160 million contract with the Mills Corporation and Mack-Cali Realty Corporation. Construction did not commence until 2005, and after a decade of stalled progress, picked up in 2015 once the site was bought by Triple Five.

Since Triple Five took over, American Dream Meadowlands is on target for an April 2019 opening and is estimated to attract up to 40 million visitors per year, half of whom are expected to be New York City tourists. To ease the commute to American Dream, there will be a shuttle from the New Jersey Transit station and a bus route from Port Authority.

American Dream Meadowlands will cost roughly \$5 billion upon completion, and it will be the third-largest shopping center in North America after West Edmonton Mall and Mall of America. **AO**



Shaking Bad

In New York, passing subways can shake entire buildings, but that wasn't an option for Columbia University's new **Jerome L. Greene Science Center**. Home to sensitive laboratory and imaging equipment requiring exceptional stability, the design by **Renzo Piano Building Workshop** relies on a steel structure to reduce floor vibrations to a miniscule 2,000 mips. Even as the elevated No. 1 train roars past, this helps ensure that nothing distracts from the scientific advances being made within the center's unshakable walls. Read more about it in **Metals in Construction** online.

 **Steel Institute of New York**

WWW.SINY.ORG

X-treme Construction

Architects go to great lengths (and heights) in the pursuit of high design.

Throughout history, many great works of architecture both large and small have been made possible only through incredible feats of engineering and construction. In today's world—where office and residential towers reach ever-increasing heights, new cities appear in an instant, and stringent safety and structural requirements make building arduous and time-consuming—architects must draw on their experience and know-how to bring innovative new projects to life.

Three recent projects by American architecture firms highlight the lengths designers can go (and heights they can achieve) in pursuit of great design.

Seattle Space Needle Olson Kundig

The Space Needle in Seattle is a superlative building through and through. Built in 1962, the flying saucer-shaped observation tower was recently renovated by Olson Kundig and a daring team of contractors and engineers, including Hoffman Construction, Arup, Fives Lund, and Magnusson Klemencic Associates.

To achieve their goal of modernizing the structure, the project team had to work delicately to make sure the weight of added and subtracted materials balanced out, while also ensuring that the majority of the new components could be transported up the needle's two passenger elevators. Beyond these exacting specifications, crews also dealt with a jobsite located some 500 feet up in the air as they worked to install new panes of glass around the Space Needle's flying saucer-shaped Top House.

For the project, Hoffman and associated contractors erected a giant covered platform directly underneath the Top House to stage construction activities. The massive structure was lifted into the sky and built out from key hoist points, according to Bob Vincent, project manager at Hoffman. The platform, designed to function more or less like an oil rig deck, was used to stage construction so that workers could access the Space Needle's Top House from below. The stage created something akin to a massive cocoon around the base of the Top House, and its associated enclosure kept workers protected from the elements.

Hoffman said, "With the full enclosure, the workers weren't freezing and materials didn't fly around too much. It kept wind and elements out, too. When we were done with the project, we dismantled the ring by bringing in all the components from the edges toward the middle."

Embassy in Chad Moore Ruble Yudell Architects

A new American embassy campus in N'Djamena, Chad, by Santa Monica, California-based Moore Ruble Yudell (MRY) posed a different set of construction and site limitations.



Top: Workers on the Space Needle project labored nearly 500 feet in the air and were aided in their efforts by a special robot that helped lift 48 2,300-pound glass panels into place for installation.

Above: The project required the installation of a massive steel platform that was used to stage construction and keep workers and materials safe from the elements.

Located in a remote region of the country with a small pool of skilled labor, it fell on the design team to create a state-of-the-art building that could be constructed using locally available materials and building techniques. The approach for the technically complex and decidedly low-tech project was to blend simple finishes and off-the-shelf components with the aim of creating lively but humble buildings.

The complex was erected using site-poured concrete walls and modular roof pieces, elements that helped meet the strict security and functional requirements for the embassy. The cementitious walls were then wrapped in exterior rainscreen paneling made up of thin-shell concrete and metal latticework. The lightweight panels, available in standard sizes that could be shipped easily to the site, were chosen to add color and patterning to the pragmatic buildings. In certain areas, including between the main lobby and the cafe, lightweight canopies were strung to create shaded outdoor areas and to collect rainwater. A new, centralized energy plant connected to solar panel arrays was also included in the off-the-grid project.

Alexander Residence Mark English Architects

While working on extensive renovations to an existing five-story cliffside home in the San Francisco Bay, Mark English Architects (MEA) was only able to deliver construction materials and remove debris via floating barge.

With the closest road nearly 200 feet away from the waterfront home and accessible only by steep stairs and a cable car funicular, the design and construction team had to rent several barges to undertake the project.

Located on the bayside face of Sausalito, MEA's Alexander Residence is conceived of as a getaway spot for a client with an extensive art and furniture collection. For the renovation, MEA and GFDS Engineers worked to open up the 1970s-era home by removing some of the unnecessary interior partitions that marked its original pinwheel design. Along the lowest level, for example, facing the house's private dock, a closed-off bedroom and living area were combined to create a studio apartment. Farther up, a home office, living room, and kitchen were united to form a great room-style arrangement with an elevated dining room, pass-through kitchen, and living area oriented around multimillion-dollar views of downtown San Francisco, Angel Island, and Alcatraz.

"We rebuilt the house from inside out," principal Mark English explained. "Everything we demoed, including the roofing, old doors and windows, and drywall, had to go out through the dock by barge." The same was true for all of the replacement materials coming in, including new lengths of structural steel that were added for seismic resiliency and to transfer loads over some of the new window openings. For these elements, the contractors added a crane to the barge that was then used to lift the steel beams into place.

English added, "We talked to two or three builders before settling on Landmark Builders. The others would inevitably bring up how difficult and expensive it would be to do this project. Luckily, we eventually found someone who thought it would be interesting to take on this out-of-the-ordinary project." **AP**



U.S. DEPARTMENT OF STATE/BUREAU OF OVERSEAS BUILDINGS OPERATIONS.



COURTESY MARK ENGLISH ARCHITECTS

Top: The challenging American Embassy in N'Djamena, Chad, required the use of modular, prefabricated, and site-built components, including simple, site-cast concrete walls.

Above: Because the Alexander Residence project site was only accessible via a private dock, all of the construction materials and demolition debris had to be brought in and taken away by barge for the San Francisco Bay-facing home.

Farren International

The global logistics firm—and its fleet of trucks—mobilizes large payloads across the globe.



COURTESY FARREN INTERNATIONAL

Farren stores hundreds of glass facade panels in its two outdoor storage facilities in New Jersey, both measuring dozens of acres.

Farren International, a one-stop-shop logistics operation founded in 1959, has carved a niche for itself shipping extra-extra-large items. Operating across most of the European Union, North America, and the United Arab Emirates, the outfit transports over one million tons per year globally by plane, train, and automobile (and a significant number of cargo ships). The company's principal storage facility, a 400,000-square-foot warehouse in Ledgewood, New Jersey, is littered with shrink-wrapped Chinook helicopters, stacks of Yamasaki motorcycles, and 30-foot power turbines, among other items. Over the last decade, Farren International has embedded itself in leading mega-developments across New York City, transporting all of the facade cladding for towers such as New York's Freedom Tower, and 15 and 55 Hudson Yards.

With a fleet of 75 heavy-duty brand trucks, such as Osh Kosh, Peterbilt, and Kenworth, Farren International has established itself as an expert in the transport of superloads—an indivisible load surpassing 16 feet in height and width, 125 feet in length, and in excess of 200,000 pounds—or as CEO and

president of Farren International, Phil Antonucci, puts it, cargo that is “high, wide, and heavy.”

The herculean task of corralling facade components from across the globe is often overlooked in the construction process: It includes the warehousing of thousands of tons of material in an orderly fashion and ultimately shipping components to construction sites. An in-house workshop at the New Jersey facility—hidden behind countless shelves and mountains of cargo, including enormous turbines and transformers—is charged with customizing flatbeds and other means of specialized transport for particular items.

Considering the sheer lumbering mass of these transports—formats include tandem trucks hauling up to 140-foot-long modular trailers—plotting routes is akin to planning a minor military campaign. Scouts armed with measuring instruments and high poles spend up to one month at a time surveying potential routes, testing corners and overpass heights to ensure that convoys arrive at their location undamaged and on time.

Matthew Marani

15 Hudson Yards

Diller Scofidio + Renfro's recently completed 15 Hudson Yards is a 914-foot-tall residential skyscraper clad in a multitude of facade materials. For the project, Farren International collaborated with Related Companies-affiliated New Hudson Facades to transport curtain wall panels to the construction site. Assembled just south of Philadelphia, the panels were first trucked more than 100 miles to Farren's multi-acre storage facilities in New Jersey. Over the course of two years, Farren shipped approximately 36 panels a day to the construction team on the ground for erection, with the panels weighing between 3,000 and 5,000 pounds each.



Transformer Transport

When Farren International is not transporting hundreds of tons of facade components or hulking military equipment, the logistics operation is moving crucial infrastructural components across the globe. In 2016, the team plotted the journey of a 415,000-pound transformer from a manufacturer in Brazil to Port Newark in New Jersey. From this juncture, the team loaded the transformer onto a barge that was pushed up the Hudson River and through the Eerie Canal to Rochester, New York. Once on land, the transformer was lifted onto a Goldhoffer trailer, pushed forward by two tandem Oshkosh trucks, and installed at a local electrical substation.



Chinook Helicopters

The CH-47 Chinook is a 99-foot-long heavy lift helicopter with a potential payload of over 10 tons. When decommissioned by the United States Armed Forces and other purchasers of Boeing's military-industrial wares, Chinooks begin a new life as civilian aircraft. Since 2014, Farren International has transported dozens of these double-rotor helicopters—2,500 miles on land from Meridianville, Alabama, to Columbia Helicopters in Oregon—on their fleet of flat-bed trucks with an in-house-designed set of fittings and equipment, including customized nose and wheel cradles and upgraded lifting devices. In addition to the Chinook, Farren International transports a motley crew of smaller aircraft, including the Sikorsky S-92, the UH-60 Blackhawk, and even decommissioned Air Force Ones.



2019 Emerg Voices

The Architectural League
of New York delivers
another solid class of up-
and-coming talent from
across North America.

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Centro de Colaboración Arquitectónica

This collaborative studio is an inclusive activist practice. *By Antonio Pacheco*

At ages 34 and 35, respectively, Bernardo Quinzaños and Ignacio Urquiza of the Mexico City-based Centro de Colaboración Arquitectónica (CCA) already have over a decade of experience working toward their goal of using architecture as a “tool for change.”

Since its founding in 2008, CCA has completed over two hundred projects with the help of many interdisciplinary collaborators, including builders, contractors, and nonprofits. The firm, an organization dedicated to the “research, conceptualization, and development of architectural and urban projects,” according to the architects, combines tastefully exuberant buildings with socially driven programming—the goal being to enrich the practice of architecture. With a deep interest in local building traditions and a passion for collaboration between adjacent professionals and craftspeople, Quinzaños and Urquiza pursue building as a social and creative enterprise.

For example, the firm recently completed a new campus for the State of Mexico Boys and Girls Club, an organization for at-risk youth, comprising three spartan educational buildings linked by an arch-covered concrete walkway. Just as the human spine is made up of two dozen vertebrae, the walkway is composed of 24 pairs of intersecting concrete vaults generously proportioned for group conversation. The walkway connects classrooms and spaces for the performing arts and sports programs with a sunken amphitheater and plaza that constitute the center’s beating social heart.

Urquiza explained, “We’ve always had a particular interest in architecture that is precise, yet at the same time has the flexibility of being able

to give itself to each space.” He added, “Ambiguity is what gives architecture the freedom to be owned by its users.”

One way CCA imbues its projects with this desired ambiguity is by creating many different kinds of covered outdoor spaces to establish architecturally focused social condensers.

In their Escuela Bancaria y Comercial Aguascalientes project, for instance, CCA inverts the approach taken at the Boys and Girls Club by designing an inwardly focused campus centered on broad internal hallways and exposed single-loaded corridors. A central concrete-lined courtyard is the epicenter of consecutive circulation rings that connect formal classrooms and libraries with public living rooms to help create areas where students’ minds can wander and extended conversations can take place.

In the firm’s more conventional commercial and residential projects, the designers make skillful use of layered spaces to add a human dimension to larger-scale buildings. Casa Moulat, a wedge-shaped residential golf compound north of Mexico City, for example, uses mud-colored concrete walls to frame a pair of long-span openings that dematerialize to form a living room open to the landscape on two sides. At Casa Moulat, as with so many CCA projects, landscapes, materials, and buildings come together both physically and conceptually.

As Urquiza sees it, their approach is a pragmatic one: “For us, it’s very important to understand what we have available nearby and use it in a precise manner. Economy of means is a fundamental concept in our practice.”

Club de Niños y Niñas de México



ONNIS LUQUE

Casa Moulat



LUIS GALLARDO/LGM STUDIO

Escuela Bancaria y Comercial Aguascalientes



ONNIS LUQUE

UUfie

The Toronto-based practice has finished projects around the world that play with architecture's place in nature. *By Jack Balderrama Morley*

Despite being just ten years old, UUfie has snagged commissions in high-profile locations around the world that any practice would envy. Few firms of a comparable size have worked in three continents, and UUfie's founders are aware of the benefits of having worked around the world; they credit their global experience with bringing "more cultural awareness and diversity in thinking" to their practice.

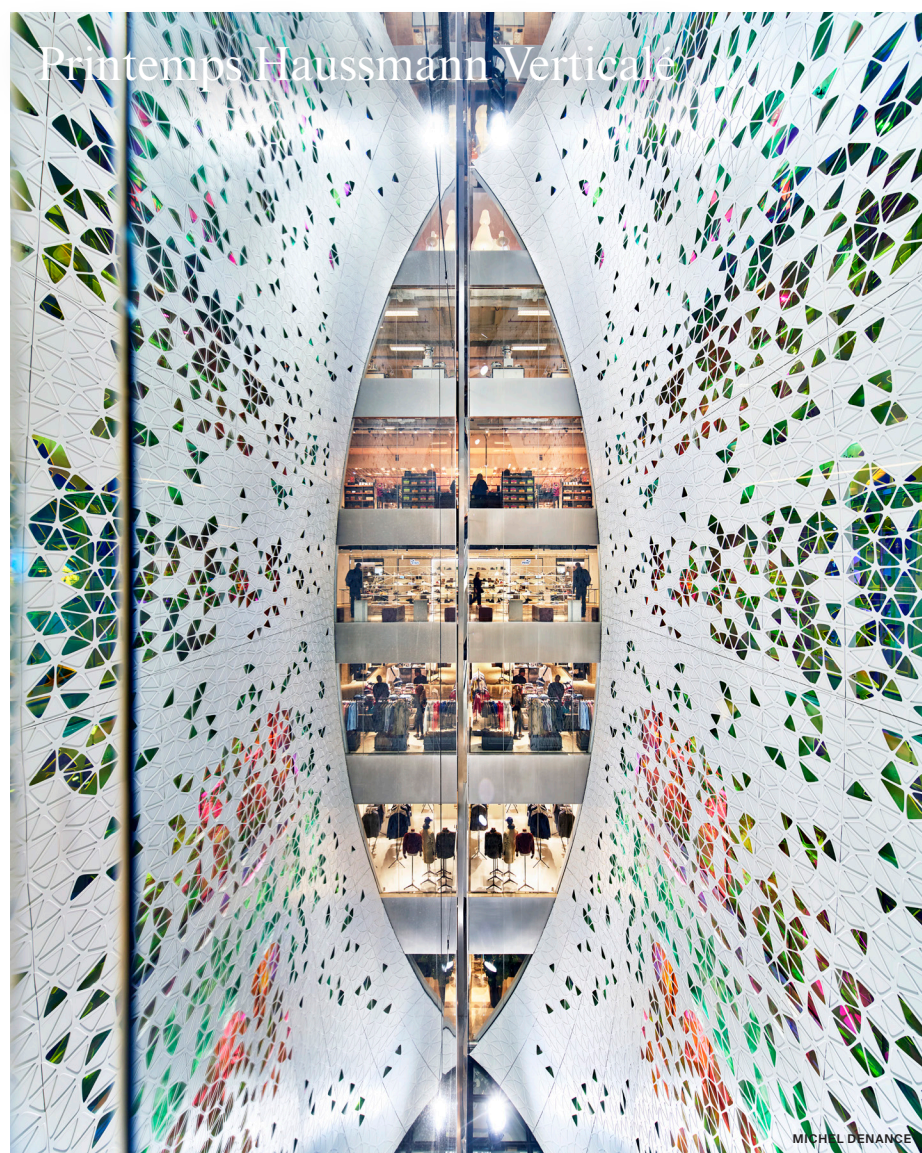
The firm was founded in 2009 by Irene Gardpoit and Eiri Ota in Tokyo, where the two met while Ota was working at Jun Aoki & Associates and Gardpoit at Arata Isozaki & Associates. Their firm's first project was a residential commission from a local family in Tokyo—where Paris-born Ota grew up—and there the practice grew for a few years before moving to Toronto in 2013. Gardpoit is a native of the Canadian city and said that the move was a fresh opportunity for the firm.

"In Canada, there is a growth in supporting Canadian talent and potential for establishing a vibrant design scene that is broadening its perspective. In Japan, this scene is highly established and appears to lean now toward a retrospective view," Gardpoit said. "Canada is a culturally diverse country in comparison to Japan. This diversity brings on its challenges, but it is also unique in that it does not necessarily have its own established identity. It allows us to experiment."

UUfie frequently experiments with architecture's relationship to nature, a theme that could lend itself to cliché in other hands—UUfie keeps it fresh by staying stylistically flexible

and thinking broadly. For the landmark Parisian department store Printemps Haussmann, UUfie was tasked with creating a new vertical circulation space in the retailer's historic home. The practice took its cue from the building's Art Nouveau stained glass depictions of plants and flowers, reinterpreting the decorations' supple arcs and florid colors for the 21st century with a triangulated screen that hovers over a seven-story wall of kaleidoscopic dichroic glass running alongside the building's escalators. "Colorfulness was the essential part," Ota said. "It creates interaction as people go up and down the escalator."

Lake Cottage, a small home in the woods for a large family, has a more direct relationship with nature—it would be hard for it not to, given that it's in the middle of a Canadian forest. Although the cottage adopts some conventional cabin tropes, like wood siding and an A-frame structure, it cleverly plays with these norms, twisting the retreat into a sleek fun house. It's a bit difficult to grasp with words—a product of UUfie's spaces' subtle complexity—but essentially, the living room is nested inside the building's frame like a Russian doll, with windows in the main space punched out to those surrounding it so that people in an above loft can peek in on those below. That same loft is lined with abstracted exterior shingles so that the living room "skylights" seem to be looking up at another building's roof. It's a funny mind trick that testifies to the firm's ability to surprise with an economy of means, regardless of locale.



Waechter Architecture

Clarity is key for this popular Portland practice. *By Sydney Franklin*

For Ben Waechter, practicing architecture is an investigation into creating spaces with clarity. As founder of the Portland, Oregon-based firm Waechter Architecture, he tries to design buildings that feature clear, visual identities that resonate with the people who experience them.

The way the firm tackles this goal is through an informal, ongoing study Waechter calls “The Clarity Project.” He encourages his team to analyze their projects, and those of others, at every stage, from schematic design to post-construction. In doing this, they aim to discover the best ways to create a distinct internal logic for an individual design and reveal the underlying relationships that make it successful.

“To us, a strong sense of clarity tends to be in places that simply feel the best to be in,” he said. According to Waechter, that’s one of the main themes that must be teased out when reviewing a project.

Another theme is composition. The firm’s Tower House, built in 2014, presents a tubular facade with large-scale cutouts that organize the interior. It is situated on a steep site previously deemed “unbuildable,” so Waechter’s team envisioned the four-story home as a stacked structure. “We spend a lot of time making sure our projects are distilled down to a composition that’s whole and complete by itself,” he said. “If you take one point away or add something, it doesn’t work anymore.”

Equally important is creating clarity of fig-

ure-ground. Waechter determines the programming within a building from the beginning. “We like to think of our plans as being carved out of a building mass and then using pochés as secondary support spaces.”

This strict editing process, as well as the firm’s clear commitment to minimalism, is inspired by Swiss architecture and Waechter’s own architectural journey. As a former employee of Renzo Piano, he takes the refined details seriously. “There’s a constructional logic to Renzo Piano’s buildings,” he said. “One similar thread between our work and his is that we also try to include a few details done really well in order to create a stronger identity.”

In some cases, Waechter distinguishes his architecture by simply framing views of the surrounding locale. For a recently completed project at Furioso Vineyards in Dundee, Oregon, the firm designed a glass-enclosed tasting room on a raised platform. The height allows guests to feel as if they’re hovering above the vineyard while simultaneously connecting them with the wine-making process.

If one thing is clear, it’s that clients are attracted to Waechter Architecture’s meticulous attention to detail and old-school analytical practices. Though its award-winning portfolio largely showcases expertise in single-family home design, with the vineyard project and its upcoming Society Hotel in Bingen, Washington, the firm is branching out into new territory.



MODU

This multi-disciplinary practice is equipped to take on any task. *By Jimmy Stamp*

Phu Hoang and Rachely Rotem are architects without borders. This is not to say they're traveling around the world doing good where it's most needed—although they are indeed doing both of these things. Rather, they're working toward an urban future that fosters deeper and more direct connections between people and places. It's not just a form of design, says Rotem, "It's a form of well-being."

Their Cloud Seeding pavilion elegantly embodies this connection between architecture and the environment. Designed to shade a sun-battered plaza in front of the Design Museum in Holon, Israel, the pavilion is a minimal interpretation of a vernacular greenhouse with a ceiling that encloses 30,000 balls rolling freely in the wind. The shaded areas beneath the pavilion change with the weather, reprogramming the plaza.

The idea of "climate" has become abstract and politicized, but weather is immediate. "Weather, for us, is a medium to allow for experiences," says Rotem. "We see a world that is overabundant with information, but truth is unclear. Connecting to the environment is a form of truth." Hoang agrees, adding, "I think it's important that architecture play the role of connector rather than separator. That may mean drawing the public realm into the private realm, and rethinking what both those spaces can be." It may also mean creating indoor weather. Intake is a proposal to adapt an abandoned shipbuilding

factory for light-manufacturing and commercial use. The 50,000-square-foot structure will be subdivided and conditioned by invisible walls of high-velocity air that create and maintain distinctive climactic zones tuned to each place and program.

MODU's fascination with abandoned buildings—what they call the "Incomplete City"—solidified during their recent Rome Prize fellowship, when they visited hundreds of unfinished structures. They're building on that experience with the interdisciplinary pro bono initiative Second Life. This project aims to help revitalize communities through temporary, self-sustaining interventions—"mini-buildings"—in vacant structures. Currently, MODU is working with residents of Newburgh, New York, to help preserve, protect, and program the city's 300 vacant buildings until the town has the resources to find a more permanent solution.

Hoang and Rotem also blur the boundaries of their practice, working in multiple modes simultaneously. Their conceptual work, built work, research, teaching, and urban initiatives inform one another and allow the firm to continually develop, test, and refine their ideas. Through discourse and design at scales both large and small, MODU's indoor cities and outdoor rooms ultimately ask one question: How can we live better?



COURTESY MODU



AVIAD BAR NESS

SCHAUM/SHIEH

This New York and Houston-based studio experiments with architectural tools to produce surprising spaces at every scale. *By Sukjong Hong*

For SCHAUM/SHIEH, the city is not a mere backdrop for designing buildings. Instead, it is a source of productive potential and a platform for theoretical and built experimentation that has informed the firm's relationship to design from its founding in 2010.

The studio's founding partners, Rosalyne Shieh and Troy Schaum, first explored this interest in speculative projects for Detroit and the Taiwanese port city of Kaohsiung. Their early urban proposals for Detroit led to an installation at the 2012 Venice Architecture Biennale of a room that was also a staircase and public seating, one of many prototype structures they envisioned could infill the spaces between vacant homes in the city. This design, part of a larger project called "Sponge Urbanism," challenged the divide between domestic and public space and confronted the broader narrative about vacancy in Detroit.

This intersection of urbanism, form, and identity is something that the studio has carried into its commissioned work, especially for cultural institutions and spaces with hybrid programs. These include the Judd Foundation's buildings in Marfa, Texas; White Oak Music Hall in Houston; and most recently, the Transart Foundation, also in Houston.

While its Judd Foundation work is an exercise in restraint, aimed at preserving and restoring the artist Donald Judd's vision for more than a dozen buildings in Marfa, projects like White Oak show how the designers play with form, massing, and landscape to create a distinctive destination for Houston's music lovers and a new open space for the city as a whole. The main two-story concert hall, which contains multiple stages for different types of music and audience sizes, is part of a larger 7-acre complex which includes a lawn for outdoor performances and an open-air pavilion and bar, converted from an existing shed on the site.

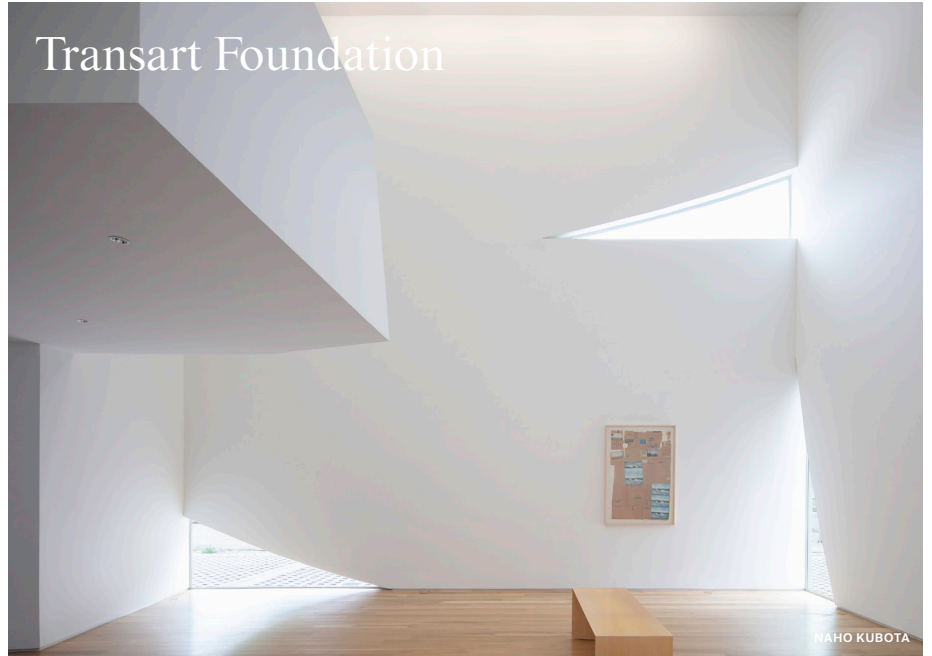
Across the studio's diverse range of projects, abstract representation and diagrammatic processes are essential tools to generate concepts and collaborate with partners and clients. But, as Schaum explained, "We always like to come back to where that kind of set-making and pattern-making starts to break down and question its own set of possibilities, where the sets open up new possibilities for inhabitation rather than where they complete themselves in perfect studies of pattern or complex assemblages."

This is evident in SCHAUM/SHIEH's Transart Foundation (a 2018 AN Best of Design Awards Building of the Year). The project includes two structures comprising a private residence, art studio, and exhibition space, and is located across from the Menil Collection within a largely residential neighborhood.

Transart's white stucco facades, with their thick massing, look substantial, but are peeled away at the edges and corners, giving the overall appearance of lightness, like curled paper. The sculptural massing of the main building, juxtaposed against its relatively compact size—closer to a large house than a museum—also makes the foundation appear more monumental than it is, demonstrating the way SCHAUM/SHIEH works with scale to blur the lines between private and public space. This exercise in form and material produces unexpected moments and transitions that serve the multi-functional art space well.

But ultimately, the practice is most interested in its ongoing dialogue with the broader world. As Shieh explained, "I want the buildings that we make to belong to the world, and not to architecture. We don't necessarily put them out there in a way that we hope that they tell architecture what they are, but that they somehow produce some kind of surprise."

Transart Foundation



NAHO KUBOTA

Shenandoah House



SCHAUM/SHIEH

White Oak Music Hall



PETER MOLICK

Colloqate

Colloqate instrumentalizes design as a tool for social justice. *By Antonio Pacheco*

Colloqate Design, a multidisciplinary, New Orleans-based “nonprofit design justice practice” founded in 2017 by Bryan Lee Jr.—Sue Mobley came on in 2018—with the goal of “building power through the design of public, civic, and cultural spaces,” is setting a different path relative to other design offices.

For one, Colloqate spends quite a bit of time doing the arduous work of educating and training communities, institutions, and municipal agencies through initiatives like its Design as Protest and Design Justice Summit events to “build practices around design justice,” according to Lee. Buildings are not an afterthought for the practice, but Lee and Mobley’s view of how designers and design justice intersect is firmly rooted in grappling with everything that exists beyond and around their particular projects.

According to the duo, this “syntax of built environment”—including but not limited to the social mores we keep, the design of streetscapes and infrastructure, and the impact of political policies—has as direct an impact on how people use spaces as any one design element might. So a key goal of their practice involves making others aware of how these overlapping and sometimes competing languages operate so that when they do building-oriented design work in a given space, they can “intentionally organize, advocate, and design spaces of racial, social, and cultural equity.”

The practice started off as an outgrowth of the Claiborne Corridor Cultural Innovation Dis-

trict, a visionary urban plan that would transform a 19-block area below an elevated highway in New Orleans into a “culture-based economic driver” for the Claiborne Corridor neighborhood. The plan, envisioned for an area that was once a social and economic core of New Orleans’s black community but was cleared to make room for the highway, aims to articulate a socially guided vision for bringing a public market, classrooms, exhibition spaces, and health, environmental, and social services to the area.

Another project, Paper Monuments, brought a flurry of posters to sites across the city to “create new narratives and symbols of [New Orleans]...and to honor the erased histories of the people, events, movements, and places that have made up the past three hundred years” of history. The citizen-led project sought to use public art as a way to further Colloqate’s core aim of “dismantling the privilege and power structures that use the design professions to maintain systems of injustice.”

Lee explained that as a nonprofit entity (Colloqate’s growing board includes urban planners, architects, and other design professionals), Colloqate must necessarily take an unorthodox and provocative approach. As the practice expands, completes projects, and envisions its future, however, Lee hopes to apply Colloqate’s ethos more directly to bricks and mortar. “We want to be the most radical design firm out there,” Lee said, “and we need to build buildings to do that.”



BRYAN C. LEE, JR. / © COLLOQATE DESIGN

BlightsOut community forum



BRYAN C. LEE, JR. / © COLLOQATE DESIGN



CHRIS DAEMMRICH

Paper Monuments



COURTESY PAPER MACHINE

Paper Machine

FreelandBuck

The distributed practice draws on representation for spatial effects. *By Jimmy Stamp*

FreelandBuck builds drawings. Not in the traditional sense of constructing what's represented by a drawing set, but in the sense that its architecture directly evokes carefully constructed perspectives and painstakingly hand-drawn renderings. "We think about drawing at the scale of architectural space," says partner Brennan Buck, "as an end product, not a means to build."

Buck, based in New York City, and David Freeland, who is based in Los Angeles, met in grad school at UCLA and started working together in 2009. Of their bicoastal practice, Freeland says, "There are more opportunities than challenges. It exposes us to different groups of potential clients, but also to different environments. I think the practice is richer for that."

Working at a variety of scales also makes the practice richer, giving the firm the chance to explore its ideas in different ways. Parallax Gap, a colorful canopy of layered screens installed in the Smithsonian American Art Museum's Renwick Gallery in Washington, D.C., feels like a drawing come to life. The intricate trompe-l'oeil representations of historic American ceilings are like perspective drawings—each constructed with a unique vanishing point—that reveal themselves as visitors walk through the space.

FreelandBuck borrowed rendering techniques to enliven the riff on office cubicles the firm designed for a film production company in L.A. To accommodate the company's variable spatial

needs and match its lighthearted style, the architects defined flexible work areas with a series of "tumbling" cubes whose milled surfaces, evoking a poché or hatch, suggest another set of cubes overlaid onto the first. Furniture that looks torn from a Roy Lichtenstein canvas adds to the effect of stepping into a drawing.

Although there are nods to linework in the exterior finishes used on two of the firm's residential projects, Stack House and Second House, these connections to representation are more complex. In both buildings, distinctive exterior volumes articulate dedicated programs, and in both buildings, this distinction is broken down by unexpected interior elements. Stack House's curved walls blend its spaces together, while Second House achieves a sense of continuity through materials, transparency, and interior courtyards. The perspectival shifts of Parallax Gap appear here in more subtle ways, concealing and revealing spaces, views, and experiences; it's not about adding lines, it's about erasing them.

FreelandBuck may draw on the techniques of representation but, unlike a conventional drawing, its work can't be understood through a single image. Like the best architecture, the spaces, places, and objects the firm creates are challenging and engaging and must be experienced to be fully appreciated.



Davies Toews

This Manhattan-based firm uses a DIY mind-set to punch above its weight.

By Jonathan Hilburg

The storefront office of Davies Toews Architecture is tucked behind a corner of 13th Street in Manhattan's East Village, and like so many of the firm's projects is defined by constraints. Common elements like outdoor tile and plywood create a homey atmosphere, and models and materials are tightly arranged throughout the space, inviting passersby to peer in on the studio's creative process.

Partners Trattie Davies and Jonathan Toews are no strangers to working around tight spatial and financial limitations. Whether it's a linear park that rises between a descending set of switchback staircases in Hudson, New York; a perspective-defying, split-level park and art gallery in Memphis, Tennessee; or a three-story townhouse in Brooklyn, their projects are united by the common thread of extreme site-specificity.

"Our strategy has been: Do first, analyze second," said Davies. "It's really important for us to build work, to learn about how things get done—what works and what doesn't work, so we could get good at it. Most of what we do is built. We do very few competitions."

Fittingly, materiality plays a large role in these completed projects. For the 72,000-square-foot University of Chicago Charter School: Woodlawn Campus, a school for grades 6 through 12 with a 100 percent college acceptance rate, the studio had to balance a modest budget with lofty design ambitions. Using only locally produced Chicago brick, the studio designed a variegated, kinetic facade by patterning the building with darker, extruded brick. The school's flared parapets and step-gap massing reference missing buildings in the surrounding neighborhood, breaks in a uniform street wall.

"We realized that, project after project, the design came from the constraint," said Toews.

"Lately we've been thinking a lot about how to design with Sheetrock." Even Sheetrock, a ubiquitous and uniform material, can provide inspiration; Davies compared the alternating bands of color in stacked, wrapped Sheetrock to a tapestry.

That translation of in-process materials is carrying over to the firm's work at the Gowanus Powerhouse Workshop. Inside the Herzog & de Meuron-led exterior renovation of the 115-year-old former power station, Davies Toews will be designing the interiors and supplying furniture for the assortment of shops and many of the public areas in the new cultural center. Metal shops, wood shops, textile, ceramic, and print-making spaces will join a fabrication lab in the facility, as will a number of exhibition and teaching spaces.

Arranged on a plinth near the entrance of the Davies Toews office is what could be mistaken for an industrial material palette. Half of a spray-painted cinder block seat joins a model of a bench supported by irregularly shaped decorative bricks, and dollops of thrown clay sit in irregular, overlapping forms suggesting tables. Rather than bring expensive, overrefined furniture into the Powerhouse Workshop, Davies says that the idea was to use materials that would be readily available and could be refined on-site, and to create flexible furniture that can serve a variety of purposes. The studio's iterative design process for the furniture at Powerhouse Workshop sits in plain view for all to see.

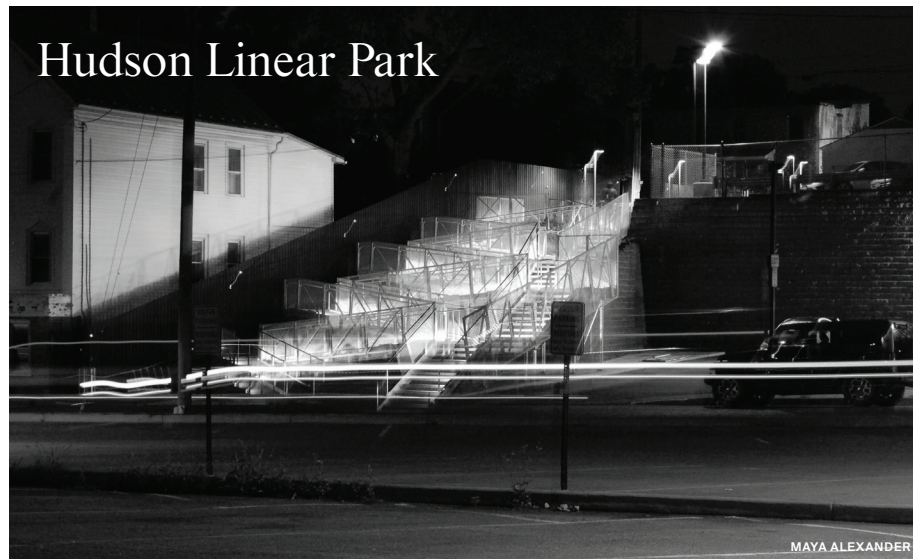
"Every project gets modeled," said Toews. "There's the idea of the model sitting there; you can't avoid it. We just try to keep making stuff around the project until it gets better and better."

Cai Guo-Qiang Home and Studio



COURTESY DAVIES TOEWS ARCHITECTURE

Hudson Linear Park



MAYA ALEXANDER

University of Chicago Charter School - Woodlawn

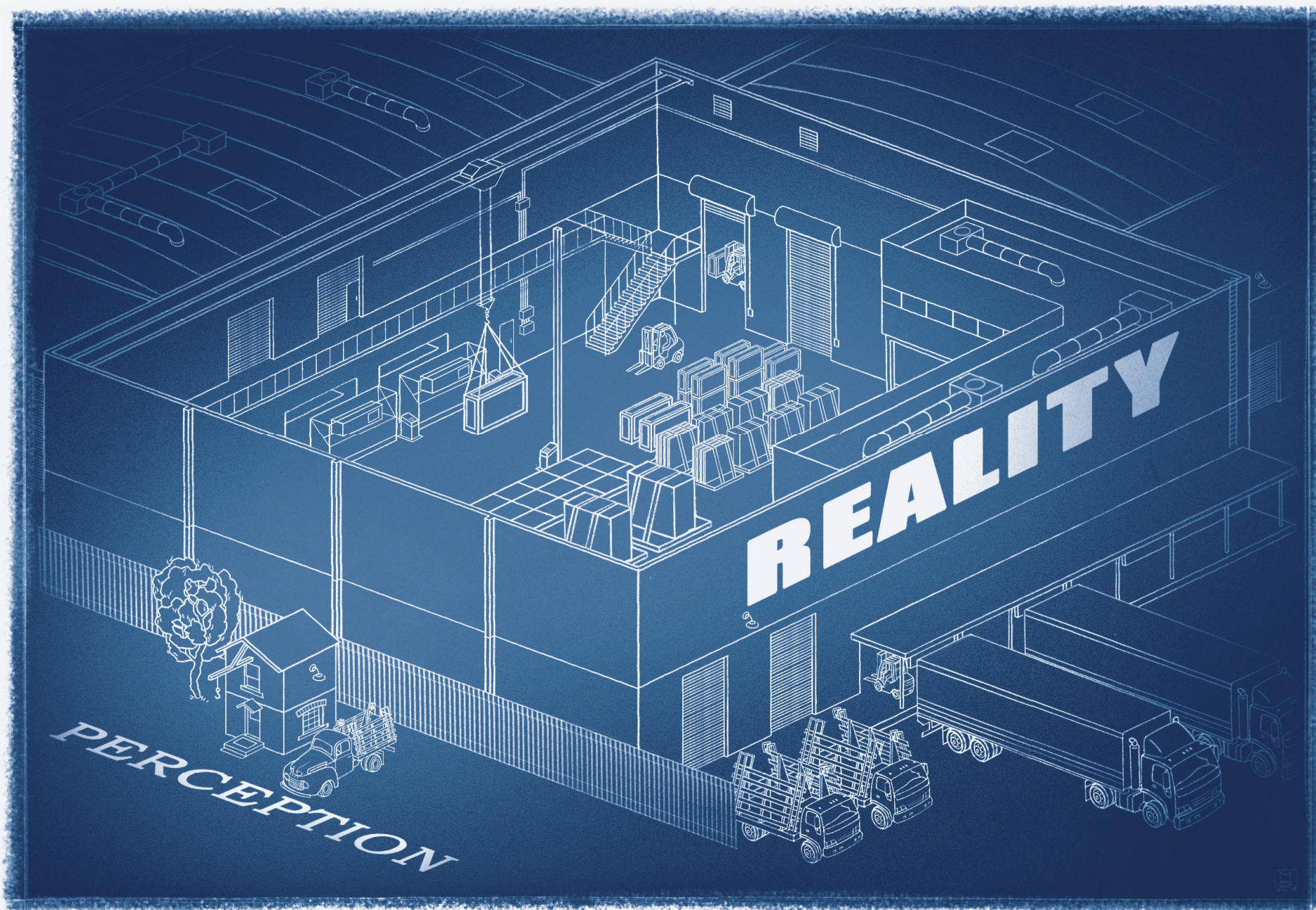


CHRISTOPHER PAYNE/ESTO

Hudson Linear Park



MAYA ALEXANDER



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Kitchen & Bath

How are coworking spaces and luxury residential towers redefining the kitchen? We have that scoop, as well as reports on the latest surfaces, kitchen systems, bath products, and game-changing technology. *By Gabrielle Golenda*





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Neolith's Zaha Stone



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Co-kitchening

Coworking spaces are redefining not only the office, but also other gathering spaces. The designs of these coworking kitchens and cafes feature warm material palettes, long-lasting flooring and surfacing, and high-performance appliances.

Craftwork Coffee Co Foundry

Fort Worth, TX
Architect: 97w
Countertops: Quartz Master
Kitchen Sink: Elkay
Kitchen Faucet: Delta
Refrigerators: True

Fort Worth-based collaborative design studio 97w recently completed Craftwork Coffee Co's third location in The Foundry District (just across the street from their office). Outfitted with a street-facing coffee shop, the coworking office aims to foster a sense of community with quiet spaces to work, broken up by public areas to convene, which include a cafe and kitchenette.

The cafe serves as a focal point where guests can become familiar with the community at The Foundry—those who are there to work, as well as those who stop in for caffeine. Against a backdrop of breeze blocks by Clay Imports, the cafe features a palette of rich woods with Quartz Master countertops. “You take a break, see people, get energized, and potentially meet someone you can have a meeting with or maybe you hear about something interesting that could be a potential collaboration,” said Jason Eggerburger, a partner at 97w. Eggerburger describes the kitchen as secondary to the community space (in this case, the small 9-foot-long kitchenette is tucked away between the open desk spaces and various private suites).

Craftwork's fourth location—slated to be completed this year—will be the first of 15 more across Houston, Dallas, and Austin due to set up shop inside multifamily buildings. The idea behind this business model is to develop underutilized amenities spaces in small-scale residential complexes into coworking coffee shops that take full advantage of public areas.



Assemblage John Street

New York
Interior Architect: Meyer Davis Studio

Elixir Bar
Refrigerator: Perlick
Sinks: Krowne
Dishwasher: Advansys

Cafe
Refrigerator: Beverage Air
Dishwasher: CMA
Sinks: Krowne
Water Purifier: Vero

Bathrooms
Toilets: Geberit
Sinks: Kohler
High-Speed Hand Dryer: Toto

Coworking Kitchenettes
Sink: Signature Hardware
Dishwasher and Refrigerator: Blomberg
Microwave Oven: Monogram

Guestroom Kitchens
Stove: Gaggenau
Microwave: Sharp
Dishwasher: Fisher & Paykel
Refrigerator: Accucold
Flooring: Porcelanosa

Guest Bathrooms
Toilet: Icera
Sink and shower: Kohler
Tiles: Stone Source

The Assemblage John Street in Manhattan's financial district is the second location of the health-centric hotel-coworking hybrid. With mental and physical well-being at the forefront of The Assemblage's mission, Meyer Davis designed flexible coworking spaces—including dedicated desks with access to communal spaces, as well as private and team offices—amid communal areas with daily wellness programming, including a dining area that offers Ayurvedic breakfast and lunch, and meditation rooms that host the occasional cacao ceremony.

In this location, the Nymphaea Elixir Bar stands out as the main attraction. Offering 12 plant-based mixtures, each tincture is custom-made to support circadian rhythms, and, according to the elixir bar's website, "promote openness and connection." Designed to support members with similar health-conscious mentalities to come together, Nymphaea is outfitted with a white Calacatta marble-topped bar, lined with velvet upholstered lounge chairs. Meanwhile, on the uppermost floors, the apartments for short- and long-term stays feature dedicated in-room workspaces and a kitchenette with Viatera quartz countertops, brass finishes, fluted glass, and a sink and faucet by Signature Hardware.

In entirety, both The Assemblage's lodging and working spaces feel like a coherent amalgam of design tropes. There's an emphasis on biophilic design with plants infused throughout, including reindeer moss, various succulents, and other indoor flora handpicked and cared for by Plant the Future, a Miami-based and nature-inspired design firm. The overall aesthetic is far from the typical office, featuring a sea of gray stained oak flooring, blackened steel textures, and brass hardware among a variety of small, midsize, and large work surfaces. Hernandez concludes, "Everyone has ownership, so all of it had to feel cohesive."



ERIC LAIGNEL



I’m Customized

With design features like cutouts and raised countertops, the latest kitchen islands and cabinetry feature a wealth of options. From color to material palette to function, these counters and cupboards can adapt to any project vision.



Etna
Lineadecor

Modular by design, this kitchen system pairs different components—like an island with a countertop table—to create efficient layouts in small kitchens. Made-to-order, Etna is available in a number of sleek and warm wooden finishes.

lineadecor.us



Color Box
Henrybuilt

Proudly display your kitchen essentials with Henry Built’s Color Box. Perfect for stacking pots and pans, it is offered as a square and a vertical shelving system, as well as a bar layout for those who like to entertain. You can customize the backing with any color from the felt and cloth library.

henrybuilt.com



Bilotta Collection Cabinetry
Bilotta Kitchen & Home

Bilotta’s new collection is a play on textures, featuring grainy oak, shiny gold hardware, and frosted glass. Made to order, all the Collection Cabinetry is customizable with accessories for organizing and storage.

bilotta.com



Vision
Snaidero

Soft curves form ergonomic base units for islands and peninsulas in this sleek kitchen. The LED-lit structural framework outlines fluid surfaces integrated throughout, highlighting the integrated spaces for storage and display. Now available for the first time in the U.S. at KBIS, Vision dazzled at EuroCucina last year.

snaidero-usa.com



+VENOVO
Poggenpohl

Floating on shimmering stainless steel legs, this kitchen island is outfitted with a sculptural raised sink area. Meanwhile, the cabinets house customizable storage for cutlery and other cooking appliances.

poggenpohl.com

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Turn On, Tune In

Design kitchens that respond in real time with new digital appliances and plumbing. With the help of smart home systems like Alexa and Google Home, the following appliances and electronics make the kitchen more responsive and powerful than ever.



Integrated Column Freezer and Refrigerator
Fisher & Paykel

Fisher & Paykel's new family-size column freezer and refrigerator can be installed separately or together and variably configured. The ideal temperature is set for three food zones: Freeze, -7° to 7°F; Soft Freeze, 14° to 18°F; and Deep Freeze, -13°F.

fisherpaykel.com



Smart Oven+
Kitchenaid

Smart Oven+ is designed with interchangeable cooking attachments that plug directly into a power hub inside. Including a grill, steamer, baking stone, and base heating pan, the LED illuminated touch screen directs the user to which attachment to employ based on cooking instructions in the platform.

kitchenaid.com



TKO Touch Faucet
Lenova Sinks

Grubby hands? Tap and wash with a faucet that turns on with a touch of your wrist or forearm. Don't worry about burning yourself, LED lights will indicate the temperature. And, when you're through, integrated sensors will automatically shut off the flow.

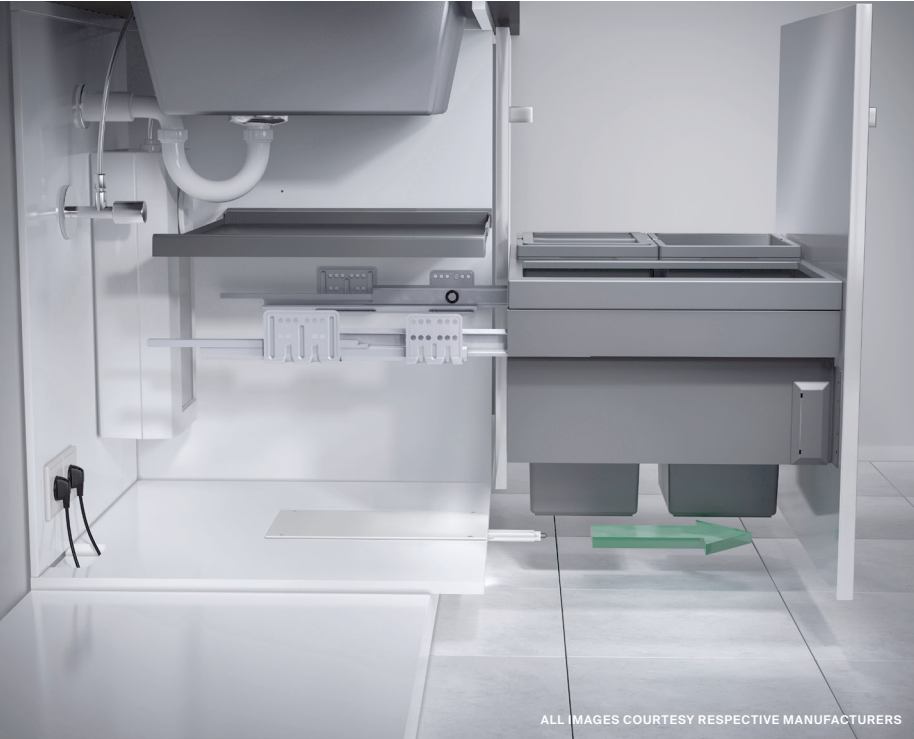
lenovasinks.com



48-Inch Pro-Harmony Standard Depth Gas Range
Thermador

Pro-Harmony comes equipped with Thermador's new app that pairs the oven with other appliances like the ventilation hood, as well as digital recipes that sync with automatic settings. For easy clean up, the stovetop features a base where a hand and sponge can easily fit under each burner.

thermador.com



Hailo Libero 2.0 Auto Opener
Häfele

Look Ma, no hands! Open the cabinet door by stepping on a sensor or tapping a button. Special features such as under-mount lighting are customizable with the Auto Opener app.

hafele.com

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Luxury on the Rise

Thoughtfully designed bathrooms and kitchens in new high-rises feature neutral color palettes accented by rich materials like brass and marble. Flourishes such as floating vanities, heated floors, and deep-soaking tubs add a luxurious touch.

Two Fifty West 81st

New York
Architect and interior architect: Robert A.M. Stern Architects

Bathroom fixtures, plumbing, hardware: Waterworks
Kitchen cabinets: Smallbone of Devizes
Kitchen appliances: Gaggenau



111 Murray

New York
Architect: Kohn Pedersen Fox Associates
Interior Design: David Mann

Refrigerator and freezer: Sub-Zero
Warming drawer: Wolf
Ovens and dishwasher: Miele
Custom cabinetry: Molteni & C
Sink: Julien
Pullout hood: Faber



277 Fifth Avenue

New York
Architect: Rafael Viñoly Architects
Interior Architect: Jeffrey Beers International

Kitchen sinks: Blanco
Kitchen appliances: Miele
Bathroom faucets: Dornbracht
Bathroom sinks: Kohler
Bathroom bathtub: Kaldewei



130 William

New York
Architecture and interiors: Adjaye Associates

Custom kitchen millwork and cabinetry, and bathroom vanity: Pedini
Appliances: Gaggenau
Custom Italian marble: quarried from the Apuan Alps
Hardware: Adjaye custom-designed bronze



Fifteen Hudson Yards

New York
Architect: Diller Scofidio + Renfro in collaboration with Rockwell Group

Kitchen and bathroom fixtures and plumbing: Dornbracht
Kitchen Appliances: Miele
Kitchen custom-painted glass backsplash: Bendheim



Bath to Basics

Designers like Marcel Wanders and Clodagh think about how to improve ergonomics in the bathroom, and instead of adding more settings, strip their designs down to their essential form.



Double Taw Vanity
Drummonds

You may have to share a bathroom, but you don't have to share a sink with this double vanity. Featuring a marble top, the Taw Vanity is available in brushed brass and nickel. For those who aren't lacking storage, the bottom shelf is optional.

drummonds-uk.com



Adeline
MTI Baths

Looking for a deep bath? Adeline features a monolithic body that holds 71 gallons of water (and two people comfortably). The concave-shaped form provides lumbar support and prevents water from splashing over the edge.

mtibaths.com



SLAB-Edge custom basins
Neo-Metro

Neo-Metro's deep trough basins for 61 Ninth Avenue were cast as seamless monoliths made of resin and stone. Representative of the large-scale customization possible, SLAB-Edge spans nearly the entire width of the bathroom, cantilevered to conceal the plumbing beneath.

neo-metro.com



Lura Collection
Clodagh for Speakman

Speakman collaborated with New York City-based multidisciplinary design studio Clodagh on this collection of ergonomic fittings. With children, the elderly, and those with handicaps in mind, the design features easy-to-use pulls, knobs, and mechanics. Featuring sinuous curves, the collection includes shower valves, faucets, and levers available in a satin gold or silver finish.

speakman.com



The New Classic
Marcel Wanders for Laufen

Bearing in mind all the new high-tech kitchen appliances, Dutch-designer Marcel Wanders designed a collection of sinks that look like they're from a time before the internet. With very clean, polished forms, the New Classic collection will complement digital potties, voice lighted mirrors, or any IOT-enabled devices.

laufen.com

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Critical Response

“Alexa, turn the shower on at 103 degrees.” The newest showers and toilets come equipped with responsive tech: voice activation, adjustable lighting, and other app-activated features that make the bathroom a truly personalized experience (and virtually hands-free).



Sense Guard
GROHE

A trusty safeguard in case disaster strikes, Sense Guard detects leaking water by tracking pressure and flow and cuts off water supply in pipes to prevent costly water damage. Pair it with the GROHE Ondus to keep track of how much water you use.

grohe.us



ThermaTouch
ThermaSol

ThermaTouch is a 7-inch LED touchscreen shower control system equipped with Bluetooth, Ethernet, Capacitive Touch Technology (CTT), and Infrared Temperature Sensing (ITS). When paired with ThermaSol's Serenity Light and Sound Rain Head, users can control the steam and lights, and at the same time browse the internet or stream videos via connected apps.

thermasol.com



Rainmoon
Dornbracht

Lit by a hidden light strip, illuminated drops of water create a shower experience like no other. Featuring two spray pressures, the low flow increases the size of the water stream, while the a higher flow creates a more concentrated, powerful stream.

dornbracht.com



Aqua Moment Drop-In Airbath with Waterfall
DXV

What's better than a jacuzzi? A bathtub with air-jets and a headrest that releases a curtain of warm water over the shoulders. Meanwhile, an air-blower keeps the water warm for the remainder of the "Aqua Moment experience."

dxv.com

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Surfaces

The biggest tile

This year, every major producer is offering large format tiles thanks to new manufacturing technologies. These new expansive sizes make it possible to create virtually seamless surfaces across the bathroom to the kitchen.



**Slate Quartz
Corian**

Corian's new family of quartz surfaces is now offered in ten new colorways, including a vivid gray called Slate. The engineered countertops are made with real quartz crystals, making them naturally "rock hard" and scratch-resistant.

corianquartz.com



**Sofia Cuprum
Neolith**

Inspired by Jean Nouvel's extension to the Museo Reina Sofia in Madrid, Sofia Cuprum's metallic luster mimics the underside of the metallic roof in the new extension. The metal-inspired shade in Neolith's STEEL collection is made in a variety of thicknesses.

neolith.com



**XTONE
Porcelanosa**

Though lightweight, XTONE is an incredibly strong large format slab designed for countertops and tables. Made from sintered porcelain that is compacted and then fired, it is incredibly resistant to scratches and impacts, ice and frost, chemicals and stains.

porcelanosa-usa.com



**Silestone Loft
Cosentino**

The Silestone Loft features natural and human-made imperfections found in concrete and stone. With an intentionally unfinished gritty touch engineered from 90 percent quartz, Cosentino's new collection is as aesthetically pleasing as it is functional.

cosentino.com

Marble remains timeless

At Cersaie, the world's premiere tile show, classic materials, namely marble, remained popular. Naturally sourced or engineered, marble's texture and soft touch are only two reasons why designers continue to choose it for kitchens and bathrooms, year after year.



**Verdi Alpi
Artistic Tile**

These deep green marble tiles are quarried in the Valle d'Aosta in northwestern Italy. Verdi Alpi is shipped as 8' x 4' tiles, making it perfect for almost seamless floor and wall applications.

artistictile.com



**Pietra Viva Marble
Eggersmann**

Part of Eggerman's Unique collection, Pietra Viva Marble is a new calacatta white finish with sumptuous black veining. Available as a worktop panel, front and side panels, and plinth panel, it can be used as a surface virtually anywhere in the kitchen.

eggersmann.com

Cook Smarter, Not Harder

By Drew Zeiba

A church is overhauled into a home with high-tech appliances.

Design: Doherty Design Studio
Appliances: Fisher & Paykel
Hardware: MadeMeasure

Australian firm Doherty Design Studio was tasked with outfitting the interior of a four-level former church in the Melbourne suburbs, originally built in 1910, with a modern-living update. The brick exterior of the church is heritage-protected, which means any repurposing of the structure had to meld the more-than-century-old aesthetics and design with a contemporary look, all within its relatively compact footprint. Doherty Design Studio opted for a restrained palette of whites, grays, wood, and brass to build out the home, which retains original stained glass and maximizes the use of natural light.

The kitchen was designed along the layout of a previous kitchen from an earlier residential renovation of the protected church 20 years ago. The new kitchen has marble countertops, custom joinery, and a large mirror mounted above the tile backsplash. Like the rest of the home, it features gentle curves and an array of whites in various materials to lighten up the cooking and entertaining space. Brass bands running the length of the cabinetry add depth and dynamism to the room. To outfit the kitchen, Doherty Design Studio went with appliances—including double DishDrawer dishwashers, wine storage, a self-cleaning oven, and more—from New Zealand company Fisher & Paykel, with which the firm has worked before, giving the clients, who love entertaining, a kitchen with the resources to easily cook and prepare meals. All the appliances are integrated as much as possible with the overall design program, giving more breathing room and unity to the relatively small space, while a few pieces, like the black Fisher & Paykel dual gas and induction stove top, stand out along with dark sink basins and the clients' own decorative objects in shades of gray.



Resources

Kitchen

| | | | | |
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| Blomberg blombergappliances.com | Kaldewei kaldewei.us | Snaidero snaidero-usa.com | Lineadecor lineadecor.us | Cosentino cosentino.com |
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West

Hugh Kaptur: Organic Desert Architecture

Palm Springs Art Museum
Architecture and Design Center
300 South Palm Canyon Drive
Palm Springs, CA

Through June 17



Desert modernism is celebrated in all its glory at the Hugh Kaptur exhibition in Palm Springs, California. Less well-known than many of his predecessors outside the Coachella Valley, Kaptur has designed over 200 buildings in the region and is considered one of the most creative architects of his time. His buildings often feature thick walls, inset windows, and large overhangs—all features meant to moderate the intensity of desert climes. The exhibition,

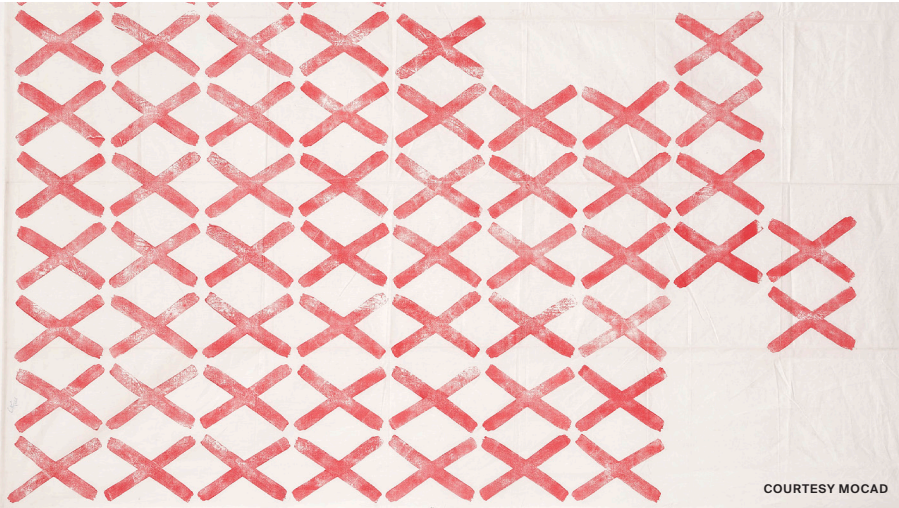
curated by director Brooke Hodge and activist Frank D. Lopez, consists of architectural drawings, models, and slides created by Kaptur himself, alongside photographs that he donated in 2015. The museum is located in the heart of Palm Springs, a mecca for fans of midcentury desert modernism; those who visit the Kaptur exhibition will walk out greater experts on this important practitioner.

Midwest

Unfurled: Supports/Surfaces 1966–1976

Museum of Contemporary Art Detroit
4454 Woodward Avenue
Detroit

Through April 21



For the first time in the Midwest, the Museum of Contemporary Art Detroit (MOCAD) presents works of the fourteen artists affiliated with the Supports/Surfaces movement, an artistic reaction to the social upheaval that took place in France during the 1960s and mirrored the civil rights and anti-war movements in the United States. Producing artwork out of an interest in materiality, lyrical use of color, and expanded ideas of what a painting can be, the Supports/Surfaces artists rejected traditional art media for ordinary domestic objects and

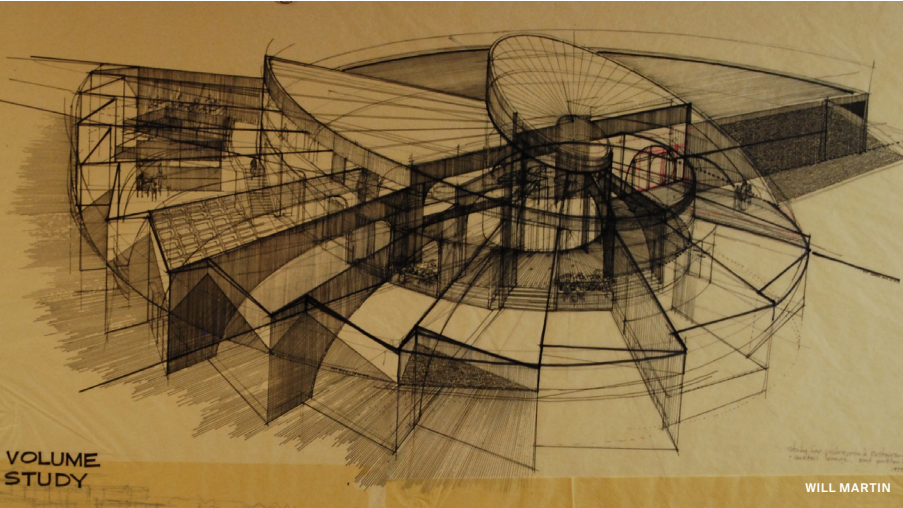
materials—like bed sheets and rope—and displayed them in impromptu, temporary shows in small French towns, often breaking out of the conventional gallery environment by displaying works on the outside of buildings, or in a natural environment, like the bank of a river. *Unfurled: Supports/Surfaces 1966–1976* intends to interpret the Supports/Surfaces artists inside MOCAD by hanging art from the rafters of the museum, employing an “all-over” approach to installation.

West

The Artistic and Eclectic Will Martin: Selected Works, 1957–1985

Architectural Heritage Center
710 SE Grand Avenue
Portland, OR

Through July 27 (Wednesdays through Saturdays)



Chances are that few outside Portland have ever heard of designer and architect Will Martin; however, inside the city, it is an entirely different story. Those who have been to Oregon may know Martin through his works, such as Pioneer Courthouse Square—Portland’s central square and “living room”—and the Schneider Museum of Art on the Southern Oregon University campus in Ashland. Between 1957 and his death in 1985, Martin’s unique sensibility also manifested itself in the

form of rough sketches, blueprints, paintings, sculptures, and models, demonstrating his wide-ranging interests in botany, the environment, and local history, among other topics, and his melding of art with architecture. This show at Portland’s Architectural Heritage Center includes Martin’s built and unbuilt works, some of which have never before been exhibited or haven’t been publicly displayed for over 25 years.

East

The Road Ahead: Reimagining Mobility

Cooper Hewitt, Smithsonian Design Museum
2 East 91st Street
New York, NY

Through March 31



Featuring the works of firms and institutions such as Arup, Höweler + Yoon, Toyota, IDEO, and Waymo, the Cooper Hewitt’s *The Road Ahead* exhibition presents 40 takes on the future of transportation. The exhibition incorporates droids, bots, drones, autonomous vehicles, and solar technology harnessed to create smarter, more equitable, and sustainable urban transport options. Visitors are encouraged to experience installations like “Sounds of the Future City,” an immersive 3-D experience that offers three possible ex-

amples of how tomorrow’s urban places will sound, and “Ultrahaptics Sensory Interface,” which creates invisible textures using ultrasonic waves one can feel on one’s skin. The show will also incorporate some historic examples of speculative thinking about mobility and transport. The exhibit was organized by Cara McCarty, the museum’s curatorial director; Cynthia E. Smith, curator of socially responsible design; and Julie Pastor, curatorial assistant.

It's a Gas: The Allure of the Gas Station

Edited by Sascha Friesike, with preface by Jay Leno
Gestalten | \$60.00

Automobiles fascinate architects. Le Corbusier designed the Voiture Minimum; Buckminster Fuller, the Dymaxion; Renzo Piano, the Flying Carpet; and Norman Foster, the Routemaster. And while Charles and Ray Eames were posing with a Velocette motorcycle, Michael Czysty—founder of Architropolis, his firm—was designing the record-breaking MotoCzysz E1pc electric motorcycle. Given recent developments in electric vehicle (EV) innovations, designers may soon create new infrastructure for these silent, zero-emission vehicles. Two books from international publishing house Gestalten reflect on this crossroads with one foot on the accelerator and one hand on the wheel.

Jay Leno—late-night comedian and automobile aficionado—introduces *It's a Gas: The Allure of the Gas Station*, edited by Sascha Friesike. Leno recalls his childhood fascination with “grease monkeys,” tending vehicles, hot rods, and watching new models come and go. Leno also remarks on gas station architecture, including Richard Neutra’s now-demolished stations. From the introduction onward, Friesike’s volume takes us on a joyride around the world of gas stations.

Gas stations never became a celebrated typology, despite celebrated architects like Albert Frey and Norman Foster designing them. *It's a Gas* begins to address this curiosity. Friesike presents an aesthetic history of the gas station from its 1888 origins in a Wieshold, Germany, pharmacy to the contemporary designs of Philippe Samyn and Partners. Along the way, Friesike also casts his gaze on Arne Jacobsen’s 1936 rectilinear facility with a contrasting sinuous canopy—a beautiful prototype sadly never replicated—and Atelier SAD’s mushroom column canopy.

Canopies are typological features that shield from sleet, sun, and rain, and can encompass concrete shells, decked trusses, or even a B-17 bomber. Some stations forgo the billboard and inhabit teapots, tee-pees and cowboy hats. Novelty attracts customers (there even exist floating gas stations to service motorboats), but unfortunately, in the U.S., mega-pump filling stations like Buc-ees seem to pass for novel. Canopies can differ greatly. Postcards from Eugenio Grosso’s trek from Kurdistan to Sulaymaniyah, and Tim Hölscher’s photos of isolated gas pumps and stations highlight typological differences.

Every modern master has had stops and starts in petroland. In Quebec, in 2011 (the book misdates it as 2002), Les Architectes FABG completed the conversion of Mies van der Rohe’s Neue Nationalgalerie-esque gas station into a community center. In 2014, the Pierce-Arrow Museum in Buffalo, New York, unveiled a nonoperational version of Frank Lloyd Wright’s never-realized station. Equal parts nostalgia and premonition, “Ghost Town Gas Stations” closes *It's a Gas* by questioning the gas station’s future. If their fall “from grace came as the golden age of flying was ushered in,” will they hit rock bottom now that EVs have hit the scene?

The Current: New Wheels for the Post-Petrol Age

By Paul d’Orléans
Gestalten | \$60.00



Top: A floating Chevron station for boats in Vancouver, British Columbia.

Above: John Margolies photographed this branch of the 76 gas station chain in Tucson, Arizona, in 1979.

The Current: New Wheels for the Post-Petrol Age by Paul d’Orléans, leans into this question, examining the state of EVs. Motorcycle aficionado d’Orléans charges through a history of EVs before running the gamut of the latest electric transporters. Given the author’s focus on motorcycle history and customization (and from working with him personally at motorcycle film festivals), I was pleasantly surprised to see all manner of land vehicles included in his survey.

EVs are ideal for urban commuting. Electronic cars and motorcycles have a range of 150 miles at highway speeds. Electric bicycles and scooters are more accessible, but

fizzle out around 60-mile ranges at 35 mph. China has been leading this “e-volution” by changing licensing classifications on e-scooters and banning internal combustion engine (ICE) scooters in large cities, leading to myriad manufacturers and sales of e-scooters. Other countries have been slower to adopt EVs, despite riders’ praise of their “fun factor” and sustainability.

To combat customer hesitation, Taiwan-based electric scooter manufacturer Gogoro designed an e-scooter with batteries that can be easily exchanged. A subscription-based station network in Taipei supports its riders, who have already collectively logged 186 million miles. This

infrastructure is key to reassuring potential riders that their destinations can be reached. Similar networks are now being planned for Paris and Berlin.

Even mainstream manufacturers are flipping the switch. BMW developed an e-motorcycle weighing in at 600 pounds—a whale by industry standards, as many other models hover at around 250 pounds. Other large manufacturers developing EVs on the two- and four-wheel front include KTM, Yamaha, Porsche, Lamborghini, and Honda. Tackling a more sustainable approach, Ferrari has developed an E-Type concept retrofit for its 1950s through ’70s models. Taking sustainability further, the Dutch e-scooter Be.e boasts a flax and bio-resin body that foregoes the use of metal and carbon. Waarmaker—the designers of the scooter—said of their design process: “Form follows material and production.”

Many EVs don’t travel far from the traditional styling of their ICE cousins. D’Orléans explains: “Designers walk a fine line of trying to push the boundaries of styling and technology while catering to a surprisingly conservative streak among the supposed rebels on two wheels.” The same goes for cars—witness name-brand dealer offerings. Thankfully, d’Orléans’s arc surpasses workaday solutions to showcase more provocative and lesser-known innovators.

Joey Ruiter, who has designed furniture for Herman Miller, eschewed telltale signs in his Consumer car and Moto Undone motorcycle: Both are pared-down, minimal, rectilinear forms, in black and mirror finishes, respectively. These vehicles, while alluring, do not reference any stereotypical automotive styling. Bandit9 Motors’ bespoke L-Concept motorcycle is a tube with a turbine attached on two wheels. Meanwhile, Ujet’s Electric Scooter looks traditional but has an asymmetrical folding frame and battery-seat module that can be detached like a portable, wheeled tote for easy recharging. BMW’s Motorrad VISION NEXT 100 concept vehicle at once mimics the lines of the company’s first motorcycle and resembles a Tron Light Cycle. United Nude’s black crystalline Lo Res Car is as mysterious as Kubrick’s *2001: A Space Odyssey* monolith. EVs and their potential infrastructures are inherently sci-fi.

The books by Friesike and d’Orléans are both beautifully designed and illustrated, and one won’t find better volumes on EVs and gas stations without traveling to the realm of the overly technical. *The Current* lists specifications with its case studies, but highlights design, not mechanics. *It's a Gas* exposes a new typology without drilling into the industry. Together these books anticipate the future of automobile architecture, including approaches to designing adaptive reuses of filling stations and exploring new types of e-stations.

James Way is a Portland-based writer and promoter of built ecology at Biohabitats.

Possible Mediums

Edited by Kelly Bair, Kristy Balliet, Adam Fure, and Kyle Miller
Actar | \$34.95



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MEREDITH MILLER AND THOM MORAN

No matter how wide ranging the references might be, there is a consistent approach to architectural form as debris.

Left: *Possible Table* by First Office; Right: *Post Rock* by Meredith Miller and Thom Moran.

Is medium the new *thing*?

Possible Mediums, a volume edited by four xennial American architecture professors, documents the formal experimentation of the recent post-digital turn in architecture. The book glimpses a generation paradoxically invested in using obscure methods to make charismatic forms. Unlike other postmodern camps (pomo, deconstructivism, parametricism), this generation eschews stylistic cohesion, instead claiming diversity and eclecticism as its hallmark. Inspired by philosopher Michel Foucault's reading of a fictional Chinese encyclopedia in *The Order of Things* (the incoherence of which undermines Western epistemology itself), *Possible Mediums'* preface essay, "Notes from the Middle," relishes pluralism and how "the delightfully weird work of...colleagues challenged preconceived notions of order." However, by deliberately withholding a theoretical framework, the editors leave their uninitiated readers to wonder whether the volume marks a new architectural movement or is simply a yearbook filled with the signatures of well-wishing friends. Whether *Possible Mediums* is a yearbook or Oriental arcana, the book's format is infectious and invites casual, nonlinear, and occasional reading. In the same spirit of the volume's meandering musings, this review will proceed as a loose collection of entries.

#71

Arguing for strength in numbers, this volume is full of them. The editors treat their own numbers as a conceptual argument, noting, "We began as a group of four, but quickly grew to 16, then to 25, and now have over 40 project contributors..." They could go on: John McMorrough's six examples of architectural mediums explicitly numbered, 71 total projects, 16 jam-packed guest essays, 16 mediums [sic], 18 paper stocks, etc. The editors claim, "*Possible Mediums* is not a systematic theory, a manifesto, or banal survey—it is a projection of architecture and knowledge to come." And in the absence of knowledge per se, quantity becomes quality. A slow reading might go something like this: The book contains 71 projects, a number sufficiently large, indicating something historic underfoot. Moreover, 71 seems sufficiently precise, an irreducible prime number, the inelegance of which also suggests that there can neither be more nor less, neither 70 nor 72. In sum, 71 is an architectural movement, at once historical, irreducible, and singular.

Listicle

Beginning with the editors' reference to Foucault's Chinese encyclopedia, this book continues to make happy use of lists throughout. Along with lists of paper stocks, architectural media, and guest essays, there are lists of influential UCLA

faculty, supply stores, types of sandwiches, questions for readers to ask themselves, etc. The explicit use of lists by both the editors and contributors is reminiscent of the proliferation of useless content on the internet, necessitating the novel curation of listicles as a new literary genre. We now revel in the veneration of tiny, insignificant yet common phenomena. In the post-internet age, architecture defers to everyday non-architectural objects, high and low, from CAD Blocks to Google's 3-D Warehouse. These things are all worthy of appropriation in the process of making new forms.

Debris


Flipping through the book, there's a lot of debris. Some of it is more like piles, rubble, clutter, junk, or ruins, depending on which page you land on. The volume's insistence on including so many different types of debris makes one think that there is something important about this seemingly unimportant form. In fact, these architects are much more interested in architecture as things rather than forms. Most of their projects look like they are in disuse—things that are falling apart, recycled, decomposing, and on their backsides. Perhaps in reaction to the pageantry of elegant and hyper-engineered surfaces of the digital age, debris ushers in a new cycle of decomposition to architectural discourse. However, unlike the previous antagonism and violence of deconstructivism, debris is more

casual, informal, and nonchalant. According to the architects, debris has purpose: It disrupts part-to-whole relations, celebrates ambiguity, and elevates the ordinary.


Inconclusive

Like their digital predecessors, this group is invested in formal complex exuberance. Unlike their precursors, this crew is invested in the misappropriation of citations and readymades to such a degree that disciplinary norms and hierarchies are overturned. Such preoccupations, however, are never explicitly acknowledged, and adopt a thinglike quality. Once noted, this degree of thingness becomes an index of contemporaneity: The 2000s are malleable, diagrammatic, and morphological, while the mid-to-late 2010s are full of referential things in semi-disarray. To an outsider, this shift may feel solipsistic and inconsequential—but make no mistake, this generation is distrustful of formal mastery, and instead agnostically embraces the detritus of what's left of meaning. Nothing is taken for granted, and every *thing* is worked on as a medium of inquiry. For architecture, this novelty is not only formal, but also etymological in an intriguing, almost imperceptible, way.

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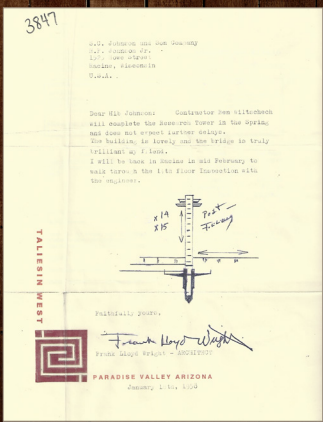


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DISCUSS ON DESIGN

THE SIMULATED METROPOLIS: ART AND IDENTITY WITHIN THE NETWORK

Issue 37.1
Feature Editor: Leah St. Lawrence
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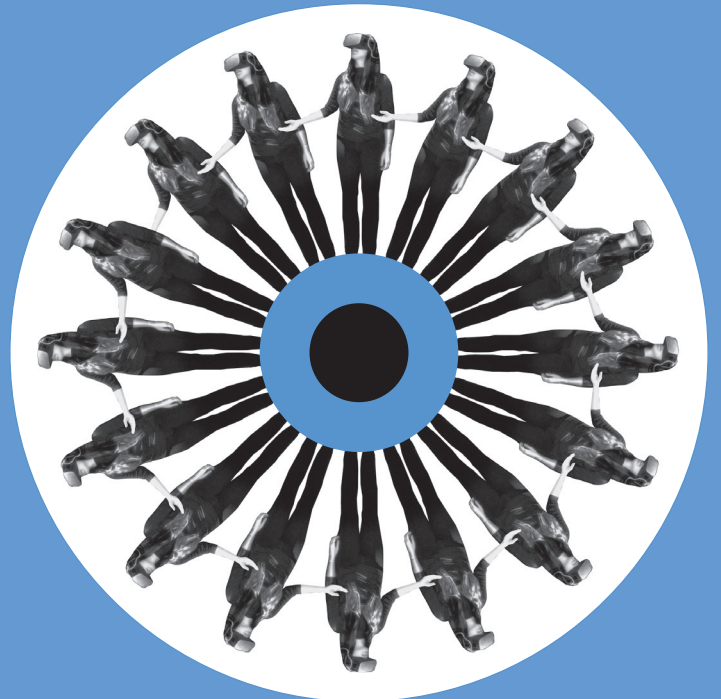


Illustration constructed from a documentation image of Sarah Meyohas's *Cloud of Petals*, 2018, Disjuncta Contemporary Art Center, Portland, OR. Photo by Joe Freeman, provided courtesy of Julia Greenway. Design and illustration by Sean Wolcott of Rationale.

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LOS ANGELES

Brick and Mortar

The following is from *Film Forum: Under Construction 2018*.
Photographs by Jan Staller, with an introduction by Joel Coen.

The images that you see here were captured on a worksite for the expansion of Film Forum, a place where people gather with a group of strangers to watch a story unfold—something that is increasingly unusual these days. They are a celebration of an ancient ritual married to a modern technology. The technology develops but the ritual decays.

What do these photographs say about watching movies? What do they recall and what do they suggest? How is it that beneath the formal pleasures of their design, their abstraction, and their use of color, they conjure something concrete about shared experience?

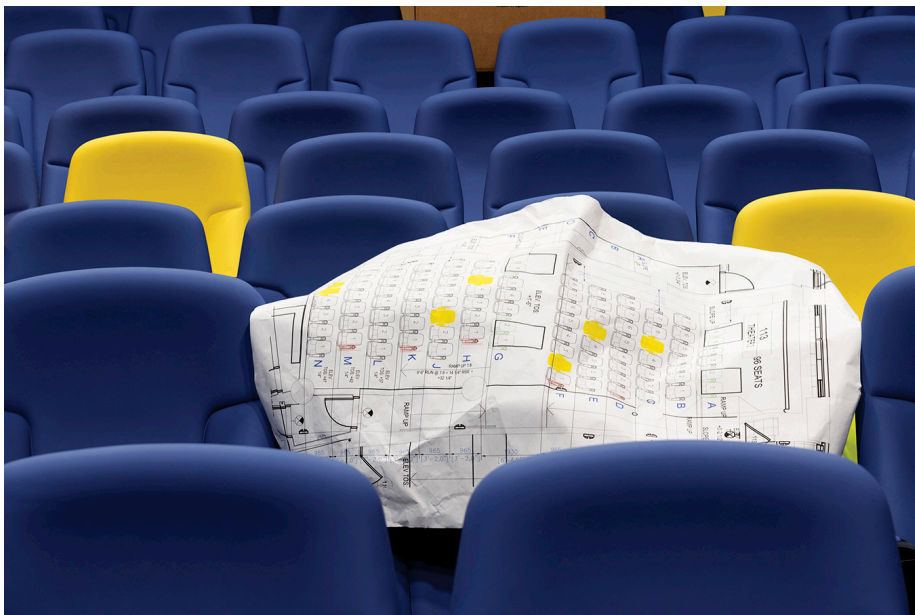
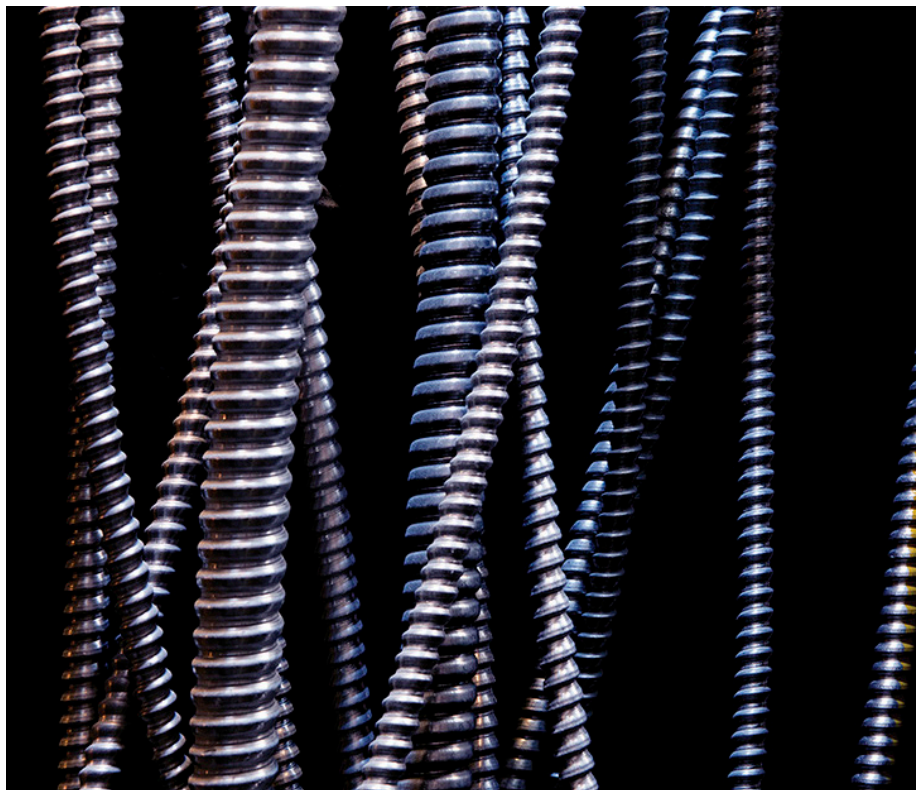
Like a lot of abstractions, and certainly like many of Jan Staller's photographs, these pictures are not only about a surface but the materiality below the surface. In this case the materials are the brick and mortar of the theater itself and the steel and brittle celluloid of projectors, reels and filmstrips—objects that look now like sacraments of the earliest technology of the art form. They are evocative because they are tactile.

My first exposure to the movies was more sterile and electronic. It took place alone, in a dark room, late at night in front of a television set. In this respect it was closer to the way that most people watch movies today. As I got older I went to movie theaters, spending hours of my youth in palaces called The Orpheum, The Lyric, and more prosaically (and appropriately), The Suburban World. There was something fundamentally different about going to a theater. The impact of the experience was magnified literally by the scale of its presentation and emotionally by the act of sharing it with a community. And just as importantly, by its appeal to the sensorium, something that most modern technology abjures. The theater was itself a machine, one that you entered, was turned on, and then would grind into action. Its constituent parts were hidden but somehow felt.

That's part of what these photographs evoke, but for me they also evoke memories of my early days as a film editor, when you felt the film in your hands and heard the clack of the sprockets as it ran through the machines.

But before waxing too nostalgic about the older ways of doing things, it may be useful to think about two movies that I saw for the first time at Film Forum. They were both by F. W. Murnau, a German filmmaker who came to Hollywood in 1926. The first, *Sunrise*, was made in 1927 and is certainly one of the greatest movies of the silent period. It was a huge success, and William Fox, the man who had brought Murnau to America and who was the producer of *Sunrise*, asked him to do another movie. In his youth, Murnau had been something of a gear head—he was fascinated by cameras and new technology. In the interim between *Sunrise* and his next film for Fox, *The City Girl*, sound had been introduced. The new technology was alien to Murnau as an older man. He couldn't reconcile it with his taste or his process and *The City Girl* was made and released as a silent film with title cards instead of dialogue. Watching it now one wonders what it would have been like otherwise. A cautionary tale about aging out of your era.

The movies are wedded to technology, and for better or worse as the technology advances it changes not only how they're made, but what we actually see and how we watch them. At a certain point resistance seems quaint and misguided. The opportunities in most cases outweigh the things we lose. The sensual pleasures of pre-digital machines are probably lost forever, but the act of gathering to watch stories, to be part of an audience, would be dangerous to lose. It is ancient and fundamental. So let's celebrate one of the few institutions that continues to expand that opportunity. These pictures do, and they do something else—they get under the skin.





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